Comments to the working document of the 2nd milestone and answers from the JRC

Preparatory study on textile products

2025

Joint Research Centre

Contents

1 Introduction 3
2 Statistics of received comments 6
3 The online meeting 7
4 Main issues underlined by stakeholders 8
4.1 General issues 9
4.2 Introduction of the working document 11
4.3 Definitions 12
4.4 Scope 12
4.5 Legislation & standards 13
4.6 Market analysis 14
4.7 User Behaviour 14
4.8 Current EUEL criteria 15
4.9 Public Procurement & EU GPP 15
4.10 Section on technology in general 16
4.11 Relevant product aspects 16
4.12 Product aspects in general 19
4.13 Physical durability 20
4.14 Maintenance 22
4.15 Repairability 24
4.16 Waste generation 25
4.17 Recyclability & recycled content 25
4.18 Environmental impacts 27
4.19 Presence of substances & substances of concern 30
4.20 Mutual influence & categorization 33
4.21 Other comments received 34
List of tables 35
Annexes 37
Annex 1. Comments on the working document in general 37
Annex 2. Comments on the introduction 50
Annex 3. Comments on definitions 64
Annex 4. Comments on scope 67
Annex 5. Comments on legislation & standards 97
Annex 6. Comments on market analysis 104
Annex 7. Comments on user behaviour 109
Annex 8. Comments on current EUEL criteria 118
Annex 9. Comments on public procurement & EU GPP 123
Annex 10. Comments on section on technologies in general 123

Annex 11. Comments on relevant product aspects 129
Annex 12. Comments on product aspects in general 164
Annex 13. Comments on physical durability 167
Annex 14. Comments on maintenance 361
Annex 15. Comments on repairability 369
Annex 16. Comments on waste generation 382
Annex 17. Comments on recyclability & recycled content 399
Annex 18. Comments on environmental impacts 504
Annex 19. Comments on presence of substances & substances of concern 525
Annex 20. Comments on mutual influence & categorization 544
Annex 21. Other comments received 545

1 Introduction

This document is part of the development of the preparatory study on textiles for product policy instruments ([1]) (PS). In particular, the PS aims to provide a basis on which the European Commission can consider the development of ecodesign requirements, green public procurement criteria and revised EU Ecolabel criteria for textile products.

The development of the PS includes the direct involvement of stakeholders following the principles of the Sevilla process ([2]), which enables the Joint Research Centre (JRC) of the European Commission to verify with stakeholders the work under development and collect additional evidence on the investigated topics.

Table 1 reports the stages of the project that require the participation of registered stakeholders. Any organisation, institution and citizen can register as a stakeholder by filling in a form on a dedicated webpage ([3]). Stakeholders can register at any stage of the development of the PS.

Table 1. Development of the preparatory study

Milestone	Topic addressed	Date
Initial questionnaire ([4])	Definitions, scope, market analysis, user behaviour, product aspects, EU Ecolabel, EU Green Public Procurement	30 March 2023 – 8 May 2023
1st milestone	Scope, market, user behaviour, current EU Ecolabel criteria, current EU Green Public Procurement criteria	23 February to 22 April 2024
2nd milestone	Technologies, framework and data gaps of environmental and economic model, and a questionnaire about substances and substances of concern	14 November 2024 to 17 March 2025
3rd milestone	Analysis of base case and design options	To be communicated
4th milestone	Policy scenarios, and elements to be included in the Digital Product Passport	To be communicated

The number and topics of the milestones could be modified to improve the involvement of the stakeholders during the development of the preparatory study.

In particular, the 2nd milestone of the PS included the following steps:

- On 21 October 2024, the JRC communicated to all registered stakeholders the date of the workshop about the 2nd milestone and specified the topics to be addressed.
- On 14 November 2024, the JRC shared with all registered stakeholders the working document on Task 4 of the preparatory study ([5]).
- From 14 November to 8 December 2024, registered stakeholders had the opportunity to read the section on product technologies before the online consultation meeting.
- On 2 December 2024, the JRC provided to all registered stakeholders:
    - The detailed agenda of the workshop about the 2nd milestone.
    - The questionnaire on substances and substances of concern ([6]).
- From 2 to 9 December 2024, registered stakeholders had the opportunity to read the questionnaire on substances and substances of concern.

---

1 Project website available at this link. Last accessed on 18 August 2025.

2 With the 'Sevilla process', the Joint Research Centre of the European Commission works together with scientists, industry, non-governmental organisations (NGOs), national authorities and international institutions to take decisions that are underpinned by solid scientific and technical data, and that are based on consensus and transparency. The process is clearly structured within the framework of the Industrial Emissions Directive (2010/75/EU), and it is legally defined in Commission Implementing Decision 2012/119/EU available at this link. More information is available at this link. The process in the preparatory study on textiles is not legally defined, but it will follow the principles of the "Sevilla process".

3 Stakeholders can participate in the development of the preparatory study on textile products by registering via this web form.

4 Initial questionnaire. Preparatory Study on textiles for product policy instruments – the initial questionnaire. Available at this link.

5 Task 4 of the preparatory study on textile products - November 2024. Available at this link. Last accessed on 18 August 2025.

6 SoC Questionnaire Textile Apparel – 2nd milestone. Available at this link. Last accessed on 18 August 2025.

— On 9 and 10 December 2024, registered stakeholders and JRC attended the online workshop on the 2nd milestone. The slides presented at the meeting were made available on the project's website:

  - Presentation given on 9 December 2024 ([7]).
  - Presentation given on 10 December 2024 on substances and substances of concern ([8]).
  - Presentation given on 10 December 2024 on Slides of the workshop – Day 2 on framework of environmental and economic model ([9]).

— On 18 December 2024, the JRC communicated to all registered stakeholders how to contribute to the documents related to the 2nd milestone. Information was also available on the project's website in the section Project Plan.

— On 27 January 2025, the JRC shared with all registered stakeholders a document with answers to stakeholder's questions on the analysis of technologies in the context of physical durability ([10]).

— From 18 December 2024 to 3 March 2025, registered stakeholders were able to provide comments in writing to the working document.

— From 18 December 2024 to 10 March 2025, registered stakeholders were able to contribute to the questionnaire on substances and substances of concern.

— From 18 December 2024 to 17 March 2025, registered stakeholders were able to contribute to improve the inventory and framework of the environmental and economic model.

Aim

This document reports all comments provided by registered stakeholders to the working document about the 2nd milestone ([11]) and corresponding answer from the JRC to the main topics highlighted by stakeholders. All contributions were carefully analysed. Only topics related to the 2nd milestone were considered in the answers provided by the JRC.

Structure of the document

After the introduction, Section 2 reports some statistics of the comments received.

Section 3 provides some insight about the workshop on the 2nd milestone.

Section 4 reports the main issues highlighted by stakeholders and the corresponding answers provided by the JRC. The section is divided in subsections following the main parts of the working document:

— Section 4.1: general issues

— Section 4.2: introduction of the working document

— Section 4.3: definitions

— Section 4.4: scope

---

7 Slides of the workshop – Day 1 on Task 4. Available at this link. Last accessed on 18 August 2025.

8 Slides of the workshop – Day 2 on substances and substances of concern. Available at this link. Last accessed on 18 August 2025.

9 Slides of the workshop – Day 2 on framework of environmental and economic model. Available at this link. Last accessed on 18 August 2025.

10 Answers to stakeholder's questions on the analysis of technologies in the context of physical durability – 2nd milestone. Available at this link. Last accessed on 18 August 2025.

11 Working document of the 2nd milestone. Available at this link. Last accessed on 18 August 2025.

- Section 4.5: legislation & standards
- Section 4.6: market analysis
- Section 4.7: user behaviour
- Section 4.8: current EU Ecolabel criteria
- Section 4.9: Public Procurement & EU GPP
- Section 4.10: section on product technologies in general
- Section 4.11: relevant product aspects
- Section 4.12: Product aspects in general
- Section 4.13: physical durability
- Section 4.14: maintenance
- Section 4.15: repairability
- Section 4.16: waste generation
- Section 4.17: recyclability & recycled content
- Section 4.18: environmental impacts
- Section 4.19: presence of substances & substances of concern
- Section 4.20: mutual influence & categorization
- Section 4.21: other comments received

Each subsection refers to a specific annex that reports all comments received on that part.

The submitted comments were not modified by the JRC, with exception of removal of words that could reveal the identity of the stakeholder submitting the comment. Squared brackets with ellipsis "[…]" was reported instead of the name of the stakeholder.

This document reports only comments that submitters explicitly agreed to be publicly available.

The JRC thanks all stakeholders that provided comments to the working document. The contribution from stakeholders allowed the improvement of the 2nd milestone of the PS.

2 Statistics of received comments

The consultation on the 2nd milestone received 2 380 contributions to the working document by 108 types of stakeholders. The JRC received 1 755 contributions via EU Survey, and 625 contributions via the functional mailbox. **Table 2** and **Table 3** report additional information.

Table 2. Stakeholders providing contributions

Type of stakeholder	Number	Percentage (%)
Certified laboratories	1	1
Governments	12	11
Industries (as single entities)	30	28
Industry associations	42	39
NGOs	13	12
Research institutes including universities	7	6
Others	3	3

Table 3. Number of contributions submitted and availability for publication

Type of stakeholder	Yes	No	Not declared	Total	Percentage of the total (%)
Certified laboratories	37	0	0	37	2
Governments	144	5	9	158	7
Industries (as single entities)	288	280	49	617	26
Industry associations	717	210	293	1 220	51
NGOs	249	8	14	271	11
Research institutes including universities	55	0	0	55	2
Others	15	7	0	22	1

3 The online meeting

During the online workshop held on 9 December 2025, the JRC asked specific questions to the stakeholders. This section lists these questions.

Questions regarding the **relevant product aspects**:

1. Do you agree with the relevant aspects selected? Why?

2. Do you agree with the grouping performed? Why? How it can be improved?

Questions regarding the product aspect of **physical durability**:

1. Do you agree with the methodology describing physical durability? Why? How can it be improved?

2. Would you agree to share data/studies on textile apparel composition?

3. Do you agree with the categories proposed? Why?

4. Do you agree with currently not analysing physical durability of accessories? Why? What could be an alternative approach?

5. Do you agree with the intervals chosen when describing BC, BAT and BNAT? Why? How would it be improved?

Questions regarding the product aspects of **maintenance** and **repairability**:

1. Do you agree with the methodologies used? Why? How can they be improved?

2. Do you agree with the description of BC, BAT and BNAT? Why? How can they be improved?

Questions regarding the product aspects of **waste generation**, **recyclability** and **recycled content**:

1. Do you agree with the framework adopted to describe recyclability? Why? How can it be improved?

2. Do you agree with the framework adopted to describe recycled content? Why? How can it be improved?

Questions regarding the product aspect of the **environmental impacts**:

1. Do you agree with the framework adopted to describe environmental impacts? Why? How can it be improved?

Questions regarding the product aspect of the **substances of concern**:

1. Do you agree with the description made of substances of concern in textiles?

2. How can it be improved? What other aspects should be addressed?

3. How effective are current means to identify and track SoC in the textile supply chain?

4 Main issues underlined by stakeholders

This section reports the main issues reported by stakeholders in their comments. The issues are listed per section of the working document.

4.1 General issues

Table 4. General issues and answers by the authors

Issue reported by the stakeholders	Answer
Difficult understanding of the process that will generate the ecodesign requirements. In particular, the description of technologies was understood as ecodesign requirements.	In lines 45-79, the working document of the 2nd milestone describes the methodology that is followed to develop the ecodesign requirements. This methodology has been applied in the last numerous years for the development of preparatory studies in the framework of the Ecodesign Directive. The JRC is open to understand which part of the methodology is not clear to the stakeholders. It is not clear what has generated confusion in the understanding of the content of section 9, which analyses the product technologies (lines 2518-2538) and does not report any reference to proposal of ecodesign requirements. Lines 70-73 report that the design options are part of the Task 6, which is not addressed in the working document of the 2nd milestone. The scope of the 2nd milestone is reported in Table 1 at line 92 and in lines 118-148, where there is a description of the content of the 2nd milestone.
The working document lacks recent data.	The working document of the 2nd milestone was produced consulting the most recent available information. The JRC is open to receive more recent data and evidence related to the investigated topics.
The working document lacks attachment to the realities of the sector.	The working document of the 2nd milestone was based on information from literature and consultation with stakeholders. In particular, the consultation with stakeholders is described in lines 85-113. The 2nd milestone is part of the development of the preparatory study. More inputs and contributions will be collected until the end of the process. The JRC is open to understand which specific parts of the preparatory study do not sufficiently include the industrial reality. The JRC always listen to the stakeholder's opinions. Any opinion should be based on arguments possibly supported by data and evidence.
The working document lacks acknowledgement of the complexity of global value chains.	Section 5.6 of the working document of the 2nd milestone addresses the characteristics of the value chain. In particular, lines 1551-1552 report: "The value chain of textile apparel is defined as global, long, complex, fragmented and opaque (Cai and Choi, 2020; UNECE and UNTRADE, 2020; Brondino, 2022)". A deeper analysis with references is reported in the rest of the section. The JRC is open to enrich this section with further insights from the stakeholders.
The working document lacks recognition of the industry's sustainability initiatives, particularly in relation to supply chain manufacturing outside Europe.	It is not clear where in the working document of the 2nd milestone the JRC should have reported the initiatives suggested by the stakeholders. The environmental and economic analysis of the products in the scope will be performed in the 3rd milestone as reported in lines 65-73 and Table 1 at line 92. In the context of the 2nd milestone, during the workshop held on 10 December 2024, the JRC asked for inputs to the environmental and economic assessment that will be part of the 3rd

Issue reported by the stakeholders	Answer
	milestone. Slides of the meeting are available on the project's website at this link. Specific directions on how to contribute were sent to all registered stakeholders via email on Wednesday 18 December 2024 and reported on the project website in the section Project Plan.
The working document lacks legislative coherence, with different policy tools like the Waste Framework Directive, the Textile Labelling Regulation, and the ESPR obligations on unsold goods.	There are ongoing studies for all policy tools listed by the stakeholders. Each study has its own consultation process with stakeholders. The JRC is constantly communicating with colleagues involved in the development of these studies to harmonise choices made in all of them. The JRC is open to specific suggestions on how to improve this harmonization and coherence among the ESPR, WFD and TLR.
The working document lacks the inputs provided by stakeholders in previous consultations of the development of the study. During the consultations, the JRC asks for data and evidence shared by the industry. However, it remains unclear how this sensitive information will be utilised or integrated into the process, raising concerns as well about the confidentiality of the data.	The JRC always listen to the stakeholder's opinions. Any opinion should be based on arguments possibly supported by data and evidence. The JRC is the only responsible of the analysis carried out in the preparatory study, which must be performed in a specific legislative framework described in section 1 of the working document of the 2nd milestone. Any information shared by stakeholders with JRC can be anonymised and treated confidentially if asked by the stakeholder. This means that the specific data shared by the stakeholder with the JRC will not be publicly available or recognisable in any JRC output. During the workshop held on 10 December 2024, the JRC asked for inputs to the environmental and economic assessment that will be part of the 3rd milestone. Slides of the meeting are available on the project's website at this link. Specific directions on how to contribute were sent to all registered stakeholders via email on Wednesday 18 December 2024 and reported on the project website in the section Project Plan. Data requested will be used to analyse the environmental and economic characteristics of the products in the scope of the PS.
The working document has AITEX as the main reference body for conducting the study.	AITEX is JRC's consultant for the development of the PS. Lines 85-113 of the of the Working document of the 2nd milestone describe the development of the PS and the involvement of the stakeholders. The proposal included in the 2nd milestone was intentionally open to the contribution and experience of all stakeholders supporting the development of the PS. The initial JRC's analysis of product technologies in the context of physical durability was initially based on AITEX's 40 years of experience in certification and testing of textile products, and developing technical solutions along the textile value chain. The consultation related to the 2nd milestone aimed to enrich this initial analysis with the inputs of all stakeholders.
Since there is lack of data and information from the industry, the first delegated act could be used to fill the current knowledge gaps.	The development of the PS will investigate any potentially useful options to improve the environmental impacts generated by the consumptions of textile apparel in EU.
The report focuses exclusively on fashion, neglecting industrial textiles and textile services. This raises concerns about how these sectors are addressed.	Section 3.2 describes the scope of the PS. Any product excluded from the scope will be potentially addressed by future legislations.
The working document should: • Use robust and diverse references	The development of the PS includes the involvement of the stakeholders that can contribute to the improvement of the analysis – see lines 85-113 of the working document of the 2nd milestone.

Issue reported by the stakeholders	Answer
• Build upon established industry standards and practices • Engage with relevant textile organisations and experts to gather additional data. This approach will ensure that policies are well-informed and reflective of the industry's realities.	The JRC is open to receive specific contributions on any topic addressed in the PS. The JRC invites stakeholders to provide their contributions always in the context of the legislative framework setting the ground of the PS. The JRC is developing the PS following the principles of the Sevilla process because it is proved to be a good tool to produce policies that consider the industry's reality.
The study places insufficient emphasis on systemic drivers of overproduction and excessive consumption, such as aggressive marketing strategies and fast fashion business models, which significantly influence user behaviour and apparel disposal. The document over-emphasises quality-related reasons for disposal while overlooking the central role of overconsumption and wardrobe overflow as key factors.	The PS is developed in the framework of the ESPR. The analysis performed in the working document of the 2nd milestone already addresses the topics mentioned by the stakeholders. The JRC is open to specific inputs on how to improve the current analysis in the framework of the ESPR.
Many concerns were reported on the PEF methodology.	The working document of the 2nd milestone does not use the PEF methodology. Lines 65-73 report that Tasks 5 and 6, which will be addressed in the 3rd milestone, will include an environmental and economic analysis with the use of the Life Cycle Assessment and Life Cycle Costing. The information provided in the context of the PEFCR development for Apparel and Footwear (PEFCR A&F) was considered in the PS to the extent possible. The development of the PS and the PEFCR A&F are two separate processes. In the context of the 2nd milestone, during the workshop held on 10 December 2024, the JRC asked for inputs to the environmental and economic assessment that will be part of the 3rd milestone. Slides of the meeting are available on the project's website at this link. Specific directions on how to contribute were sent to all registered stakeholders via email on Wednesday 18 December 2024 and reported on the project website in the section Project Plan. The working document of the 3rd milestone will transparently report the potential limitations of the economic and environmental analysis performed. The JRC is open to practical suggestions from stakeholders that will help to overcome these potential limitations.

4.2 Introduction of the working document

Table 5. Main comments on the introduction and answers by the authors

Issue reported by the stakeholders	Answer
Critics on the suitability of the Methodology for Ecodesign of Energy-related Products (MEErP) in the context of textile products. In particular, when the product lifespan is addressed. Unlike household appliances such as dishwashers and washing machines, which are typically used until they cease functioning, extensive research indicates that most clothing is discarded long before reaching the end of its usable life.	The preparatory study largely addresses the effect of the user behaviour on the environmental and economic impacts of the consumption of textile apparel. The working document of the 2nd milestone addresses this in sections 6 and 9. The following milestones will integrate in the analysis the information collected in sections 6 and 9.

Issue reported by the stakeholders	Answer
	The JRC is open to proposals describing in detail alternative methodologies that would improve the analysis for meeting the objectives of the preparatory study.
Need for harmonisation across Ecodesign, GPP and EU Ecolabel criteria.	The preparatory study is performed to provide the same scientific and technical basis for the three policy tools. The EC is committed to harmonise the sustainability parameters used.

4.3 Definitions

Table 6. Main comments on definitions and answers by the authors

Issue reported by the stakeholders	Answer
The process of specific fibres like acrylic generate waste that are not fibres. The current definition of post-industrial waste does not address this.	The definition addresses waste that contains textile fibres. This is in line with the ongoing work of the End of Waste criteria.
Lack of alignment between the definition of technical textiles and Table 3	Table 3 was updated.
Alignment with revision of the Waste Framework Directive (WFD).	The preliminary text was consulted. A further check will be performed after adoption of the legal text.
Change of the definition of waste.	The preparatory study on textiles cannot change the definition of waste reported in the Waste Framework Directive.
In the definition of 'Resource use', the phrase 'Water and energy are not considered within resources under the scope of ESPR' requires clarification, as water and energy remain resources even if addressed in separate chapters. Annex I, point (g) of the ESPR refers to water and energy as resources while distinguishing them from other resources.	The text was updated.

4.4 Scope

Table 7. Main comments on scope and answers by the authors

Issue reported by the stakeholders	Answer
Missing alignment with the revision of the WFD, which addresses home/interior textiles and footwear.	Implementing Acts under the Waste Framework Directive (WFD) will define the EPR schemes for all type of waste included in scope of the WFD. These Implementing Act will consider the ecodesign requirement set in Delegated Acts under the ESPR and additional studies to cover all waste in the scope of the WFD.
Inclusion of clarifications about the definition of the industrial ecosystem of textiles.	As referenced in the text, the definition is taken from the Annual Single Market Report 2021. The JRC cannot change the definitions provided by other sources. This definition is only used to narrow down the products and the industry involved in the definition of the scope.
Are leather products included in the scope of the PS?	Lines 386-388 of the working document of the 2nd milestone reports: "The authors understand that fashion includes leather and fur apparel, which are not part of this PS in view of its focus on textile products according to the definition under the TLR."

Issue reported by the stakeholders	Answer
	Additionally, the scope is defined in section 3.2. If a product is not made of at least 80% in weight of textile fibre, it is not included in the scope. Leather is not a textile fibre.
Why there is the limitation of 80% fibre content?	This limitation was adopted to align the study with the Textile Labelling Regulation (TLR).
Definition of product categories in the scope of the PS	The initial categorization of the products in the scope was taken from the PEFCR A&F. The analysis in Task 4 provides the final categorization adopted for the development of the future ecodesign requirements. The aim of the initial categorization is only to describe the products included in the scope. This concept was clarified in the new version of the working document.
Inclusion of workwear and footwear, which have specific characteristics because they solve specific functions besides those reported in Table 3	The JRC is open to receive suggestions on how to improve Table 3 when describing the function of workwear and footwear. Sections 3.1 and 3.2 of the working document of the 2nd milestone detail the reasoning to select the current scope. Additionally, Lines 141-142 report: "the approach on workwear and sportswear will be reassessed when the PS addresses task 6 of the MEErP on ecodesign options."
Exclusion of disguise costumes which are not toys as defined by Directive 2009/48/EC	The exclusion of these products would need a specific distinction from the other products included in the scope. The JRC is open to suggestions about an objective definition of disguise costumes that would allow Market Surveillance Authorities to check the corresponding requirements.

4.5 Legislation & standards

Table 8. Main comments on legislation and standards and answers by the authors

Issue reported by the stakeholders	Answer
Importance of aligning ESPR with WFD and CSRD, especially regarding EPR and eco-modulation.	The interlinks between ESPR, WFD and CSRD are acknowledged. Alignment with key EU legislation is a guiding principle of the analysis. Consistency will be pursued particularly for labelling and reporting requirements across instruments.
Socioeconomic dimension of natural fibres like cotton and their alignment with SDGs is missing.	The work of the Preparatory Study aligns with the broader ambition of the Commission as set out in Recital 10 of the ESPR, which highlights the Regulation's role in supporting the transition to a non-toxic circular economy and in contributing to the Sustainable Development Goals (notably SDG 12 on responsible consumption and production).
Limitations of microfibre loss test methods. Main issues include: inability to differentiate fibre types; lack of product-level applicability; no insight into environmental impacts; absence of methods for air/friction release; and lack of standardisation in washing machine conditions. These limitations hamper implementation and strategy development.	The noted limitations will be addressed in Task 5 of the Preparatory Study, which will be addressed in the 3rd milestone.

4.6 Market analysis

Table 9. Main comments on market analysis and answers by the authors

Issue reported by the stakeholders	Answer
Several comments emphasize the need for accurate and up-to-date data, suggesting the use of primary data and updated sources to ensure reliability.	JRC considered all the reliable sources provided by stakeholders during the consultation to update the market data.
Many stakeholders highlight the importance of improving the knowledge about recycling processes, especially for mixed-material textiles, and the need for updated information on recycling technologies and their maturity.	Section 9.2.5.1 was revised and updated to reflect the latest information on recycling technologies and their maturity.

4.7 User Behaviour

Table 10. Main comments on user behaviour and answers by the authors

Issue reported by the stakeholders	Answer
Data on consumer behaviour is outdated and not representative; need for updated EU-wide studies.	We acknowledge the importance of having current and comprehensive information to support robust analysis. The Preparatory Study draws upon the best sources available to the JRC team at this time, and we remain attentive to emerging research that can further inform this study. The JRC is open to receive additional data and evidence to improve the current understanding of this topic.
Key aspects such as acquisition modes (e.g. gifting), attitudes toward synthetics, and comfort are missing or underdeveloped.	We acknowledge that acquisition modes, attitudes toward synthetic materials, and comfort are relevant factors in consumer behaviour. These aspects will be noted as part of the broader context when interpreting the available data. The authors did not find any study focussing on these topics. The JRC is open to receive additional data and evidence to improve the current understanding of these topics.
Standardised sizing is a major cause of returns; insufficiently addressed.	The issue of returns due to sizing inconsistencies has been better reflected in the Working Document, however, recent specific studies providing comprehensive and up-to-date data on standardized sizing and its impact on returns remain limited. The JRC is open to receive additional data and evidence to improve the current understanding of this topic.

4.8 Current EUEL criteria

Table 11. Main comments on current EUEL criteria and answers by the authors

Issue reported by the stakeholders	Answer
EU Ecolabel's geographical and regulatory scope may exclude globally relevant standards. Recognition of established international standards such as RCS and GRS to ensure transparency in recycled content claims and avoid creating overlapping certification schemes.	Commission Decision 2014/350/EU does not refer to specific certification systems, but describes how to assess and verify the recycled content. In particular, the legal text reports: *"Assessment and verification for recycled content: recycled content shall be traceable back to the reprocessing of the feedstock. This shall be verified by independent third party certification of the chain of custody or by documentation provided by feedstock suppliers and reprocessors. Where required by criterion 13 declarations and laboratory testing results shall be provided by fibre manufacturers and feedstock suppliers."* According to the EU Ecolabel framework, Competent Bodies are in charge of accepting the use of specific certification systems complying with the Commission Decision 2014/350/EU.
• Questioned whether durability and recycled content requirements can be effectively applied across broad product categories, given variability within categories (e.g. different types of jackets or T-shirts). • Setting fixed requirements at product category level could reduce the ability to target key environmental impacts effectively. • Existing ecolabels already set fibre- and function-specific quality criteria (e.g. washing resistance, seam strength) and suggested these could be a basis for ESPR requirements, independent of fixed product categories. • Feasibility of recycled content requirements in question, especially when fibre type strongly influences recyclability and product quality (e.g., polyester vs. cotton T-shirts).	In this section we are analysing the current EUEL criteria. The revision of EUEL criteria will be based on the potential future Ecodesign criteria and will follow the timeline reported in slide 10 of the presentation provided in the last workshop (https://susproc.jrc.ec.europa.eu/product-bureau/sites/default/files/2024-12/2nd_mil_day_1_v20241209.pdf).

4.9 Public Procurement & EU GPP

Table 12. Main comments on public procurement & EU GPP and answers by the authors

Issue reported by the stakeholders	Answer
The whole section highlights the lack of data on this topic. The generation of relevant data is crucial for following proposals for GPP	This section reports the state of the art. Any potential future decision will consider the characteristics of the available data. The JRC is open to receive additional data to improve the current understanding of this topic.

4.10 Section on technology in general

Table 13. Main comments on the section on technology in general and answers by the authors

Issue reported by the stakeholders	Answer
The term technology as it is used in the working document is misleading. Technology is commonly defined as the science of transforming raw materials and substances into finished products and consumer goods by applying scientific and technical knowledge. What is reported in this section are products features. The terms and definitions should be harmonized in the various legislation in the EU. BAT is used for the term best available technique. See definition in article 3(10) of the Industrial Emissions Directive (2010/75/EU).	The terminology used in the working document belongs to the MEErP and it is only used for the development of the preparatory studies. Additionally, the working document aligns with the Industrial Emission Directive when describes the process techniques used for the manufacturing or treatment of the products in the scope.
Missing analysis of clothing physiology, especially when addressing the durability of the product. Clothing physiology is the interaction between the human body and the item of clothing which comprise aspects like moisture management, heat transport, skin sensorial comfort or ergonomic comfort.	Section 9.2.1 on durability was revised without introducing the concept of clothing physiology. The authors are aware that the physical durability of textile apparel is influenced by what the stakeholder defines as clothing physiology. These aspects are indirectly addressed in section 9.2.1, in particular when addressing the aging process.
The inclusion of the Best Not yet Available Technologies (BNAT) introduces significant challenges because it relies on speculative assumptions about future technologies, industry practices, and consumer behaviour. This makes difficult the comparison with current benchmarks. The definition of BNAT assumes that these innovations will be feasible and scalable, but this might not be the case in the reality. This approach risks imposing unrealistic expectations on stakeholders, potentially alienating them and detracting from actionable progress in sustainability efforts.	The definition and use of the BNAT is defined in the MEErP and it will be used in Task 6 for the definition of the design options. Potential requirements will consider the scalability of BNATs.

4.11 Relevant product aspects

Table 14. Main comments on relevant product aspects and answers by the authors

Issue reported by the stakeholders	Answer
The identification of relevant product aspects. Although most of the comments received on this topic have agreed with the JRC on the fact that all product aspects (except possibility of recovery of materials) are relevant to some extent, some stakeholders have made remarks or shown some sort of disagreement with the conclusions attained in the PS. For instance, two stakeholders consider that upgradability should be considered as a non-relevant aspect, since it is unlikely that consumers would purchase upgrades for items such as trousers, sweaters, socks or jackets. They consider that upgradability in the context of textile apparel should be considered equivalent to reparability.	The main purpose of this section was to evaluate the relevance of the 16 product aspects in the Article 5 of ESPR, in the context of textile apparel. The JRC agrees that reparability and upgradability can be considered as nearly equivalent in the context of this product group, and thus have grouped these two aspects together in section 9.1.3 of the PS. The JRC disagrees on the exclusion of waste generation and refers to the rationale in section 10.9.1.16 of the PS to consider expected generation of waste as an individual aspect with relevance in the context of textile apparel.

Issue reported by the stakeholders	Answer
Another stakeholder proposes to exclude expected generation of waste from the list of relevant product aspects, since this is mostly related with the product's physical and emotional durability.	
Grouping of relevant product aspects. Some stakeholders have shown disagreements with some of the groupings proposed in the working document. Various stakeholders disagree with grouping durability with reliability and reusability. In their view, reliability should also consider the specific additional functions that technical textile apparel (such as sportswear and workwear) is marketed with. Moreover, reusability should be considered in terms of whether subsequent users are able and willing to use the same product for a long period of time, and whether the functionality of the textile apparel is conducive to being reused by multiple users. Other stakeholders consider that recyclability and recycled content should not be grouped together. In their view, the proportion of recycled material in the end product and its use as a raw material has a completely different perspective than the return of textiles as possible recyclable material. A distinction should be made here because the verification of recyclates in the end product cannot be standardised across different components and materials.	The purpose of grouping relevant product aspects is to streamline the multi-criteria analysis that must be performed in the following tasks of the PS, which will take into account the specificities of each relevant product aspect. Although the JRC understands the concerns from stakeholders on these aspects, the study team considers that enough rationale has been provided to support the proposed grouping of product aspects.
Methodology for the identification of relevant product aspects. Some stakeholders have recommended the JRC to acknowledge that it entails significant challenges to apply the structure of the MEErP to textile products, as it does to evaluate sustainability aspects of these products based on BNAT. Some stakeholders have shown disagreement with the first step of this methodology (generic description of textile apparel), stating that textile apparel might be considered as non-complex or even consumable products. Other stakeholders point out that in the third step of the methodology (qualitative assessment), the economic aspect is mentioned as a component, together with other aspects such as technical, socioeconomic and environmental. In their view, the economic aspect should be the main focus of the study.	The relevance of product aspects has been evaluated following a methodology described in section 9.1.1 of the PS, consisting of three steps. The JRC agrees with this first statement. . Although the JRC understands the reasons expressed by some stakeholders to suggest that textile apparel might be considered as non-complex or consumable products, the team considers that it has substantiated sufficiently the rationale to sustain that textile apparel are complex and durable products. The JRC does not agree with the last statement on economic aspects, as the team considers that the relevance of product aspects should be evaluated considering technical, socioeconomic and environmental aspects at the same level of importance.
Guiding questions for the identification of non-relevant aspects. Some stakeholders have requested more transparency on the methodology. Particularly, they have expressed interest in having more detail on the selection of these guiding questions. Some stakeholders have expressed that before addressing some of the product aspects in the context of textile apparel, the guiding questions need to be defined clearly. Other stakeholders consider that the guiding questions fail to identify relevant product aspects. Others add that the choice and responses to the guiding questions lacks scientific basis and justification, and overlook important aspects that determine the criteria's relevance, feasibility or trade-offs. In their view, these guiding questions should be better structured, neutral and more sophisticated. They add that the guiding questions take too little or no account of economic feasibility.	The second step of the methodology to evaluate the relevance of product aspects consists in providing answers to some generic guiding questions. The JRC understands the concerns around the guiding questions. These questions are the second step of a broader methodology, currently under development and expected to be applied to a wider range of products (and not only to textile apparel). This is the reason why some of these questions might not seem fully applicable to this product group. In any case, the purpose of the guiding questions –as stated in section 9.1.2 of the working document of the 2nd milestone- is simply to identify product aspects that are evidently not relevant for textile apparel. As a consequence of this step in the PS, no product aspect was considered as non-relevant. A more comprehensive analysis of the relevance of product aspects has been carried out in the subsequent step of the methodology (qualitative assessment).
Product aspects and required characteristics. Several stakeholders have made comments requiring clarification or expressing disagreement on some elements of this table. Most of the comments received on this table are related with durability, reusability, recyclability, reliability, and reparability. Some comments have also been	In section 9.1.3 of the PS, the product aspects identified as relevant have been grouped in order to streamline the multi-criteria analysis performed in subsequent tasks. To guide the grouping of product aspects, the JRC presented Table 41 of the working document of the 2nd milestone, where some of the typical characteristics of products were linked with each of the product aspects. The JRC considers that the use of Table 41 may have been misunderstood, potentially

Issue reported by the stakeholders	Answer
received on water use and water efficiency, expected generation of waste or resource use and resource efficiency.	due to a lack of clarity on this section of the PS. It appears that several stakeholders have understood that this table is an indication of the policy options that the JRC is planning to recommend as a conclusion from the PS. It seems to also have been understood that, for a specific product aspect, products should fulfil all of the listed required characteristics (while this is not the case). The JRC would like to clarify that Table 41 was produced with the sole purpose of developing Table 42, and therefore guiding the grouping of product aspects. The rationale followed is that, when certain product aspects share several required characteristics of products – in other words, when certain product aspects share several product parameters- they can be grouped together and treated together (acknowledging that they might not cover exactly the same product aspect). This has been further clarified in the introduction of section 9.1. to avoid any misunderstanding and misinterpretation of the tables.
Interaction between product aspects and product parameters. Several stakeholders have made comments requiring clarification or expressing disagreement on some elements of table 42. Some stakeholders have pointed out potential interactions between product aspects and product parameters that have now been shown in Table 42.	In section 9.1.3 of the working document of the 2nd milestone, the product aspects identified as relevant have been grouped in order to streamline the multi-criteria analysis performed in subsequent tasks. To guide the grouping of product aspects the JRC presented Table 42, which indicates the potential interaction between product aspects and product parameters reported in Annex I of ESPR. The rationale followed is that, when certain product aspects share several product parameters they can be grouped together and treated as if they are equivalent product aspects (acknowledging that they might not be exactly the same product aspect). The JRC has reviewed these suggestions and in most cases has implemented the necessary changes in Table 42, when the feedback received by stakeholders was well substantiated. The changes made in the table did not lead, however, to changes in the grouping of product aspects proposed by the JRC in the PS.
Missing references to support statements. Some stakeholders have expressed that a few statements made by the JRC in this section were not fully substantiated with proper scientific references. This is the case of, for instance, statements such as "the quality of mechanically recycled fibres is generally lower than that of virgin fibres" or "durability is directly related with product lifespan". Some other stakeholders have recommended the JRC to use stronger and more diversified references to provide evidence-based scientific support to the policy making process (without being specific on any section of the PS).	In cases such as the ones mentioned in this section, when no clear reference could be found to support the statement, to reinforce the robustness of the PS, the statement was removed from the text. JRC welcomes any suggestion to additional scientific references that can enrich the analysis performed in the preparatory study.
Missing content or data. Some stakeholders have considered that some of the qualitative assessment lacks some content or data that should be included in the PS. For instance, some stakeholders consider that the JRC has not extensively analysed or measured the connection between business models and the impact of a single product. Other stakeholders point out that the PS does not take into account critical considerations which are important to scale the recycling industry, nor trade-offs between different product aspects. Moreover, other stakeholders are concerned with the reduced amount of information provided on natural fibres, particularly organic cotton. Additional information has been also requested from different stakeholders on product aspects such as recyclability, material recovery or microplastics release.	In the qualitative assessment, the JRC has evaluated each product aspect from the perspective of textile apparel, considering its technical, environmental and socioeconomic characteristics. This analysis was used to conduct the qualitative assessment of relevance for each product aspect. The JRC acknowledges that some of the feedback provided by stakeholders on this section is relevant. However, the JRC would like to highlight that this lack of information does not change the identification of relevant product aspects –which is the main purpose of this section- nor the grouping of product aspects proposed. Moreover, the JRC reminds that this section is purely about the identification of relevant product aspects, and not about providing all of the relevant information and data regarding on each product aspect. The comprehensive analysis of the relevant product aspects is carried out in subsequent sections of the PS.

4.12 Product aspects in general

Table 15. Main comments on product aspects in general and answers by the authors

Issue reported by the stakeholders	Answer
The working document does not acknowledge industrial initiatives and thus the current reality. The reference to AFIRM/ZDHC is an exception. The JRC is encouraged to consider the efforts the industry have done to develop for example the traceability systems of Textile Exchange, the knowledge gathered by The Microfiber Consortium (TMC) and the Apparel & Footwear Quality Association (AFQA).	The JRC was and is always open to receive data and evidence about the work performed by the industry. The JRC welcomed the inputs received from The Microfiber Consortium (TMC). As reported in line 2764-2765 of the working document of the 2nd milestone, the assessment on microplastics release will be part of the Task 5 in the 3rd milestone. On 15 April 2025, JRC received the position paper of AFQA about physical durability. The document did not include data or evidence generated in performed studies. The contribution from AFQA was analysed as all the contributions submitted by stakeholders. On 28 February 2025, JRC got access to raw data and information generated by the Durhabi project. These data and evidence will be taken into consideration in the 3rd milestone. The available traceability systems will be considered when specific ecodesign requirements will need a suitable verification system. The JRC welcomes any further contribution from any industry's initiative.
Business models and user behaviour The goal of the ESPR is to regulate products, not business models. The report should be based on scientific criteria rather than qualitative opinions and speculations about the influence of business models on product design and environmental impacts. In the context of ecodesign requirements, user behaviour cannot be controlled or predicted by designers and manufacturers. Therefore, to ensure legal certainty, ecodesign legal requirements should be founded on evidence-based, measurable aspects related to controllable product factors during design and manufacturing. Uncontrollable and speculative aspects, such as consumer behaviour, should be excluded from the scope of the report.	Article 1 of the ESPR states that Regulation 2024/1781 aims to improve the environmental sustainability of products to reduce the overall environmental footprint over the entire life cycle. In this context, the analysis of the environmental impacts generated by the consumption of products must include all factors playing a role. The aim of the preparatory study is to provide a complete understanding of the ecosystem affecting the consumption of the products. Even if the business model and the user behaviour cannot be regulated via the ESPR, they play an important role in the generation of the environmental impacts of the products in the entire life cycle. The JRC welcomes any quantitative data and evidence correlating the effects of specific business models on the consumption of these products and their effects on the environment. As reported in line 2518-2519 of the working document of the 2nd milestone, Section 9 provides a general technical analysis of the products in the scope. This is done in the context of the relevant ecodesign aspects. Task 6 in the 3rd milestone will include ecodesign requirements.

Issue reported by the stakeholders	Answer
The analysis of process techniques excessively simplifies the description of production processes that enhance technical and qualitative diversity. The report should more accurately detail how different processes can contribute to overall sustainability based on industry best practices supported by data.	The current description of the processes and techniques are described to meet the aim and scope of the preparatory study. The JRC welcomes specific suggestions for specific process techniques in the context of specific ecodesign aspects. This input will improve the understanding of the reality and better support the development of potential ecodesign requirements.

4.13 Physical durability

Table 16. Main comments on physical durability and answers by the authors

Issue reported by the stakeholders	Answer
There are several indications that point to the various technical factors influencing the physical durability and performance of textile products: Fibre type and yarn characteristics / Spinning, weaving, and fabric construction / Finishing and surface treatments / Product design, construction, and assembly.	These factors serve to illustrate the complexity of apparel textiles. Figure 21 of the Working document of the 2nd milestone updated considering new factors indicated in the comments
Proposal for alignment with industrial practices and recommendations, considering frameworks such as PEF (Product Environmental Footprint), DURHABI study and other similar initiatives. Durability assessments, considering requirements and product categories, should align with industry standards like PEFCR and DURHABI.	On 28 February 2025, JRC got access to raw data and information generated in the Durhabi project. On 2 May 2025, the development of the PEFCR A&F was finalized and made publicly available. The knowledge generated by these studies will be part of the 3rd milestone.
Questioning of Aitex experience/knowledge to perform the analysis, indicating also that it is important to note that AITEX should not be cited as the sole source of information.	AITEX is JRC's consultant for the development of the PS. AITEX's 40 years of experience in certification and testing of textile products, and developing technical solutions along the textile value chain. Lines 85-113 of the of the Working document of the 2nd milestone describe the development of the PS and the involvement of the stakeholders. The proposal included in the 2nd milestone was intentionally open to the contribution and experience of all stakeholders supporting the development of the PS.
Validate the JRC's approach using real-world data, prioritising real-world testing and validation to reduce the risk of unintended outcomes (risk-based approach) • Durability Assessment—Real data is needed to test whether the JRC's method truly reflects product longevity in actual use conditions. A proposal is to use the Digital Product Passport (DPP) to collect this real-life data for assessing product durability. Impact Evaluation – Real data is essential to assess whether the theoretical benchmarks (BC, BAT, BNAT) lead to fair and functional outcomes across different products and materials, avoiding negative effects on the market.	The need for real data is understood and clearly reported in the 3rd milestone. However, this proposal cannot be made at present because the DPP has not yet been implemented, and therefore such an option cannot be implemented in the timeline envisaged for the preparatory study, or the development of the delegated act.
Proposal for the revision of the methological approach: • Based on property loss calculation, due to: 1) the lack of data existing for validating the hypothesis in which a 20% change is acceptable or how the 50% limit applies uniformly across different parameters; 2) reevaluating all parameters post-aging is unnecessary and misaligned with industry standards; 3) a threshold should be set on post-wash performance rather than the new product, as it penalizes products	The assessment of the physical durability was updated, including real data generated by the DURHABI project.

Issue reported by the stakeholders	Answer
with better initial characteristics; 4) the primary objective of durability tests is to identify product failures, not to simulate the ageing process. • The ageing simulation does not reflect the real-life use, by not including drying and ironing in the use phase stage. • It should consider complementarity with fit, product design, comfort beyond technical property loss. • It is not supported by the available evidence that enhancing durability will reduce consumption. Research has not demonstrated a correlation between the physical durability of apparel textiles and their lifespan. It is imperative to adopt a more comprehensive and risk-based strategy that incorporates real-life scenarios and user behaviour.	
Proposal to revise the distinction and categorisation of products: fibre specific approach • As fibres have different intrinsic properties, the approach should be fibre-specific. The fibre-neutral approach favours synthetic fibres and unfavours natural ones. This can be corrected by considering other factors like comfort, functionality, biodegradability and the inclusion of perspiration and wearing tests. • Adjustments should consider comfort, biodegradability, and usage conditions, with special attention to fibres like Lyocell, or Elastane.	Section 9.2.1.2 of the Working document of the 2nd milestone addresses this topic. The authors of the PS do not understand how the stakeholders relate the suggested factors with the definition of durability reported by the ESPR. More explanations will be needed. Table 121 in section 10.9.2 of the 2nd milestone reports a comparison of the physical characteristics. Table 121 shows that there are fibres that are more robust than others. The JRC is open to understand how factors listed by the stakeholders should be implemented in the PS, considering objective approaches via standardized tests.
Proposal to revise the distinction and categorisation of products: product categories It is recommended that the product categories be modified to include the following factors: fibre composition, weight of fabric, structure of fabric, mixtures, and blends. These factors significantly impact the physical durability performance (and failure modes) of textile apparel. To avoid confusion and misclassification, the product categories must be modified by providing more detailed information and considering the use of subcategories if necessary.	The assessment of the physical durability was updated,
Proposal to revise the approach based on washing cycles as ageing hypothesis and cleaning testing recommendations: The number of washing cycles can be adjusted within a range of 3 to 15, and the process can be further enhanced by incorporating drying and ironing as part of the washing cycle, in accordance with ISO 6330 standards.	The assessment of the physical durability was updated
Comment related to Table 44. Product description from the perspective of physical durability: • General recommendations: ○ Support for a clear simplification of the proposed test list and provision of minimum durability criteria. ○ Propose cost-efficient, time-efficient, and specified testing conditions for comparability and scalability of the testing procedure. ○ Propose a compatibility system for alignment with EU Ecodesign rules of external systems. ○ Enlarge the physical durability assessment scope to the product´s design, fit and making. ▪ Key parameters should be based on the main failure modes associated with each product and not general and consider the technology of the fabric and product functions. Therefore, key elements such as fibre type, fabric construction, fabric finishing/surface treatment, its placement (lining or outer fabric), and intended function (e.g., sportswear versus non-sportswear) should be incorporated. • Tests specific concerns:	The assessment of the physical durability was updated

Issue reported by the stakeholders	Answer
○ Thresholds should be attainable for all fiber types but for some of them it should be convenient to establish lower thresholds (for instance, natural fibers like wool or regenerated cellulosic fibers like viscose will never match the intrinsic properties of synthetic fibers). Failing to account for this could unwillingly discriminate against certain fiber types. At the same time, these thresholds must be aligned with international practices. The use of recycled fibers -especially through mechanical recycling technologies from post-consumer sources- should also be carefully considered. ○ When setting minimum performance requirements, the following factors are important to include Materials composition, Mono vs. blends, Weight, , Surface treatment ○ Recommendation of different test parameters to be included or excluded, such as test for spirality, colour fastness to artificial light, snagging, functional claims such as: water repellence, water proofness, thermal resistance. ○ Special concerns for pilling, bursting, dimensional stability, abrasion resistance tests and performance per type of products and fibre composition. ○ Recommendation for consideration of functionality testing for zippers and buttons. ○ Recommendations for specific cleaning tests according to label: washing machine, dry cleaning, ironing, drying. • Methodological approach related to the calculation method is challenged, based of the behaviour of products on the market, and the practical need of parameter reevaluation after the ageing indicated in the study. • Other considerations: consider replication of test necessity for the same fabric in various colours included in different products and their implications on companies	
Clear definitions of "fast fashion" and "ultra-fast fashion" are needed. These models vary in speed, scale, and stakeholder motivations. Without consistent terminology, comparisons and evaluations become unclear. The link between business models and product durability should be clarified. While fast fashion is often criticised for low durability, such claims require evidence.	The working document of the 2nd milestone analyses all factors affecting the products in the context of the physical durability. The JRC is open for suggestions on: (1) How to define "fast fashion" and "ultra-fast fashion; (2) Real data related to the adopted physical durability framework for products manufactured by these business models; (3) Specific quantitative evidence between these business models and the physical durability of the products.
Recommendations on the reinterpretation of the study results on failure modes developed by Cooper and Claxton was recommended to consider the failures modes per type of product.	The assessment of the physical durability was updated.

4.14 Maintenance

Table 17. Main comments on maintenance and answers by the authors

Issue reported by the stakeholders	Answer
Legislation alignment:	The specific sub-section addressing European legislation was updated.

Issue reported by the stakeholders	Answer
Alignment with Textile Labelling Regulation (Regulation (EU) 1007/2011) and Consider General Product Safety Regulation (Regulation (EU) 2023/988) for clarity, efficiency, and legal consistency, as well as avoiding information overload.	
Recommendation of the types of carriers of information in hybrid format combining physical and digital means, considering basic and important information ion physical format and supplementary information in digital format.	The section was updated.
Disagreement with the proposal of the combination of text and symbols, justified by a historical evolution from text to symbols on care labels. Additionally, latest studies reveal that EU consumers understand in a very high percentage the current symbol. Recommendation on increased standardization and improvement of symbols was done.	The section was updated.
Recommendations on the type of information to be provided on the hybrid format including physical and digital carriers: • Physical: solely standardised symbols (ISO), to make it simpler and shorter, avoiding elimination by users due to comfort issues. • Digital: supplemental information- Indications on limitations imposed by solely physical or digital carriers were provided, considering that using only physical carriers limits space, increases discomfort, and risks label removal, while relying solely on digital carriers reduces accessibility, complicates enforcement, and may exclude less digitally connected users.	The section was updated.
Considerations on certain types of information proposed for inclusion in care labelling or product communication. These include: • Storage and wear instructions: Their practical value is limited, as they depend heavily on individual user behaviour, lack harmonised standards, and have no clearly demonstrated impact on durability. • Directions on detergent type and dosage: These depend on external variables such as water hardness, load size, and detergent formulation, making them unsuitable for generalised labelling. • Care based on the most delicate component: This approach ensures that all parts of the product are preserved during cleaning, especially in multi-material garments, and is aligned with existing best practices such as ISO 3758, which recommends formulating care instructions based on the least resistant component. • Mandatory text size on labels: Ensuring legibility through minimum text size is important for accessibility and consumer understanding, as reflected in existing standards such as ISO 3758. However, text sizing must be balanced with spatial and ergonomic constraints to avoid excessive label size and discomfort, which could increase the risk of label removal.	The section was updated.
Although care information is widely provided and valued by consumers, there is limited scientific evidence establishing a causal relationship between the availability or detail of such information and improved maintenance behaviour. Likewise, no studies have conclusively demonstrated a link between the price of textile products and the attention consumers pay to care instructions or maintenance practices	The section was updated. About the influence of user behaviour, lines 3118-3121 of the working document of the 2nd milestone explains that the effect of user behaviour will be addressed in Task 6 of the PS.
A clear and targeted communication strategy is necessary to enhance consumer awareness and understanding of maintenance practices, helping bridge the gap between the information provided and its effective application in real-life apparel textile care.	The relevance of a well-designed communication strategy to improve consumer awareness and encourage appropriate maintenance practices is fully acknowledged. Nevertheless, its design and implementation lie outside the scope of this preparatory study.

4.15 Repairability

Table 18. Main comments on repairability and answers by the authors

Issue reported by the stakeholders	Answer
Repair for apparel textiles cannot be standardised. Standardised spare parts do not ensure the repairability of textile apparel since, in some cases, repairability is linked to other issues (such as fibre type, manufacturing techniques or other technical characteristics of textile apparel). Additionally, this standardisation might imply colour, strength, texture, and material variations. This variation from the original product and aesthetics might imply negative social aspects.	The section was updated including the complexity of connector types and fibre construction.
Considering aesthetics in repairability, beyond mere functionality, is inherently subjective. Imposing design or manufacturing limitations based on such subjective criteria presents significant challenges, as they cannot be universally regulated. Moreover, restoring a product's original aesthetic after repair cannot be guaranteed. The acceptance or validation of the repaired product will largely depend on consumer preferences and behaviour, factors that lie beyond the control of producers.	The working document supports the idea that consumer behaviour is not objectively quantifiable, and the definition of this aspect can be subjective, therefore very challenging to define and describe.
The main parameters that support repairability for consumer electronics and appliances present a series of limitation in design principles for repairability if applied to apparel textiles. These are summarised below: • Standardisation: many stakeholders highlight that the common practice is the use of standardized parts in the production of apparel textiles. Additionally, this may represent a burden for innovation and limit creativity, while posing a risk in terms of overproduction of these parts. • Modularity: needs a clear definition when referring to an apparel textile product. Additionally, it may lead to trade-offs with comfort, physical durability, both due to seams which in contact with skin may create a discomfort sensation and represent a technically weaker part in a textile apparel product, apart from many other technical limitations (e.g. shrinkage, fuzziness, colour migration, etc.). Modularity is not connected to the disassembly and repair of the product. • Tool availability and spare parts: high potential of overproduction, resulting in unwanted economic and environmental impacts. Additionally, the following limitation towards repairability requirements are mentioned: insufficiency network of professional repair shops, machinery, knowledge, technical limitations among others, resulting from the development of the previously mentioned parameters.	All these aspects were already addressed in the working document of the 2nd milestone. The text was updated with few new insights.
Not all four key parameters apply to textile products: • Disassembly complexity: Simplifying garment disassembly is unlikely to improve sustainability, as repairs rarely require full disassembly and such changes could reduce durability, performance, and safety, especially in sportswear. Therefore, this approach is not supported. • Tool accessibility: The study presents the idea that garment repairs should rely solely on basic tools like thread, scissors, and needles, but this approach is too theoretical and not viable in practice. Consistently achieving high-quality and aesthetically pleasing repairs with such limited tools is unrealistic. Moreover, relying on basic tools does not ensure effective or durable results, thus the importance of professional repair services. • Standard fasteners: Using standardized fasteners should not restrict industry innovation. Including fastener size details in a product's Digital Product Passport (DPP) could help consumers make repairs by easily identifying the correct replacement size. Repair support resources: of importance as information basis for the consumer.	The section was updated.

4.16 Waste generation

Table 19. Main comments on waste management and answers by the authors

Issue reported by the stakeholders	Answer
Definition of pre-consumer waste in line with the End of Waste definition	The definition and the text related to pre-consumer waste has been revised to ensure better alignment with the ongoing report on End of Waste criteria for textiles products being developed by the JRC. Accordingly, now it relates to the waste generated at retailer stages as a result of discarding unsold goods. In this way, it also aligns better with the ESPR provisions regarding the destruction of unsold goods.
Definition of waste types in line with ISO 14021	The definition of textiles waste types has been revised. However, the ISO 14021 standard only differentiates between pre-consumer and post-consumer materials, with the pre-consumer material including what this report defines as post-industrial and pre-consumer waste. In the framework of the ESPR, this further disaggregation is interesting to be kept as these types of waste also present peculiarities that affect their recyclability and that have been further analysed in Section 9.2.5. Moreover, this is in line with other EU regulatory initiatives regarding the textiles sector such as the ongoing work to define the criteria for End of Waste. Harmonization between End-of-Waste criteria for textiles and the ESPR is crucial to create a consistent and viable circular economy framework.
Figures related to the amounts of waste generated	The figures of waste generated are acknowledged to be subject to high uncertainty because of the different definitions of textile waste and standards for reporting waste generation, and reporting standards to official databases (e.g. Eurostat). For instance, it should be considered that the post-industrial waste figures do not only include the fabrics that end in the cutting room floor as waste, but also discarded defective or damaged products and finished products that the manufacturers do not send to their customers due to order change or cancellation. This may explain why some stakeholders might have thought the figure was overestimated. While being aware of the uncertainties, the figures shown are those considered to be the most representative and reliable, and the sources from which they were obtained are properly cited in the text to support them.
Scientific evidence to support a direct correlation between certain business models and waste generation	Scientific literature that calculates the correlation between certain business models and waste generation has not been found, so the text does not provide data nor attempts to quantify it. However, the report describes all the causes that the literature and stakeholders identify as affecting waste generation. In addition to technical inefficiencies, certain business models also promote overconsumption and overproduction, which in turn increase the generation of waste, thus deserving being described. The JRC is open to receive quantitative and scientific evidence correlating specific business models and the generation of waste.
Blaming suppliers, manufacturers, retailers or consumers for the waste generation	The report does not intend to blame suppliers, manufacturers, retailers or consumers for the waste generation, but rather describing the different actors and how all of them contribute to it.

4.17 Recyclability & recycled content

Table 20. Main comments on recyclability & recycled content and answers by the authors

Issue reported by the stakeholders	Answer
Call to consider open-loop recycling (i.e., other than fibre-to-fibre recycling)	The section has been revised to also consider the recycling of textiles to be used other purposes than the original such as filling and non-woven material to produce insulation material, cleaning wipes or technical nonwovens for the automotive industry. However, the use for energy recovery is out of the definition, in line with the Waste Framework Directive (WFD). Moreover, the use of secondary material coming from sources other than fibre-to-fibre recycling has been also considered. In particular, the use of PET recycled from bottles has been described as it accounted for 98% of the recycled polyester in 2023 so it deserves being considered when describing the current framework. It constitutes a valuable source with lower environmental impact than virgin materials. However, attention needs to be paid when proposing and assessing potential ecodesign requirements in the subsequent sections not to

Issue reported by the stakeholders	Answer
	undermine the circular economy goals of the Packaging and Packaging Waste Regulation (PPWR) and hinder the scaling of fibre-to-fibre recycling technologies.
Call to consider both post-industrial and pre-consumer waste in the recyclability and recycled content definitions	The definitions of recyclability and recycled content have been revised to consider all types of textile waste and not to limit them to post-consumer waste in light of the current constraints for the recycling of the latter. As described in the PS, recycling facilities normally report lower Technology Readiness Levels (TRLs) for post-consumer than for other types of waste. Post-industrial and pre-consumer waste can be more easily recycled due to the lower degree of heterogeneity, fewer sorting and pre-treatment needed, a better knowledge of the fibre composition, among other reasons. Moreover, it has been reported that 25 - 45% of all fabric used in the production becomes waste. As for pre-consumer waste, while the ESPR prevents its generation with the ban of the destruction of unsold goods, micro and small enterprises are exempted from the ban, while medium enterprises have a delayed entry into application. In addition, there will be also a number of derogations. For these wastes, recycling has been shown to be the most beneficial pathway from the environmental perspective, after preparing for reuse.
Concerns about the ambition of the requirements defined and their verification	At the stage of the 2nd milestone of the report, ecodesign requirements have not been proposed yet. Section 9.2.5 aims to refine the definitions of recyclability and recycled content to adjust them to textile apparel products and describe the situation regarding the technology and ecosystem of these product aspects. Thus, the five characteristics that define a recyclable product are not an ecodesign requirement so do not need verification. The identification of the base cases, best available technologies and best not yet available technologies will help the study team to define the base cases and design options to be assessed later in Tasks 5 and 6. All the comments received concerning recommendations on potential ecodesign requirements have been acknowledged and will be considered when defining the design options after the assessment of the base cases and the identification of the hotspots. The verification of the ecodesign requirements will be defined then. As for the Chain of Custody models, conflicting recommendations have been proposed with most of the stakeholders suggesting a mass balance approach, while several are in favour or controlled blending.
Concerns about the technological neutrality of the requirements regarding the recyclability	The recycling techniques presented in the best available technologies correspond to those that have been reported to be operational at scale. This includes techniques for all kind of fibres as mechanical recycling can handle most of them. In any case, this description should not be mistaken for an ecodesign requirement. The ecodesign requirements will be defined after the Impact assessment that follows this preparatory study, which will in the coming milestone propose and assess design options to address the environmental impact of the base cases. The ecodesign requirements will be technologically neutral.
Concern about disregarding of the fibre composition in defining fabric categories	We acknowledge that the intrinsic characteristics of the fibre that constitutes the material are determinant of both its properties and impact. It will be taken into consideration when analysing the environmental and economic aspects of the base cases, by using a Bill of Materials that are representative of the average in the EU market for each of the product categories. Moreover, the specificities of the fibres will be taken into account when proposing and assessing potential ecodesign requirements. However, the generic approach followed in section 9.2.5 is sufficient for its purpose as it succeeds in describing the technologies and the ecosystem regarding the recyclability and the recycled content. A categorization of the products in scope based on the types of fibres and the specific function to be provided by the item would result in a disproportionate number of categories, which would not meet the aims of the PS.
Revision of the description of the ecosystem regarding recyclability and recycled content	The description of the ecosystem regarding recyclability and recycled content has been revised and improved to take into consideration the valuable input provided by stakeholders. Particularly, the information regarding the sorting and recycling techniques has been updated. Regarding the latter, more specifically: 1. It has been clarified that the TLR figures shown represent the Global picture, unless otherwise specified. 2. The table has been complemented with the status of the recycling facilities in Europe based on a recently published report. 3. The stakeholders' input has served to revise the TRLs and update them. 4. Please, note that PES stands for all polyester fibres and not for Polyethersulfone. PET is the most important polyester used in fibre production. 5. We acknowledge that the Technology Readiness Level assessment does not account for economic feasibility nor for the ability to cope with the volumes of EU textile waste without putting pressure on energy and resource use. The chapter aims to describe

Issue reported by the stakeholders	Answer
	which is the status of the recycling techniques. Their impacts will be assessed in the modelling of the design options in the following milestones.
Trade-offs between recycled content and durability	The trade-offs between recycled content and durability are acknowledged and will be considered when modelling the design options for their assessment in the following steps of the study.
Information regarding substances that hinder recyclability	The comments providing information regarding substances that hinder recyclability have been acknowledged and will be considered in the subsequent milestones of the report.

4.18 Environmental impacts

Table 21. Main comments on environmental impacts and answers by the authors

Issue reported by the stakeholders	Answer
Concerns are expressed about the feasibility of submitting relevant data within a limited consultation period.	Although we acknowledge that submission of feedback to complex consultations, such as this one, can be challenging, we would like to note the JRC works under a tight timeframe, imposed by the by the Ecodesign working programme. Nonetheless the consultation period was extended to over three months for this particular document (which was already provided as a draft on 14 November 2022). There will be further opportunities to provide comments. Consider sending data in the next stakeholder consultation, as a revision to the inventory used and published.
Stakeholders highlight their previous work on the PEFCR A&F framework, noting that gathering product-level data (as requested by the JRC) is more complex than the facility-level data typically available. A call is made for a focus on facility-level data rather than geographic assumptions about environmental impact, with an emphasis on facilities implementing Best Available Techniques (BAT) and adhering to European standards. The recommendation is made to focus on facility-level data, especially for non-EU countries, to ensure fair evaluation of facilities meeting European standards and provide stronger incentives for improvement.	JRC is collecting product-level data because the ESPR framework has the aim to set ecodesign requirements at product level. Moreover, product-level data are necessary to build the life cycle inventory to assess the Environmental impact of the base cases for each representative product.
The binary division of production into EU and major manufacturing countries (China, India, Bangladesh) is criticized. There is scepticism about the assumed higher environmental impact of non-EU facilities, emphasizing the factors that influence impacts are technological and practice-based rather than location-based.	The JRC is referring to the average performances of the textile industry in EU and non-EU and not to specific facilities. We are open to receiving data on plants from within and outside the EU. Should you have any relevant data, please submit it using the designated data collection file. Excel spreadsheet to be used to contribute to the environmental and economic model available at this link. Supporting document for the environmental and economic model is available at this link.
Concern is expressed about the lack of focus on raw material and cultivation processes in environmental assessments. This stage has significant environmental impacts, and future analyses should capture these earlier life-cycle stages too.	Section 9.2.6 is only reporting the potential information that will be addressed within the product aspect “Environmental impacts” listed in Article 5 of the ESPR. In the next milestone a comprehensive environmental impact assessment will be done considering all the life cycle stages.
Criticism on missing processes and simplification of processes: The simplification of production processes, such as comparing ring spinning and carding without acknowledging their different market targets, is criticized for glossing over industry nuances. Air-jet spinning is missing in the comparison of production techniques, and "weft knitting" is	Section 9.2.6 is only reporting the potential information that will be addressed within the product aspect “Environmental impacts” listed in Article 5 of the ESPR and it’s not deemed to report a comprehensive analyse about environmental

Issue reported by the stakeholders	Answer
suggested as a better term than "straight knitting." Gaps in coverage of dyeing technologies are identified, including benefits of pre-treatment chemicals, dope/solution dyeing, and water-free dyeing technologies, which affect energy and water use differently.	impact assessment. More information about production processes is reported in section 3.3.1.
According to the European Sustainability Reporting Standards (ESRS), "water consumption" refers to the portion of water that is not returned to its source, while "water withdrawal" refers to the total volume of water removed. The distinction is important as conflating the two may overstate a process's environmental impact by implying water is permanently removed. The term "withdrawal" should be used for accuracy, capturing opportunities for water reuse, treatment, or return to the source.	The term water consumption was changed with water use.
Critique of the conclusion that "recycling is a preferred pathway" without considering limitations and the current state of recycling technologies, referencing a report on the climate impact of textile recycling.	In terms of waste management techniques, a number of options are available, from landfilling and incineration, to preparing for reuse and recycling. In this case, as reported in Solis et al. (2024), preparing for reuse is the most beneficial management pathway from both an environmental and a socio-economic perspective. Overall, recycling is the second-most preferred pathway for most environmental impact categories, while technology and processing costs will have to decrease to be economically competitive against incineration. Moreover Article 4 of the Waste Framework Directive defines the waste hierarchy. 1. The following waste hierarchy shall apply as a priority order in waste prevention and management legislation and policy: (a) prevention; (b) preparing for re-use; (c) recycling; (d) other recovery, e.g. energy recovery; and (e) disposal. 2. When applying the waste hierarchy referred to in paragraph 1, Member States shall take measures to encourage the options that deliver the best overall environmental outcome. This may require specific waste streams departing from the hierarchy where this is justified by life-cycle thinking on the overall impacts of the generation and management of such waste.
Criticism highlighting the fact that the diversity of business models in the marketplace has been overlooked, such as those from street markets, supermarkets, and independent designers, suggesting a need to recognize the varied and complex market behaviours. Reducing business structures to just two categories, consumer-led and brand-led, is seen as overly simplistic and dismissive of the market's intricacies, leading to potentially unfounded biases in interpreting market challenges. The document's implied cause-effect relationships are questioned due to a lack of evidence, particularly concerning business models that adapt to rapid trends leading to obsolescence and early disposal.	The JRC is open to additional data and evidence regarding business models in Section 5.5 Market structure and business models.
The link between shorter production times and increased manufacturing errors, and waste due to product discard, is challenged, demanding specific sources or evidence supporting this claim. The relationship between short production times and manufacturing errors needs further clarification and supporting evidence or sources. Longer lead times are influenced by various processes, such as delivery, not just production, indicating that lead times do not directly correlate with production durations.	The statement was adjusted changing "increase" to "could increase" which shifts from a certain scenario to a potential, possible scenario. Moreover, the following reference was added: https://www.sciencedirect.com/science/article/pii/S0924013615301801
Geographic location should not be automatically linked to higher environmental impacts of textile production. The impact should be understood through specific data rather than broad generalizations. Emphasis that	JRC is aware of the fact that, both, EU and non-EU regions can engage in environmentally friendly practices but in the section Legislative framework and

Issue reported by the stakeholders	Answer
environmental impacts are shaped more by technologies, practices, and resource inputs rather than geographic location, though supply chain location can still affect impacts. Criticism of the assumption that producing textiles outside the EU inherently increases environmental impact, suggesting the need for nuanced assessments rather than broad generalizations. Recognition that both EU and non-EU regions can engage in environmentally friendly practices, and the impact of textiles should be evaluated on a case-by-case basis. Report analysis should capture the nuances in the value chain, recognizing that production in third countries can sometimes be environmentally friendly, and EU production can also face inefficiencies.	industrial best practices reference is made to general practices in EU and non-EU regions. The statement was adjusted changing "increase" to "could increase" which shifts from a certain scenario to a potential, possible scenario considering the nuances of the manufacturing stage. Additionally, section 5.7 of the working document of the 2nd milestone addresses the different legislative ambitions in several manufacturing countries. The JRC is open to additional data and evidence on this topic.
Concerns that stricter EU regulations may lead to outsourcing, potentially increasing the environmental footprint if production is relocated to countries with looser regulations.	Acknowledged. The requirements defined under ESPR delegated acts will apply to any product placed in EU, regardless of its origin . The entire preparatory study addresses the global value chain
Clarification needed that outsourcing is often driven by raw material availability rather than merely cost or regulatory differences.	While raw material availability is a factor in outsourcing decisions, cost savings and regulatory differences are often more significant drivers. Companies may choose to outsource to reduce labour costs, access specialized expertise, or comply with less stringent regulations.
Scepticism regarding the long-term environmental benefits of rental models for textiles, arguing that such models do not inherently extend product lifespan or reduce impact. Suggests focusing on broader industry practices with higher potential for sustainability improvements rather than niche models like rentals. Concerns that rental-based business models may require large and frequently updated inventories, which could undermine environmental benefits.	Rental models for textiles often apply to products that are not used very frequently, such as gala and wedding dresses. Sometimes, consumers only use these dresses once or twice. On the other hand, rental models make these dresses used many times, increasing the number of uses and decreasing the environmental impact per use.
The causal link between consumer choices and environmental impact is criticized for being broadly stated without providing specific evidence or data to support the claim.	Consumers significantly influence the environmental impact of apparel through their purchasing choices, usage habits, and disposal methods. For example, the frequency of washing, drying, and ironing clothes, as well as how they are discarded, all contribute to the overall environmental footprint of the apparel industry. Since this link between consumer choices and environmental impact is a very known concept there is no need to provide specific evidence or data to support the claim. Furthermore, the next PS milestone will report the life cycle assessment results, showing the link between user behaviour (e.g. how often clothes are washed, dried and ironed) and environmental impact.
Highlighted is the concern about over-emphasizing consumer impacts, pointing out that the responsibility should not solely rest on consumers but also on producers, distributors, and other parts of the supply chain. The need for the textile sector to assume a fair share of responsibility for environmental impacts instead of shifting blame to consumers or societal pressures. The report should avoid using cultural and personal choice arguments to abdicate industry responsibility, calling for a balanced approach considering all stakeholders' roles in reducing environmental impacts.	JRC emphasizes the importance of shared responsibility in pursuing a less impactful textile sector. All relevant ecodesign aspects are assessed inn their broader ecosystem (see lines 2788-2793 of the working document of the 2nd milestone).
Dissatisfaction with the BC (Base Case), BAT (Best Available Technology), and BNAT (Best Not Available Technology) classifications, arguing they lack scientific grounding and are based on caricatured characteristics. Criticism of the BC scenario for oversimplifying corporate behaviours in regions like China, India, and Bangladesh, which may penalize proactive companies adopting voluntary measures to meet local or international standards.	The PS focuses on regional average environmental performances aims to reflect the overall market landscape rather than individual plants. This approach helps capture a broad picture of the “average” products placed on the EU market. We welcome any data that can improve our Life Cyle inventory coming from proactive companies which may exceed these averages. We're committed to ensuring our analysis is as comprehensive and fair as possible.

4.19 Presence of substances & substances of concern

Table 22. Main comments on substances & substances of concern and answers by the authors

Issue reported by the stakeholders	Answer
The definition of SoC is too broad, it is unrealistic to think that all SoCs can be tracked. Only certain SoCs such as SVHCs defined under REACH, restricted substances in Annex XVII of REACH and POPs should be in scope. SoCs to be tracked should be only textile-relevant substances. SoC in ESPR should refer only substances affecting circularity and recycling.	The definition of which substances constitute "substances of concern" under ESPR is provided in Article 2(27) of the framework legislation and therefore cannot be reduced in its scope via a delegated act. The Commission will, in the Preparatory Study and in the subsequent impact assessment consider the proportionality of general or specific thresholds, exceptions or delayed dates for the entry into application of information requirements.
In alignment with what has been proposed by AFIRM Group, there should be a gradual, stepwise implementation of information requirements on SoCs, prioritising SVHCs and POPs (18 months after entry into force of delegated act), followed later by: CMRs Cat 1 and 2 (after 36 months); skin and respiratory sensitisers Cat 1, substances hazardous to aquatic environment and to the ozone layer and STOT substances (after 54 months): and finally endocrine disrupting substances, persistent substances, PBTs, PMTs, vPvBs and vPvMs (after 72 months).	The Commission will, in the Preparatory Study and in the subsequent impact assessment consider the proportionality of applying general or specific thresholds, exceptions or delayed dates for the entry into application of information requirements for certain families or classes of substances.
Legacy chemicals in post-consumer textiles may constitute a barrier to recycling. It should be ensured that chemical regulation does not create unintended barriers to recycling. There is a contradiction with the situation of second-hand garments, which are exempted.	We acknowledge that some legacy chemicals, in particular those currently restricted due to risks posed to human health and the environment (e.g. under REACH or the POPs Regulation), can constitute a barrier to recycling, as the recycled material exceeding legal limits cannot be placed on the market. Pursuant to Article 6(3) of ESPR, such restrictions, and the assessment of all trade-offs involved, will generally be addressed under the corresponding chemicals legislation, and not under ESPR. As in the case of the POPs regulation, and some restrictions listed in Annex XVII of REACH, limitations do not apply to second-hand products that were already on the market before the entry into force of the provisions in the relevant acts (this would also be the case in ESPR product-specific delegated acts).
No single chemical is a barrier to mechanical recycling.	We take note of this comment, which we interpret as meaning that it refers to no chemical, beyond those already restricted (e.g. under REACH, POPs) due to chemical safety reasons.
Market surveillance of imported products is essential to ensure compliance. Especially Asian platforms.	The importance of market surveillance and customs controls is acknowledged. This is relevant, not only in the case of ESPR, but for other product legislation (e.g. chemicals, toys, etc).
Information requirements expected for textile apparel do not exist for mixtures, so how does the EU expect information flow to happen in supply chains? Standardized information on SoCs and its thresholds should be aligned and derived from existing Safety Data Sheets (according to Annex II of REACH) for chemical safety-related information requirements. The threshold for tracking of those substances should meet the standard obligations outlined in the current Safety Data Sheet (SDS).	We acknowledge that the primary source of information on chemicals used upstream in the supply chain for apparel textile is in the SDSs of mixtures used in dye-shops, print-shops, etc, which may be located in the EU, or very often in third countries. In developing information requirements for substances, and in particular general thresholds associated to such requirements, due consideration will be given to the current rules, both under REACH and GHS compliant SDSs, that govern the information that has to be provided about hazardous substances in mixtures.
The ESPR must implement an ambitious, hazard-based approach to ban or demand the substitution of substances of concern, including microplastics, in textile products and in the entire textile value chain. To do so, it should set strict rules regarding any substances of concern present in the final product and in the textile waste, including microplastics, as well as used in the different processing stages. It must also include any chemicals used during the fibre production phase, including but not limited to the extraction of crude oil, the formation of synthetic fibres, and the production and use of pesticides and fertilizers, with the clear goal to eliminate any risks	As indicated in Article 6(3) of ESPR, "performance requirements based on the product parameter referred to in Annex I, point (f), shall not restrict, for reasons relating primarily to chemical safety, the presence of substances in products". This means that generally restrictions or bans on chemicals for reasons of their toxicity-mediated impacts on human health or the environment would not be addressed via setting performance requirements under ESPR but, as appropriate under the relevant chemical product legislation (REACH, POPs Regulation). In other cases, where a clear link can be made between the use of a given substance and an adverse impact on other

Issue reported by the stakeholders	Answer
associated with hazards of the chemicals to human health, to biodiversity, the environment and climate	product parameters (e.g. water use, energy use, durability), and where this plays a more important role than chemical safety aspects associated to the substance, performance requirements could be considered under ESPR.
Existing Voluntary Sustainability Standards (VSS) following the ISEAL Code are a proven and effective instrument for creating transparency in the supply chain, providing clear guidance by defining positive lists, specifying exclusion and restriction of substances of concern (e.g., the strict prohibition of PFAS by GOTS), and monitoring compliance by ensuring regular independent verification. We suggest to verify whether the voluntary industry approaches, which include requirements on chemical management could support the development of information requirements. It is necessary to develop assessment and tracking tools under the EU waste legislation.	We acknowledge the role of voluntary sustainability standards and of supply-chain transparency tools and platforms in supporting the flow and availability of information about SoCs in textile supply chains. To the extent information on the features, availability and take up of these systems is available to the JRC, including as regards third countries, it will be considered towards this Preparatory Study.
The definition of substances of concern (SoCs) refers in part to the harmonised classification under specific hazard classes defined in the CLP Regulation. Although the CLP implements the Global Harmonised System, it is important to note that the GHS is not adopted in all countries or may be implemented in a different way, resulting in a different hazard classification of substances. This is the case in China, for example. As the ESPR also intends to address SoCs in the production process, it would be beneficial to seek cooperation with the producing countries and the voluntary industry approaches that already address a wide spectrum of chemicals such as the ZDHC, and ecolables others than the EU state labels, e.g. GOTS or Bluesign. We recommend considering the impact of the ESPR in the manufacturing countries and whether accompanying measures are planned in the supply chain, e.g. capacity building and the like, to ensure that the requirements are properly implemented.	We agree with your analysis and recognize the need and value of information campaigns and capacity building measures in producing countries. Requirements set under ESPR will foster the development of supply chain transparency systems and better information flows throughout supply chains, both in the EU and internationally.
Tracking and finally disclosing SoCs should be applied only to substances that remain unmodified in the final article. Substances used in manufacturing processes that are not remaining in the final product should be excluded from reporting on potential SoC to focus on the most relevant.	Although ESPR follows a life-cycle approach, the wording of Article 7(5) as regards information requirements on SoCs in products emphasizes that the priority lies on SoCs contained in the product.
We urge for exemptions specifically for Confidential Business Information (CBI) reasons. This request is aligned with the principles outlined in the ESPR, which emphasizes the importance of balancing transparency with the protection of sensitive business information. Companies and associations will be reluctant to disclose sensitive data on the chemicals used. The JRC should take measures here to strengthen the confidence of companies that this data will be kept secret.	Article 7(5) of ESPR provides a general obligation for companies to disclose information about substances of concern contained in products, via the DPP or equivalent means, subject to thresholds, exemptions and potentially, delayed deadlines for entry into application of this disclosure obligation. Subject to Article 7(6) of ESPR the Commission may define exemptions from this disclosure obligation in the delegated act, but these must be duly justified and can only be based on claims and justifications made by the companies concerned. Other than in the context of information exchanges to discuss with operators the merits of any particular exemption request for a given substance, the JRC will not handle or store business sensitive information on substances in products and will certainly not disclose it. The disclosure obligation relies on operators placing products, in the scope of an applicable ESPR delegated act, in the EU market. More generally, it should be noted that the fact that certain confidential or privileged information may be required of economic operators to be uploaded onto the DPP and/or provided to authorities through technical documentation (in compliance with Article 5(1)(d) ESPR) does not mean such information will be made public – please refer to recital 32 ESPR where it is clearly stated that information required is meant to "*enable competent [...] authorities to perform their duties, without endangering the protection of confidential business information*"

Issue reported by the stakeholders	Answer
We would like to highlight the risk that substances will be defined as SoC while they are an important contributor to durability, longevity or functionality of textile apparels	In the context of substances addressed under ESPR, meeting the criteria to be defined as Substances of Concern, be it due to their intrinsic hazards, or as a consequence of their negative impacts on reuse and recycling, has no direct implication on their use, or the possibility of placing the product on the EU market. It only triggers an obligation, subject to thresholds and exemptions, to disclose information regarding the presence of the substance in the product. For some substances, for which a performance requirement could be proposed for reasons not primarily relating to chemical safety (i.e. due to other sustainability reasons), an analysis of alternatives, and of the trade-offs involved, would be carried out prior to any proposal being made about a potential restriction / limitation in the use of the substance in the product.
The definition of SoCs having a negative effect on reuse and recycling should be based on the technical aspects of recycling and be flexible enough to considers the different product groups, designs and recycling technologies. They should take into account that technologies will evolve, thereby forcing continuous reevaluation of the state of the art. Any decisions take should not have a negative effect on innovation.	As indicated in Article 5(14), the Commission must determine, where relevant, for each product group, the substances of concern which have a negative effect on reuse or recycling. This can only be done to the extent the information available on recycling technologies currently in place will allow. It is acknowledged the ability of recycling technologies to deal with certain substances may evolve and may have to be reassessed. As indicated in Article 8 (i), delegated acts must indicate the date by when they have to be reviewed, taking into account, among other elements, technical progress. Such reviews would be the opportunity to update the assessment of substances of concern that have been previously identified as having a negative effect on reuse and recycling.
Microplastics should be added to sections where SoCs are discussed	Nanoplastic and microplastic release is listed in Annex I of ESPR as a product parameter to be considered, as appropriate, as a basis for improving product aspects. Microplastic particles as such are generally not substances, but mixtures (containing polymer, additives, etc). Consequently, microplastics are addressed separately in this preparatory study and not as a "substance of concern".
The presence of substances of concern (SoC) would determine the extent to which a product is recyclable and would be linked to ecomodulation. The easier the product is to recycle, the lower the ecomodulation fees would be, as recyclers need to handle existing chemistries that negatively affect recycling.	The ESPR legal text does not envisage the setting or definition of extended producer responsibility systems, or of their fees, including in terms of ecomodulation, for the products addressed under its delegated acts. Nonetheless, it could be envisaged that performance criteria defined under ESPR, or information available via the DPP, resulting from ESPR information requirements, may provide the basis for defining ecomodulated EPR fees for products under the relevant waste legislation, be it at EU or national level.
A robust evidence base on the usage of chemicals must not include more than tier 1 manufacturers chemical inventory lists. Important to note that these lists are facility specific, not product specific. Product specific lists for more than tier 1 is far from being available	The primary objective of ESPR in terms of chemical substances is to increase transparency about the substances, especially substances of concern, present in products placed on the EU market. This necessarily leads to enhanced due diligence by companies and requires greater transparency through the whole supply chain. It seems unlikely that the necessary information can be obtained by addressing only tier 1 suppliers. We are confident that the numerous existing and emerging supply chain transparency tools and platforms will contribute to this effort.
We support the separation of textile chemicals into effect chemicals (functional chemicals) and process auxiliaries. We suggest focusing on the effect chemicals in a first step within a stepwise approach to address traceability because they are intended to remain in the product to fulfil a function there. This proposal was supported by stakeholders in the research project of the German Environment Agency. We agree that the setting of information requirements is the only feasible approach regarding the presence of SoC. However, the results of the research project of the German Environment Agency rather recommend a stepwise introduction covering as a first step the information	Although ESPR follows a life-cycle approach, the wording of Article 7(5) as regards information requirements on SoCs in products emphasizes that the priority lies on SoCs contained in the product, so this recommendation can be understood to be compatible with the ESPR legal text. The Commission will, in the Preparatory Study and in the subsequent impact assessment consider the proportionality of applying general or specific thresholds, exceptions or delayed dates for the entry into application of information requirements for certain families or classes of substances.

Issue reported by the stakeholders	Answer
requirement of the effect (functional) chemicals that are used to influence the properties of the final product. Furthermore, we recommend introducing a communication requirement for SVHCs according to REACH in the DPP and make this information publicly available to consumers	
We believe that it is essential to follow a risk-based approach to evaluate the presence of Substances of Concern (SoCs) in textile products, especially for reuse and recycling. It is essential that the limitations placed on SoCs are implemented starting from a risk assessment that takes into account the necessary adaptation times. In this way, the risk can be managed, and the use of recycled material allowed safely. A regulation that does not consider this difference, if strictly applied, could jeopardize sectors like mechanical textile recycling, especially for post-consumer materials.	As indicated in the Preparatory study, information on SoCs in textile apparel can be obtained via two, complementary approaches: supply chain transparency information and chemical testing. Due to obvious economic and practical constraints, testing is only feasible based on a rational sampling strategy and for a targeted number of chemicals. To do this, an approach based on an assessment of the likelihood that relevant target substances may be present in the product could be used. This is our understanding of what is meant by a "risk-based approach", in this context. If to the contrary, it is being advocated that limitations on hazardous substances of concern in products should be carried out on a risk-based basis (rather than only based on intrinsic hazards), this is something into which ESPR would generally not have a role, given performance requirements on substances due to primarily their chemical risks, would not be addressed by ESPR delegated acts, but rather under the relevant specific chemicals legislation (e.g. REACH, POPs). Under REACH, both risk-based and hazard-based restrictions are possible (see REACH Article 68.1 and 68.2, respectively).
While safeguarding health and the environment remains paramount, failing to differentiate SoCs limits between virgin and recycled material—without considering the overall environmental impacts—could, in certain cases, hinder material recovery. This may leave energy recovery as the only viable option, provided the calorific value allows it. This could in fact leave landfill or energy recovery (if the calorific value of the waste allows it) as the only viable options.	Limits on SoCs as a consequence primarily of concerns about their chemical safety are not to be addressed under ESPR, but rather under chemical legislation (e.g. under REACH, POPs Regulation). To that regard it is relevant to recall the following statement in the Communication on the Chemicals Strategy for Sustainability (COM(2020)667)): "*As a principle, the same limit value for hazardous substances should apply for virgin and recycled material. However, there may be exceptional circumstances where a derogation to this principle may be necessary. This would be under the condition that the use of the recycled material is limited to clearly defined applications where there is no negative impact on consumer health and the environment, and where the use of recycled material compared to virgin material is justified on the basis of a case by case analysis.*".

4.20 Mutual influence & categorization

Table 23. Main comments on mutual influence & categorization and answers by the authors

Issue reported by the stakeholders	Answer
Disagreement on the sentence reported at line 4131: "Waste generation is strictly connected to recyclability and recycled content;" Waste generation is 'strictly related to' volumes of waste. However, according to the waste hierarchy, waste prevention should be prioritised. JRC is encouraged to implement waste prevention and not only waste treatments in the discussion.	Sections 9.2.4 and 9.2.5 of the working document report the connections among these product aspects. The JRC is open to receive suggestions on how to address waste prevention in the context of the ESPR and more precisely in the framework of the preparatory study. Section Sections 9.2.4 already analyses features of post-industrial, pre-consumer and post-consumer waste.

Issue reported by the stakeholders	Answer
The proposed categories are not representative of the sector and are not acceptable until they include a division based on composition, followed by a subdivision based on fabric weight and construction. We reiterate that we fail to understand how this observation is acknowledged in the case of denim but not for other categories.	The text was updated as correlated sections of the working document. The PS cannot include a subdivision of the scope leading to thousands of categories driven by all the parameters suggested by the stakeholder.
The product categories should distinguish the fibre composition between natural and synthetic.	The analysis of current products on the market shows that blends are used in about half of the products on the textile apparel consumed in EU. From the perspective of the durability, section 9.2.1.2 addresses the complexity of the topic.

4.21 Other comments received

The authors understand that these comments were submitted to the wrong recipient. Most probably, the submitter wanted to comment the ongoing study on the development of the End-of-Waste criteria.

List of tables

Table 1. Development of the preparatory study 3
Table 2. Stakeholders providing contributions 6
Table 3. Number of contributions submitted and availability for publication 6
Table 4. General issues and answers by the authors 9
Table 5. Main comments on the introduction and answers by the authors 11
Table 6. Main comments on definitions and answers by the authors 12
Table 7. Main comments on scope and answers by the authors 12
Table 8. Main comments on legislation and standards and answers by the authors 13
Table 9. Main comments on market analysis and answers by the authors 14
Table 10. Main comments on user behaviour and answers by the authors 14
Table 11. Main comments on current EUEL criteria and answers by the authors 15
Table 12. Main comments on public procurement & EU GPP and answers by the authors 15
Table 13. Main comments on the section on technology in general and answers by the authors 16
Table 14. Main comments on relevant product aspects and answers by the authors 16
Table 15. Main comments on product aspects in general and answers by the authors 19
Table 16. Main comments on physical durability and answers by the authors 20
Table 17. Main comments on maintenance and answers by the authors 22
Table 18. Main comments on repairability and answers by the authors 24
Table 19. Main comments on waste management and answers by the authors 25
Table 20. Main comments on recyclability & recycled content and answers by the authors 25
Table 21. Main comments on environmental impacts and answers by the authors 27
Table 22. Main comments on substances & substances of concern and answers by the authors 30
Table 23. Main comments on mutual influence & categorization and answers by the authors 33
Table 24. Comments on the working document in general 38
Table 25. Comments on the introduction 51
Table 26. Comments on definitions 65
Table 27. Comments on scope 68
Table 28. Comments on legislation & standards 98
Table 29. Comments on market analysis 105
Table 30. Comments on user behaviour 110
Table 31. Comments on current EUEL criteria 119
Table 32. Comments on public procurement & EU GPP 124
Table 33. Comments on section on technologies in general 125
Table 34. Comments on relevant product aspects 130
Table 35. Comments on product aspects in general 165
Table 36. Comments on physical durability 169

Table 37. Comments on maintenance 360
Table 38. Comments on repairability 368
Table 39. Comments on waste generation 381
Table 40. Comments on recyclability & recycled content 398
Table 41. Comments on environmental impacts 503
Table 42. Comments on presence of substances & substances of concern 525
Table 43. Comments on mutual influence & categorization 543
Table 44. Other comments received 544

Annexes

Annex 1. Comments on the working document in general

Table 24. Comments on the working document in general

ID	Section & line	Comment
1	Overall; NA	The Preparatory study on textiles for product policy instruments provides an indepth review of all relevant topics in relation to the production and assessment of textiles. The work is appreciated, however, it remains very unclear to the reader, how feedback will help shaping the future task of the study. While the procedure is well written and mostly clear, i) an actual "proposals für ecodesign requirements" would have been easier to comment. We, as an institution that builds-upon scientific standards, interpretet the whole document as a suggestion and exploring exercise in order to define the "Representative Product". In exchanges with interest groups, we found, that they interpret the study already as concrete suggestions for the description of ESPR requirements that strictly will have to be followed. Nevertheless, we found it complex and confusing, because in the end, the consequnces for the delegated act remainded opaque!
2	General comment; NA	We wish to formally express our concerns regarding the current direction of the ongoing preparatory study on textile products. The report does not accurately reflect the realities of the sector and, in several instances, lacks a robust scientific foundation. It fails to acknowledge the complexity of global value chains and does not sufficiently recognize the industry's sustainability initiatives, particularly in relation to supply chain manufacturing outside Europe.
3	General comment; NA	Furthermore, the report diverges significantly from existing industry practices, including key aspects such as durability. It does not adequately consider critical factors necessary for scaling the textile recycling industry, such as the inclusion of post-industrial waste, nor does it account for trade-offs between different product characteristics. Several arguments and conclusions appear to be based on outdated assumptions that are not supported by scientific or commercial evidence.
4	General comment; NA	We urge JRC to strengthen the connection between the analysis and its conclusions, as many conclusions do not fully reflect the underlying assessments. Additionally, we recommend using more robust and diversified references to ensure that the study is grounded in evidence-based scientific research. If these issues are not addressed, we are concerned that the study may fail to provide a solid foundation for future Ecodesign requirements.
5	General comment; NA	It is essential to incorporate industry expertise and draw on established best practices throughout the development of this important initiative. While the textile industry has historically been unregulated, the report appears to assume that the sector has taken minimal action on sustainability. Except for AIRFM/ZDHC, the study does not sufficiently acknowledge or incorporate other voluntary industry-led initiatives, such as the standards set by Textile Exchange. We strongly encourage JRC to engage with relevant textile organizations and experts to obtain additional and comprehensive data.
6	General comment; NA	The report lacks focus on the use of existing and the development of new fibres with a lower environmental impact, including, but not exclusively, new fibre types/compositions based on pre-consumer and post-consumer waste, as well as low-impact materials such as organic cotton. Innovative materials demonstrating low environmental impact should also be included, with an emphasis on promoting research into new materials. Textile Exchange is currently working on a comprehensive list of low-impact materials to guide sustainable practices in the industry. The textile industry is in significant need of material innovation to transition to a circular economy, and it is crucial that the new Ecodesign requirements do not limit these opportunities or lock the industry into existing systems.
7	General comment; NA	The limited number and diversity of references cited in the report further highlight the lack of scientific studies available to substantiate the development of ecodesign criteria. We strongly urge the JRC to engage more extensively with industry stakeholders, particularly in light of the recent decisions to last-minute postpone the implementation of the EU Deforestation Regulation (EUDR) and the new Omnibus proposal, changing

ID	Section & line	Comment
		the scope and withdrawing requirements in applied legislation (Corporate Sustainability Reporting Directive (CSRD)). These developments underscore the importance of ensuring that legislation is grounded in practical realities.
8	General comment; NA	Additionally, we question the suitability of the Methodology for Eco-design of Energy-related Products (MEErP) in the context of textile products. We request clarification from JRC on the relationship between future ecodesign requirements and the concepts of Base Case (BC), Best Available Technologies (BAT), and Best Not Available Technologies (BNAT), as well as the methodology used for selecting the guiding questions that underpin the identification and classification of relevant product aspects.
9	General comment; NA	We continue to ask the JRC to ensure legislative coherence by aligning with the Waste Framework Directive (WFD), The Textile Labelling Regulation (TLR), and the Ban on Destruction of Unsold Goods (under the Eco-Design for Sustainable Products Regulation (ESPR)).
10	N/A; N/A	We have taken note of increasing discussions around the implementation of the European Green Deal legislation and increased calls for delays in application. In this context we would like to reconfirm our support for the eco-design process and call for a robust textile eco-design delegated act that will not be open to potential future calls for delays. In this context we would like to recommend for its implementation utilizing a phased in approach for application, step by step increasing the requirements from an information content perspective as well as technical capability requirements, rather than one date where operators have to comply with everything from one day to the other. This avoids implementation challenges, increased costs as well as allowing years of transition time without concerted supply chain action.
11	General; n/a	In general, we find there to be many unsubstantiated claims and conclusions in the task 4 analysis. We realise this might be due to the lack of data available from the textile industry, but we find it troublesome that legislation will be based on a preparatory study that is not sufficiently science based. We suggest that the JRC could investigate the possibility of having information requirements in the first delegated act for textiles to help collect the missing data.
12	General; n/a	We find there to be many assumptions on consumer behavior and with the test measures suggested in the technology chapter we fear we will end up with durable textiles made from synthetic materials that consumers will still discard at a problematically high pace
13	General; n/a	The aspect of fabric choice and looking at emerging materials is relevant for the scope of this PS. Especially considering the EPR, choosing materials that minimizes pollution in production and are more durable and easier to recycle back to new textile products should be the economically sound decision as well. Are there new material types of natural origin that this PS could touch upon, just as recycling technologies and their respective TRL are touched upon in table 12?
14	General; n/a	We would have liked to see the problems around microplastic pollution addressed in this milestone. We look forward to it being addressed thoroughly in task 5.
15	General; n/a	In general, […] supports measures to push the uptake of fiber to fiber recycled content as there is a big waste problem, which needs to be addressed and an uptake of fiber to fiber recycled content could help push the market and the development of technologies. However, there is a lack of scientific data to prove the environmental benefits of using fiber-to-fiber-recycled content with the currently available technology, as the environmental impact is technology dependent.
16	Full report; General Comment	We believe the ESPR in theory is a powerful tool to change industry practises and a realise genuine shift towards more sustainable products placed on the EU market. However, that requires the preparatory work to be fully based on scientific methods, complete sources and recent data. We are therefore deeply concerned about the report's lack of scientific evidence, recent data, and accurate representation of the sector's current realities. The arguments and conclusions often rely on outdated assumptions or simplistic considerations, failing to adequately address the complexity of our global value chains or acknowledge our sustainability initiatives.

ID	Section & line	Comment
		We call to improve the referencing of peer-reviewed scientific evidence. There are numerous shortcomings in Task 4 due to a lack of scientific evidence supporting the preliminary study. The PS should acknowledge and consider the work done by the industry in improving product performance and supply chain manufacturing. We remain a committed stakeholder to this process should the JRC wish to get our further input. Our commitment to sustainability and responsible practices drives our collaborative efforts in shaping regulations reflective of the industry's realities.
17	General Comment; General Comment	Durability varies greatly across different raw materials hence spreading its environmental impact (water, energy, and chemical consumption) over its entire lifespan is a crucial sustainability assessment method, and further studies should be conducted on this approach.
19	General remark; /	Emotional durability has been mentioned, but is not clearly explained. We think it is important to elaborate on this aspect more, since consumers tend more and more to discard products based upon this aspect, rather than physical durability. We think it is crucial to include emotional durability for this reason.
53	1 6.2 10.4; 32 – 34, 46 – 48 1767 – 1768,1930 – 1931 5849 - 5855	We would like to point to two overarching, problematic and relating issues here: PEFCRs as a tool for measuring environmental impact and choosing apparel & footwear as a frontrunner for ESPR, using the logic of the Methodology for Ecodesign of Energy-related Products (MEErP). The first is mainly as we find PEFCRs hiding at the very end of the document: "ISO Type III environmental labels (ISO 14025:2016), known as Environmental Declarations, are labels presenting quantified environmental information on the life cycle of a product to enable comparisons between products fulfilling the same function. The Environmental Declarations were mainly envisioned for business-to-business communication, but their use in business-to-consumer communication is not precluded. The establishment of Product Category Rules ensures that the life cycle assessment is performed with specific rules aiming to foster transparency and facilitate comparisons between different Environmental Declarations. The EC promotes the establishment of commonly recognised Product Environmental Footprint Category Rules (PEFCRs). As any life cycle assessment, the Environmental Declarations are third-party verified." JRC should rather take note that there is a gaping lack of data and a lack of agreement on how products and data should be used in PEFCRs, and that a just result is completely unrealistic. Part of the textile industry (large brands) leads this work (PEFCRs for A&F), aiming to establish rules for the calculation of the PEF, which in itself is highly problematic as only those who pay to participate have voting rights. There is no indication that PEFCRs for A&F will be a tool that can in any way guide measuring products up against each other, as the data is outdated, boundary-problematic and geographical differences not contextualized. What is important for the overall environmental impact is that consumer buy fewer items and that they buy something they really like and need. The very idea that you can reduce the overall impact by weighting one product over the other, rests on assumptions that are not present. 1. we do not have good measurement methods 2. it is not certain that the differences between the products are big enough to make a difference 3. the difference between the products may also have to do with other variables that affect the use of the product, such as whether they fit, are liked, etc. and that for products such as apparel, it is primarily a question of finding the right thing. Thus, the logic of using PEFCRs collapses. It doesn't help if the trousers have a lower score (based on very uncertain numbers and systems), the most important thing is that they actually fit. PEF and other similar tools, as long as we cannot trust the data, is in danger of institutionalizing greenwashing.

ID	Section & line	Comment
		For ESPR, the logic behind white goods, and much simpler products that we mainly own one of and use until worn out, is transferred to A&F which is not acquired as replacement, but as a result of aggressive marketing and a market driven growth logic. A&F is not disposed of because it is worn out. (Access link: https://clothingresearch.oslomet.no/2022/10/19/review-of-clothing-disposal-reasons/) That said, we understand a consumer-facing label is postponed, however, B2B use of PEFCR is still problematic. And the logic that more durable products will be used for longer, and only replaced when unwanted, also remains throughout the document.
105	3.1.1 & 4.3 & 9.1.3; 343, 939, 2732	Line 343: increasing circularity should include circular input including recycled AND virgin renewable input instead of only considering recyclable content and recyclability: • line 939: UNEP roadmap towards a sustainable and circular textile value chain includes use of sustainable or recycled fibres "Textile raw materials are shifted to sustainable or recycled sources. There is a need to rapidly scale new and more sustainable production and cultivation practices for virgin raw materials, and to mainstream fibre-to-fibre recycling through improved practices as well as investment in waste management systems and infrastructure." 1 • line 2732: resource use and resource efficiency: consume raw materials produced in a sustainable way 1. UNEP. Sustainability and Circularity in the Textile Value Chain - A Global Roadmap. 2023. https://www.unep.org/resources/publication/sustainability-and-circularity-textile-value-chain-global-roadmap
106	3.1.1 & 4.3 & 9.1.3; 343, 939, 2732	More reasoning for the circular input including the use of bio-based, especially renewable wood-based, textile fibres: As the consumption of the textile demand is increasing, the utilization of biobased fibres becomes even more important. As the recently published Clean Industrial Deal2 states "To move away from fossil materials, it is vital to mandate the use of new raw material sources like recycled and bio-based materials to substitute, for example, virgin fossil materials in plastics. ----The Commission will also propose a Bioeconomy Strategy, to improve resource efficiency and to tap the significant growth potential of bio-based materials substituting fossil-based materials, and related industries." As the Clean Industrial Deal envions to align its priorities with the other Comission initiatives, such as upcoming revision of the Bioeconomy Strategy, it is important to also promote the uptake of circular input in the delegated acts under ESPR for various product groups. Even Communication on Biotechnology and Biomanufacturing3 highlights that bio-based content requirements in specific product categories and in public procurement could be established through the delegated acts of Ecodesign for Sustainable Products Regulation. For textiles in particular, the JRC4 highlighted the opportunities that bio-based textiles present in their policy brief:

ID	Section & line	Comment
		"Bio-based textiles can be made of natural, semi-synthetic and synthetic fibres. They can help reducing the use of virgin fossil-based synthetic materials, along with other strategies such as increasing textile-to-textile recycling and limiting overproduction. This is challenging, as fossil-based synthetic textile fibre production has grown significantly, reaching 67 % of the global market in 2023.4 Sustainable grown, renewable material should be considered circular input, similarly with recycled content. New virgin material is required to maintain recycling loops to compensate the decreased strength and length of the textile fibres. Virgin renewable raw materials can be supplied to loops according to principles of circular economy (CE), in a regenerative way. To sum, there are several strategies, communications, standards and ESPR considerations highlighting the need for renewable bio-based content: In addition to 1) Clean Industrial Deal2 and its mention about the Bioeconomy Strategy, 2) Communication on biotechnology and biomanufacturing3 and 3) Policy Brief on Bio-based textiles4, renewable raw materials are recognised as circular input by 4) World Business Council for Sustainable Development and its circular transition indicators5. Besides, core circularity indicators defined in 5) ISO 59020 (2024) Circular economy — Measuring and assessing circularity performance, contain renewable content equal to recycled and reused content of an inflow6. Even a slide in the 6) Ecodesign Forum meeting held in February contained a mention that "Raw material related aspects including recycled/renewable content amongst others – for all relevant materials including plastics – will be assessed within the respective preparatory studies/impact assessments for measures/products. On top of all, the renewability was acknowledged 7) in the 1st milestone consultation on textiles7. By including considerations about the renewability of the raw materials used to manufacture products among the essential requirements in the delegated acts of textiles, the Commission has the opportunity follow-up on their promise and to support the development of the bio-based products. The milestone studies of the preparatory study need a stronger consideration of existing bio-based solutions for textiles and the opportunities they present. 2. European Commission. Clean Industrial Deal. 2025. https://commission.europa.eu/topics/eu-competitiveness/clean-industrial-deal_en 3. European Commission. Communication on Building the future with nature: Boosting biotechnology and biomanufacturing in the EU. 2024. https://ec.europa.eu/commission/presscorner/detail/en/ip_24_1570 4. JRC. Brief on Bio-based textiles in a sustainable and circular bioeconomy. 2025. https://knowledge4policy.ec.europa.eu/file/brief-bio-based-textiles-sustainable-circular-bioeconomy_en 5. World Business Council for Sustainable Development: https://www.wbcsd.org/Programs/Circular-Economy/Metrics-Measurement/Resources/Circular-Transition-Indicators-v4.0-Metrics-for-business-by-business

ID	Section & line	Comment
		6. ISO 59020 (2024) Circular economy — Measuring and assessing circularity performance: https://www.iso.org/standard/80650.html 7. Comments to the 1st milestone of the preparatory study on textile products and answers from the JRC, pages 264-265 & 266-277: Answers_Comments_1st_Milestone_20241216.pdf
107	3.1.1 & 4.3 & 9.1.3; 343, 939, 2732	As different raw materials suit best for different applications, there should be room to select case specifically the best combination of renewable and recycled raw materials to minimise the environmental footprint. By utilising wood fibres originating from sustainably managed forests, as defined by Forest Europe and certified by internationally recognized schemes such as PEFC and FSC, Europe can reduce its dependence on fossil materials. As there exists no standard able to recognise the difference between the virgin and recycled origin, the verification methods should also consider the renewable, sustainable, content similarly as ISCC Plus certification8 recognises both biobased and recycled content. The certified wood fibres also enable tracking forest-based products from sustainable sources to the final product. To ensure that the textile industry becomes more circular and less energy intensive, it is important to follow a holistic approach that will consider the necessary steps along the entire value chain. As the choice of the fibres and the product's design not only define the textile product properties and performance, but also determines the environmental impact of the resulting product, we believe the European Commission should take measures to ensure renewable material inputs are the starting point of a more sustainable and circular European textiles industry. Biobased fibres can perform better from an environmental perspective. For example, the recent LCA study of Kuura9, one kind of viscose fiber, shows to perform well. It's GHG fossil emissions are remarkably smaller compared to cotton or viscose. 8. ISCC Plus Certification: https://www.scsglobalservices.com/services/iscc-plus-certification 9. https://www.metsagroup.com/metsaspring/portfolio/textile-fibre-from-paper-grade-pulp/
108	3.1.1 4.3; 343 939	Circular economy and circularity of products is not only about recyclability and recycled content. A major part of it is renewability. This is a very important aspect when we look at the textile fibre and material production, where emphasis should be put on more environmentally friendlier ways to produce natural fibres, and more importantly man-made cellulosic fibres. To mention a few: from novel textile fibres for example Kuura (developer Metsä Group), Spinnova, Ioncell have proven to have lower environmental impacts than more conventional fibres such as viscose. Kuura: chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.metsagroup.com/globalassets/metsa-spring/documents/lca-docs_feb-2025/250127-life-cycle-assessment-of-kuura-textile-fibre-2024_summary-report.pdf

ID	Section & line	Comment
		Ioncell: https://ioncell.fi/ Spinnova: https://spinnova.com/ UNEP. Sustainability and Circularity in the Textile Value Chain - A Global Roadmap. 2023. https://www.unep.org/resources/publication/sustainability-and-circularity-textile-value-chain-global-roadmap JRC. Brief on Bio-based textiles in a sustainable and circular bioeconomy. 2025. https://knowledge4policy.ec.europa.eu/file/brief-bio-based-textiles-sustainable-circular-bioeconomy_en World Business Council for Sustainable Development: https://www.wbcsd.org/Programs/Circular-Economy/Metrics-Measurement/Resources/Circular-Transition-Indicators-v4.0-Metrics-for-business-by-business
227	5.1 5.6 9.2.6.2; 1067 – 1112 + Table 11 1551 – 1552 3883 - 3891	Problem addressed: The demise of Europe's textile industry and what is not taken into consideration in the description. Also: Assuming that all value chains are global and no alternative exists. In relief with the description of base case as being production in India, China and Bangladesh. Explanation: There is a certain irony here, with the description of the demise of EU's vibrant textile industry as a backdrop (which seems to then be assumed be synonymous with BAT): "BC takes into account that China, India, and Bangladesh manufacture the largest part of textile apparel consumed in EU. This means that the BC is described by process techniques adopted in these countries, where the legislation allows higher emission into the environment compared to what happens in EU. The business model that characterises the BC promotes overproduction and overconsumption, supported by users that tend to change frequently their wardrobe. The end of life of the BC is described by landfilling and incineration of textile waste in the EU as well as in third countries. The BAT takes into account EU manufacture and the currently available less-impacting business models, user behaviours and waste management options. This means that the BAT is described by process techniques adopted in EU and described in the EU-BREF." Lacking in the description of the Multi-Fiber Agreement history and how Europe ended up exporting both its production and knowledge to the Far East, there is a missing factor: That this is the basis for Fast Fashion and the current conundrum. The division into BC and BAT attempts to capture this, but ignores f ex that the drastic increase in use of synthetics is one of the main enablers here. The description lacks the cultural heritage dimension, f ex the invention of tailoring being European, and the importance of the rich history of tailoring and couture making Europe the powerhouse of design and innovation for apparel and footwear. Also, as an estimate made by us (not verified) that 80% of EU's wool is wasted, burned or buried, and that Europe's massive linen production is hardly processed in Europe, rather exported exported to China, there is an ignoring of the potential for resuscitating this industry based on local resources. Once fast and ultra fast

ID	Section & line	Comment
		fashion has been dismantled, we will still need apparel and footwear, and the enormous natural resources currently not utilized within Europe, could become the basis of a blossoming industry. Suggestion: See EU's Textile strategy in light of Soil Mission, Farm2Fork, New European Bauhaus, instead of isolating the issues in silos. The success of local food should be a guiding light for this, and points to unexplored opportunities. Also, the document should add a description of EU's (remaining) textile and footwear industry and its link to both heritage and local small-scale handicraft and luxury production, thus not letting the background document talk about fast fashion as it is all there is. See fibershed.org, Earthlogic.info and https://link.springer.com/book/10.1007/978-3-030-88300-3 for more on this alternative path forward.
239	5.4 9.2.7; 1289 Table 15 3898	Problem: The exponential growth in synthetic fibers in general, and microplastics as a consequence of this. There is not enough focus on the basic problem, that synthetics are the basis for the growth of fast and ultrafast fashion, which is mainly related to price (cheapness) and availability (over-abundance). Synthetics can quickly meet demand, while natural fibers, need planning and a long-term investment by brands. Plastic pollution has been identified as one of our time's biggest environmental and health problem. Plastics are the cursor of our exponential increase in consumption, carriers of substances of concern and if not incinerated will eventually become microplastics. The health consequences of the latter are increasingly worrisome, as microplastics are found everywhere on earth and even in the human brain. Suggestions: Get more facts about the connection between synthetics and growth in production, as well as the dramatic fall in the price of clothing. Dismantle the one-sided focus on "durability" and highlight aspects that can solve the problems with greater precision and also does not have the side effect of promoting plastic. Ensure that no policy encourages the use of plastics, and that plastics are only used where absolutely necessary for functional reasons. https://clothingresearch.oslomet.no/2023/06/30/the-plastic-elephantoverproduction-and-synthetic-fibres-in-sustainable-textile-strategies/ https://www.nature.com/articles/s41467-024-49441-4 https://www.science.org/doi/10.1126/sciadv.adr8243 https://www.veronicabateskassatly.com/read/the-treatment-of-microfibers-in-life-cycle-analysis-and-product-environmental-footprint-applications
267	5.8 6.2.1; 1656 – 1658 1733	Our main concern: Purchase vs acquisition is defined too limited, as if purchasing is the only mode of acquisition. Also, the claim that there is "no established system that allows the direct measurement of the service lifespan of textile apparel", is not correct. This places all A&F consumer related choices in a market economy, when there are (more promising) options in other, parallel universes. This indicates that it is mainly the industry JRC relies on for its point of view. […] and […] has on several occasions made JRC aware that dating A&F would give a measuring tool for estimating Duration of Service on a brand level. And that policy and industry have made a choice to not introduce dating or to use waste audits to collect this data, is quite different than this not being possible to measure. Our recommendation: Look beyond to the informal market and include all modes of acquisition (gifts, homemade, inheritance, and so on). We encourage JRC to look at the entire value chain, including consumption/use and not write as if industry is the only legitimate stakeholder. Industry is also mainly described as the big actors, not the SMEs and micro-sized businesses, crafts, Fibersheds, etc. Until dating products becomes mandatory, use this method to collect the data needed on DoS: https://clothingresearch.oslomet.no/2024/04/18/new-method-to-capture-relationship-between-properties-and-use/ 'Home sewing practices': https://www.mdpi.com/2071-1050/10/8/2899

ID	Section & line	Comment
285	6.2.1 9.2.6; 1764 – 1766 3771 - 3777	This is what JRC postulates: "However, some seem to be linked to the need to replace apparel that is old, worn out or broken to a certain extent. In these cases, information requirements on reparability and disposal could guide the user concerning ways to repair the product to ensure optimum durability." "The trend turnover is a fundamental factor that defines a business model. Some companies opt to implement business models characterised by continuous novelty and disposable trends in constant change (Centobelli et 3772 al., 2022), designing their products for rapid trend turnovers through obsolescence and early disposal. Other companies, in contrast, implement business models with less frequent trend turnovers, focusing on product durability and reverse logistics. The number of seasons or trends that are placed on the market largely affects the environmental impacts. Rapid trend turnovers tend to drive consumers (directly or indirectly) to replace clothes, even when it is still not necessary from technical perspective." This is problematic, because: Replacement and reason for disposal and purchase are confused. In SIFO's research, which JRC cites, on reasons for disposal, around only 1/3 is disposed of because it is worn out or broken, 'old' is not defined other than no longer fashionable, and which no 'repair' will enable for longer use. But tying this number to replacement is questionable in itself. The idea that disposal leads to replacement is a theory, and very little research has been done in this area, Irene Maldini is one of the very few who has looked at this, and she found hardly any relationship between disposal, acquisition and replacement. What is already in the wardrobe is not necessarily perceived as "not trendy". New things are bought and sooner or later something has to go out. All this replacement stuff is an obsession. When it comes to reasons for disposal, these have been studied, but there has been no study of how they are related to acquisitions! So, we do not necessarily replace what we dispose of. Conversely, it is also the case that people use clothes that are both worn and worn out and damaged in an infinite number of ways. Find out where and in which product groups replacement has an effect. Don't assume it applies to clothes, although this may apply to washing machines. Point out the knowledge gap that there are so few studies looking at the effect of disposal on purchasing - and conversely the effect of purchasing on disposal. This is knowledge that is not only important for a possible design directive, but will also have a decisive effect on waste management.
286	6.2.2 6.2.6 6.2.7 9.2.5; 1777 – 1778, 1795 – 1796 1989 – 2006 2007 – 2020 3565 - 3567	Concern: Using consumer surveys as facts, as there is a difference between what consumers say and what they do. We quote: "Quality and price are paramount factors influencing consumers' apparel purchasing decisions, with 97% emphasising the importance of product quality" "According to a Cotton Incorporated (2014) survey, the top pre-purchase drivers for sportswear among consumers are comfort (77%), fit (69%), washes clean (65%), quality (64%), and durability (62%)." Consumers' awareness/fear of toxic chemicals, is another example, where questionnaires can be problematic. Consumers' attitudes towards recycled content is also part of this complex, as the question-boundaries are very unclear, how one defines recycled content, f ex. Based on the above, this is then an assumption: "With a growing interest in textile products containing recycled fibres, there should be also a growing demand for certification schemes based on chain of custody systems capable of tracking the source of the recycled fibres used." We would like to remind JRC that questionnaires are weak when used in this way. The 'correct' answer is 'quality', but there is no agreement on what quality is or how can consumers actually gain knowledge on something so diffuse? Chemicals are not part of labelling requirements and

ID	Section & line	Comment
		since no one 'sees' them except as colors, they for the most part invisible, so the lack of attention means that people are not necessarily afraid or concerned at product level. They may also believe that strict laws ensure we are safe from them. If we look at the environmental impact, however, people have some degree of awareness. As bans and improvements will come in to place, this is one of the most important arguments for actually dating products. GoreTex should be treated as special waste until it no longer contains PFAS, as one example. The studies cited here on consumer preferences for recycled content, are again consumer surveys, and depend on how the questions are posed and if unclear, concepts such as "quality" are used, in the interpretation of durability. For what type of products do they accept recycled materials, and what type of recycled materials are we talking about. Typically, brands will have bold marketing of 'recycled content', but will not say if f ex the recycled material stems from rPET from bottles, which the consumer has learned is a 'bad' choice. A consumer study of this needs to be much more nuanced. A recent study from Consumption Research Norway shows very little willingness to acquire apparel in recycled synthetic materials. https://clothingresearch.oslomet.no/2023/01/26/natural-and-sustainable-consumers-textile-fiber-preferences/ Use consumer surveys with precaution. They might say something about praxis, but often not. Use sources that better capture realities. This is especially important when discussing unclear concepts. For making the consumer aware of level of quality, one first has to agree on what quality is and make this understandable and accessible. In many cases consumer will have diverging opinions on this, for example are thin materials delicate and nice, or flimsy and weak? Are heavy materials better, or are they cumbersome? For chemicals that should concern consumers, they would be better protected if all products were dated, so that consumers can better know if chemicals of concern are possibly in the products or not. For attitudes towards recycled content, commission a consumer study to properly study this including reaction to actual materials and not only words describing them. Also make consumers aware how little the environmental gain is, here estimated to be 1.3%.:https://ivl.diva-portal.org/smash/record.jsf?pid=diva2%3A1833833&dswid=9564 This is important to not make recycling an excuse and a vehicle for overconsumption.
290	6.2.3 9.2.1 9.1 9.1.2 9.2.1.1 9.2.1.2 9.2.1.3 9.2.6.1; 1852 – 1853, 1867 – 1868, 1887 – 1889, 1891 – 1892, 1893 – 1894, 1895 – 1899 2539 – 2547 2802 – 3011 table 40, 2722, table 41, 2732, 2738 – 2744 2832 – 2848 2863 – 2879 2880 – 2992 3835	Commenting: "Consumers also tend to associate durability and ease of care with higher quality apparel, with a strong expectation for long-lasting products." "Consumers expect high-quality apparel to be durable (Yuille, 2015). In fact, 43% of survey 1867 respondents declared that long-lasting products are generally better quality (Consumers, Health, 1868 Agriculture and Food Executive Agency et al., 2018)." "Overall, the references analysed provide consistent views on the fact that the assessment of quality by users is multifactorial and somewhat subjective because, inter alia, it is largely based on tactile experience with the apparel." "However, how consumers assess quality is not always clear as this can be very subjective." "Information requirements on product aspects linked to durability, and even reliability, could enable consumers to better understand and assess the quality of apparel." "In order to facilitate the user's assessment of the quality of apparel, performance requirements based on product durability, reliability and reusability aspects could, as appropriate, include minimum levels. Another possibility could be to define requirements connected to the functional performance of apparel. Information requirements related to the above-mentioned product parameters could serve as metrics to guide users' assessment of quality in apparel." "Perceived quality of the product is a decisive factor to discard textile apparel (Aakko and Niinimäki, 2021)"

ID	Section & line	Comment
		Concern: Durability as key aspect, will favour plastics over natural fibers and materials. We see a lot of ignoring the context and nuances of the research. Alos, fiber-blind thresholds and unnecessarily complex measurement parameters. In the document, durability is seen as equalling quality, which is on one hand objective, and on the other hand subjective. Yes, consumers use 'quality' as a concept to appear as good consumers. But an important ambiguity for the confusion, is unclear marketing, greenwashing and low prior knowledge. If marketing was more focused on informing about the properties of products, and these were communicated in a more standardized and understandable way, it would be easier to orientate oneself. We do not have research that shows that physical durability as defined here, has an impact on DoS, let alone new acquisitions, so there is no basis to say that they will reduce environmental impact. Consumers buy or acquire apparel for many different reasons, where durability is not the main driver, for example a silk dress will be perceived as quality, but will be less durable than a synthetic item. Consumers look for many attributes, including drape, warmth, less prone to smell, occasion-needs, etc. And they dispose of apparel for several reasons; 'durability', wear and tear are not a main driver. An extremely industry-focused approach and to a lesser degree takes into account consumers' perspective. Using Consumption Research Norway's research to underpin this logic, is problematic, as the nuances are lost: The research cited here, actually discusses willingness to repair based on price and value-assessment of garments (and other goods), not durability/quality as cited. The research discusses the lack of congruency around defining quality, which here is ignored. Also, problematic is that under the section on measuring durability, JRC does not address fiber-specific thresholds, and as pilling is the major durability issue (which arguably could be seen as a repair issue, as a pilling comb will fix some pilling-issues. High quality cashmere pills, low quality synthetics pill. In the first it is expected and easy to deal with, in the second not. So quality is on a continuum. So choosing durability as an important aspect is not informing consumers in a useful way. Quite the opposite. There is also a danger of implementing measures, such as adding extra buttons, which will increase the environmental burden, based on non-existent research of effect. Suggestion: Do not use unclear concepts like "quality", and do not mix the concepts durability and quality. Understand that different products and different consumers wishes are a complex mix of aesthetic and technical properties, from there start to understand quality as a complex "web" of qualities. This web makes design requirements complex, and this should be discussed. It might be that it should be limited to specific problems that are both documented, f ex for specific product groups and not be mandated or related to all apparel. Date products, make dating mandatory on EU's market and use waste audits to establish DoS. https://clothingresearch.oslomet.no/2024/04/18/new-method-to-capture-relationship-between-properties-and-use/ Also use the research not to back industry perspectives, but to understand the consumer as a major stakeholder. This is actually EU's mandate, to protect us.
297	6.3.1 9.2.2.1; 2022 – 2074 3053	The document lack updated washing/care research and lacks inclusion of important aspects for care. Why use research that is old, when more recent research, f ex on the importance of filling grade in machines as an undervalued parameter in laundry practices, is not present in the document? Also, lack of dividing laundry habits on fiber type is not accounted for. This is one of the only places microfibers is discussed, but laundry is a very little part of the microplastics problem, as plastic pollution from textiles is mainly at the end-of-life stage, and also in use. Why is this singled out as a way to reduce environmental impact: "Running short washing cycles and reduced spin speed"? Because of less energy use, one wonders? When filling grade and which frequency is not mentioned as an issue here, which is more important. Spin speed is important to remove the dirty water, and to reduce drying time. Long washing cycles have been developed to reduce energy with the same washing results, but not necessarily to give us what we want: clean clothes. This does not align with state-of-the art research.

ID	Section & line	Comment
		Solution: Use more updated sources, and include filling grade: Look at f ex Klint's PhD, which addresses, among other things, what is the functional unit of laundering, a stellar study that JRC really should read. https://clothingresearch.oslomet.no/2024/09/13/new-phd-makes-a-splash-the-function-of-the-laundry-and-the-limitation-in-self-reported-data/ In sum: include filling grade and remove "reduced spin speed and short washing cycles" as this does not align with what we know about having clean clothes and environmental impact of laundering.
306	6.4.3 9.1.3 3.2.1; 2249 – 2286 2738 – 2744 426, table 7	It is problematic to call the process of using and keeping things for a long time 'emotional durability' and assuming this can be 'designed into' a product. The Niinimäki and Armstrong (2013) study shows how many different factors contribute to clothes being liked and worn for a long time. However, it does not show whether it is possible to design for this. As far as we know, these are only theories and assumptions. We do not think that distinguishing between emotional and physical durability is particularly wise or helpful. As JRC points out, it is highly unclear how a concept such as emotional durability could be measured. But this also applies to technical and physical durability. We do not have research that shows that stronger garments are worn more or longer – quite the contrary, the connection between strength and lifespan is complex and the lack of knowledge is great. It is therefore more important to measure actual lifespan (Duration of Service - DoS) and promote companies that contribute to clothes that are worn/last long, regardless of whether this is due to technical/aesthetic aspects or whether this has to do with marketing practices. A possible approach: Instead, one needs to study the products from the point of disposal in order to gather actual data on DoS. Building policy on loose speculation or theories is not a good idea. Policy should instead direct its attention in the opposite direction: How long and how much something is used (DoS) is possible to measure and provides exact data. This will be made easier by dating clothes, as we have now mentioned several times. We don't need "durability" and especially not a division into physical and emotional durability. It is much better to work with facts and waste audit data, in order to establish DoS. We could also offer a thought experiment: In PCs and cell phones software is what makes the products more than "just" a typewriter or a phone. However, for some consumers (very few) they will remain purely a typewriter or a phone, no matter how much the software offers of possibilities. While the hardware (the actual product) has a look and function that can satisfy esthetically and through parameters such as durability and repairability predict a long or short lifespan. But one doesn't separate the two into physical and emotional durability. One sees it as a 'package'. But without the software, both are just empty 'boxes' with no real function. For a jacket, the designer will take into consideration many of the same elements, even though the owner will own several jackets simultaneously, as there's weather to consider, occasions, etc. (one would not wear the same jacket to a wedding as skiing, f ex). However, the designer may design in many features, which are under-used, as described above with pc and cellphone examples. An outdoor GoreTex jacket could be designed to climb the highest mountain, to withstand the most extreme weather conditions, but a consumer can potentially only use it to walk the dog in the rain or buy it because he or she likes to look like someone who climbs mountains. A dress could, similarly, be designed to withstand harsh use and many wash cycles, and then is worn to one party, and never again, as the owner has 20 other dresses that have nicer colors or are more 'proper' for the type of parties she gets invited to. How will physical and emotional durability 'explain' these examples? Some apparel should withstand 'heavy use' and/or 'heavy care', other apparel is there for 'light use' and/or 'light care' – the user decides and makes sense of the 'software' of the product: warmth, cooling, safety, being dressed for the occasion/social codes, drape, fit – all the tangible and non-tangible aspects that may or may not ensure a long duration of service and that cannot be translated into "bad case", "base case", "Best Available

ID	Section & line	Comment
		Technology" and "BNAT" for a jacket or a dress. The problem of grouping products in the same way as PEFCRs does, becomes glaring, when one starts looking at 'real world' uses of the garments. In our minds, it is time to go back to the drawing board and rethink what needs measuring and why. It is not possible to predict DoS at the start of aa product's lifespan. In PEFCRs ANNEX VI, the Holistic Durability Working Group is on record demanding more research around this, but maybe the question needs to be asked differently all together, not trying to predict DoS of new product, and not dividing into intrinsic and extrinsic, acknowledging the complex web of attributes – or how 'softwear' (sic) and hardware become intertwined.
696	9.2.1.2, 10.9.1.1; 2863-2879, 2939 and 7041-7045	While it is true that the performance of textile products depends on many factors, natural and man-made fibres perform differently in the tests traditionally conducted to measure the physical durability of products. Synthetic materials tend to be advantaged in many tests due to their fibre properties. Natural materials can achieve the same level of performance in those tests, though fabrics may need to be denser or heavier, with higher cost implications than synthetic fibres. However, garments made of synthetics do not necessarily have a longer lifespan than those made of natural materials. On the contrary, garments made of natural materials often tend to be more valued by users, who will take better care of these garments and keep them in use for longer. It is, hence, crucial to set the right ecodesign requirements and incentives to ensure a minimum level of quality for both natural and synthetic materials, without indirectly favouring the latter or incentivise the use of blends between natural and synthetic materials that are not recyclable at scale. We regret that the JRC did not assess BC, BAT and BNAT separately for synthetics and natural fibres, at least to assess whether the BC of apparel products would be also dependent on the material chosen, among other factors. On the contrary, in Section 9 the JRC seems to dismiss this variable, but at the same time the JRC recognises in Section 10 that "is possible to influence the intrinsic durability of products with many factors, which include the use of different fibres: for instance, in the manufacturing of denim products, the utilization of synthetic fibres, linen and hemp - rather than 100% cotton- can help to produce high-durability denim products particularly with respect to tensile and abrasion resistance (Elmogahzy, 2020)." The approach of the JRC seems incoherent. Synthetic fibres like nylon and polyester generally have higher tensile strength compared to natural fibres. Cotton fibres have high strength but low extensibility and elasticity. Wool fibres have relatively lower strength but high extensibility and elasticity. Furthermore, synthetic fibres like nylon and polyester typically have high abrasion resistance. Natural fibres, like cotton and wool, generally have lower abrasion resistance compared to synthetics. Fibre length and fabric construction also play significant roles in abrasion resistance, regardless of fibre type. We encourage the JRC to assess the BC, BAT and BNAT of apparel in relation to abrasion, tensile, tear and bursting strength separately for natural and synthetics. As for blends, a threshold could be defined to decide whether a product falls into one category or the other: for example, a product would need to have at least 90% or 80% of natural fibres to have to comply with the threshold for natural materials (hence if you have more 10% or 20% respectively of synthetics in a blended product, you would need to comply with the threshold for synthetic materials). If Table 44 will be used as a template for design requirements in Task 6, we strongly advise having different thresholds on tensile strength, tear strength, bursting strength and abrasion for fabrics made with natural fibres on one side and synthetics on the other side.
2277	10.2, 10.6, and 10.9.1; 5525 to 5762, 5907 to 6904, and 7015 to 7806	Comments on Sections 10.2, 10.6, and 10.9.1: These sections show by way of example that there is no adequate distinction between conventionally and organically produced natural fibres nor

ID	Section & line	Comment
		between conventional versus sustainable processing of textile products throughout the Preparatory Study and the underlying data (the term 'organic' in the sense just described does not appear at all in Sections 10.2 and 10.6 and only once in Section 10.9.1). We therefore urge the JRC to make this distinction as it is essential for an accurate assessment of (a) the respective impacts and sustainability contributions throughout the life-cycle stages of textile apparel from raw material and fibre manufacturing to waste management, (b) the user behaviour in all stages from reasons for purchasing and criteria used when buying throughout the use phase to the disposal of apparel, and (c) the more detailed environmental impacts such as energy, water, and resources use and efficiency. In this context sub-section 10.9.1.9 on energy use and energy efficiency should explicitly address raw material extraction and cultivation. The textile industry significantly contributes to rising GHG emissions, driven by factors such as the intensive use of fertilizers and pesticides in natural fibre production, and heavy reliance on fossil fuels for both synthetic and conventional natural fibre production. Organic cotton production presents distinct advantages, particularly through reduced tillage operations and the elimination of chemical fertilizers and pesticides, leading to lower energy consumption and emissions. Including the stage of raw material cultivation is also important for the evaluation of socioeconomic impacts as described e.g. in sub-section 10.9.1.15. Unfortunately, not only "workers and the communities working around the manufacturing plants" are suffering from environmental degradation and health issues, but also farmers and farming communities in third countries which are directly impacted by the use of synthetic pesticides and fertilizers. Finally, in sub-section 10.9.1.11 on resources use and efficiency it should be explicitly mentioned that organically produced textile items fulfil the criteria of "textile apparel with low resource use or high resource efficiency" as outlined in the Preparatory Study (Table 41), by using renewable raw materials produced in a sustainable way and by promoting biodiversity, maintaining soil health, supporting ecosystems, and reducing pollution through organic farming.

Annex 2. Comments on the introduction

Table 25. Comments on the introduction

ID	Section & line	Comment
31	Introduction; 1	[...] welcomes the opportunity to provide comments on the working document. We believe this report can be an opportunity to transition to a more sustainable textile ecosystem, as it provides an opportunity to identify the most important priorities for impactful ecodesign criteria. The Ecodesign for Sustainable Products Regulation (ESPR) comes with the following subject matter and scope: This Regulation establishes a framework for the setting of ecodesign requirements that products have to comply with to be placed on the market or put into service, with the aim of improving the environmental sustainability of products in order to make sustainable products the norm and to reduce the overall carbon footprint and environmental footprint of products over their life cycle, and of ensuring the free movement of sustainable products within the internal market. In the workshops for the first and second milestone, involving stakeholders who could contribute to the working document on textiles (and, ultimately, the

ID	Section & line	Comment
		JRC report on the same topic), concerns were raised that the design parameters laid down in the ESPR may not be the most appropriate to achieve the aims mentioned above, given the particularities of the textile and fashion sector and its unique consumer behaviour. Since the ESPR states that the product parameters listed in annex I of that regulation "shall, as appropriate, and where necessary supplemented by others, be used, individually or in combination, as a basis for improving the product aspects", it appears necessary that the working document discusses the limitations of the chosen parameters more systematically, in order to better assess whether they can be considered appropriate and adequate to serve the purpose of the regulation. This would be in line with what was said during the second workshop: while the ESPR provides the framework within which the ecodesign requirements must be chosen, and it is not possible to deviate from this, it is still possible to highlight weaknesses and shortcomings in the JRC report. Similarly, the working document should identify synergies and overlaps with other legislation, in order to put the limitations of ESPR into context. [...] believes that the following items in the working document would benefit from a more nuanced and thorough discussion and from additional information:
32	1; 1-148	General comments: We propose establishing clear guidelines for the focus of this first version of Ecodesign for textiles: • Ensuring information flows through the supply chain for manufacturers (not consumer information) to get more insight into their own supply chain. The focus should be on specific environmental hotspots such as energy and water consumption in relevant areas (areas should be clearly specified based on clearly defined hotspots) of production chain and information on the use of very harmful substances. • Require information of recycled content. • Set relevant minimum durability requirements related to fabric and not connected to product categories. • Ban destruction of unsold goods. • Provide information on the possibility of repairing the product.
33	PEF Guidelines; 1	My concern: An ESPR system based on PEF will disadvantage raw material sourcing countries due to the use of default EU characterisation factors. Explanation: PEF impact categories such as climate change, land use, ecotoxicity, acidification and eutrophication are based on European-default characterisation factors. With the farming stage typically dominating the environmental impacts of natural fibre products, PEF scoring must reflect the regions where those impacts are experienced. Application of default EU characterisation factors to remote countries with vastly different climatic and environmental conditions to the EU often significantly over-estimates environmental impacts experienced in those countries.

ID	Section & line	Comment
		A better way: Characterisation factors in PEF should be amended to ensure impacts are relevant to the regions where the impacts occur.
35	1-2; 3-148	The report focuses exclusively on fashion, neglecting industrial textiles and textile services. This raises concerns about how these sectors are addressed.
37	1 Introduction - Context; 21 and 22	EU Ecolabel products include both goods and services. Therefore, for accuracy and informational purposes, the phrase '…which is the EU's official voluntary label for environmental excellence awarded to best-in-class products' should be revised to '…which is the EU's official voluntary label for environmental excellence awarded to best-in-class products (goods and services).
38	1; 25-29 and 36-44	Concern: Failing to deliver the EU's important strategy to 'tackle fast fashion' by overlooking the impacts of plastics. Context: The increased availability of low-cost polyester and other synthetic fibers has significantly accelerated the fast fashion model, leading to excessive textile waste and environmental degradation. While natural fiber production (e.g., cotton) undergoes detailed environmental scrutiny, synthetic fibers derived from fossil fuels do not face comparable assessments, resulting in an inherently flawed sustainability comparison. Fast fashion has been driven by synthetic fibers, not cotton. In 2023, total fiber production reached 107 million tons, with synthetic fibers accounting for two-thirds of all textile fibers. Of these, polyester alone comprises approximately 80% of total synthetic fibers. Between 2003 and 2023, fiber production doubled from 54 million tons to 107 million tons, while the global population only grew by 25% (from 6.3 billion to 8 billion). However, this growth has been dominated by synthetic fibers, which increased from 29 million tons to 76 million tons, whereas cotton demand only grew modestly from 21 million tons to between 24-26 million tons. In terms of per capita fiber consumption, the cotton share has actually declined, further proving it is not responsible for fast fashion: • Cotton per capita consumption declined from 3.35 kg in 2003 to 2.91 kg in 2023. • Non-cotton (mainly synthetic) per capita consumption more than doubled, from 5.44 kg in 2003 to 10.45 kg in 2023. This clearly indicates that fast fashion's rapid expansion is driven by synthetic fibers, not cotton. Yet, PEF does not assign an environmental penalty for this phenomenon, despite the well-documented issues of overproduction, excessive waste, and plastic pollution linked to synthetic textiles (Ruiz, Lorena. World Textile Demand, ICAC, 2024). Another critical exclusion in PEF is microplastic pollution, a direct result of polyester fiber shedding during laundering. Research has shown that each wash releases thousands of microfibers into wastewater, which pass through treatment facilities and enter rivers, oceans, and even the food chain. Recent estimates indicate that the average person unknowingly ingests the equivalent of a credit card (0.17 ounces) of microplastics every week (Nature Communications, 2024). Moreover, polyester fibers have been detected in human blood, lungs, and even brain tissue, raising serious health concerns (Oslomet, 2023). Another major omission in PEF is plastic waste accountability. Polyester is a plastic-based fiber, and yet it is not evaluated under EU plastic waste policies. A recent study in Nature Communications estimated that 7.39 million metric tons of plastic leak from the synthetic apparel value chain annually, contributing to the global plastic pollution crisis (Nature, 2024). Furthermore, macroplastics from discarded polyester textiles eventually break down into microplastics, exacerbating their long-term environmental impact. In contrast, natural fibers like cotton are inherently biodegradable. While polyester persists in landfills and oceans for decades, breaking down into

ID	Section & line	Comment
		microplastics, cotton and other natural fibers decompose naturally without harmful residues. Despite overwhelming evidence, PEF fails to assign any environmental burden to synthetic fibers for their persistence in ecosystems. Natural fibers, which degrade naturally and return to the environment, should be recognized for their circularity and biodegradability benefits. A better alternate: A truly sustainable assessment must recognize the inherent advantages of biodegradability, renewability, and circularity while addressing the long-term environmental burden of synthetic fibers. The PEF methodology currently underweights these critical factors, leading to an incomplete and misleading comparison between natural and synthetic textiles. This gap could be corrected by incorporating a circularity indicator, such as the Ellen MacArthur Foundation's Material Circularity Index (MCI) or WBCSD's Circular Transition Indicator (CTI). These tools measure how effectively materials fit within a circular economy, ensuring that biodegradability and renewability are fully accounted for in sustainability assessments. By integrating such metrics, PEF would align more effectively with the European Commission's Circular Economy Action Plan (CEAP) and provide a more accurate representation of textile sustainability (MDPI, 2024). Integrating circularity, plastic waste accountability, and microplastic pollution into PEF assessments would significantly improve the framework's credibility and fairness. Without these critical updates, PEF will continue to present an incomplete and biased sustainability assessment that fails to adequately reflect the environmental costs of synthetic fibers.
40	Introduction and Aim; 25-29 and 36-44	The impact of plastics is not taken into consideration by the EU strategy to tackle fast fashion. The increased availability of cheap synthetic clothing has been shown to be a key enabler of fast fashion, yet none of the major environmental impacts of synthetics are accounted for in PEF scoring of textiles (non-biodegradable, non-renewable, microplastics). A Circularity index needs to be introduced to complement PEF.
41	Introduction Aim; Introduction 25-29 Aim 36 -44	PEF currently fails to address the environmental impacts of synthetic fibres, including non-renewability, non-biodegradability, and microplastics, which are significant costs of fast fashion. This is particularly concerning for heritage products like [...], which are designed for longevity and biodegradability. Synthetic fibres, on the other hand, enable the fast fashion model due to their low cost and short lifecycle. Despite this, the PEF methodology does not include microplastics as a weighted impact category, merely reporting them as additional information. This significantly underrepresents the environmental harm caused by synthetics, including the accumulation of microplastics in ecosystems and human health risks. To provide an equitable assessment, PEF should incorporate a plastic waste indicator and circularity metrics such as the Ellen MacArthur Foundation's Material Circularity Index. This would accurately reflect the advantages of renewable, biodegradable fibres like Harris Tweed® wool, supporting the EU's fast fashion strategy and ensuring consistent alignment with the Circular Economy Action Plan.
42	Introduction Aim; 25-29 36-44	PEF fails to address the EU's goal of curbing fast fashion by neglecting the environmental consequences of synthetic textiles. The rise of low-cost synthetic fibres has been a primary enabler of fast fashion. Yet, major environmental concerns associated with these materials—such as their non-biodegradability, non-renewability, and microplastic pollution—are excluded from PEF's weighted scoring system. • Microplastics, in particular, are not incorporated as a weighted impact metric in PEF, meaning they have no influence on a product's environmental score. Instead, they are relegated to a side note as "additional information," rendering them invisible to consumers. The Rise of Lifecycle Analysis and the Fall of Sustainability: Berlin 202030 — Veronica Bates Kassatly (Access Link: https://www.veronicabateskassatly.com/read/the-rise-of-lifecycle-analysis-and-the-fall-of-sustainability-berlin-202030) The environmental Price of Fast Fashion (Access Link: https://www.nature.com/articles/s43017-020-0039-9)

ID	Section & line	Comment
		Critical Review of Product Environmental Footprint (PEF) (2).pdf (Access link: https://clothingresearch.oslomet.no/wp-content/uploads/sites/1026/2023/02/Background-paper-on-PEF.pdf) To align with sustainability goals and the Circular Economy Action Plan (CEAP), PEF must be complemented with circularity indicators, such as: • The Ellen MacArthur Foundation's Material Circularity Index, or • The WBSCD Circular Transition Indicator (CTI). Additionally, a plastic waste indicator must be integrated into the PEF methodology to accurately reflect the long-term environmental impact of synthetic textiles and support EU directives on plastic pollution. Using LCA and Circularity Indicators to Measure the Sustainability of Textiles[1] (access: https://www.mdpi.com/2071-1050/14/24/16683) Delivering EU Environmental Policy Through Fair Comparisons of Natural and Synthetic Fibre Textiles in PEF (Access Link: https://www.makethelabelcount.org/globalassets/make-the-label-count/documents/gd4505-mtlc-pef-whitepaper-final.pdf
45	1; 31-35	Concern: Disadvantaging raw material sourcing countries through EU-centric characterization factors. Context: PEF impact categories such as ecotoxicity, land use, acidification, and eutrophication are calculated using default European characterization factors, which fail to account for regional variations in climate, agricultural practices, and resource availability in cotton-producing countries. As a result, the environmental footprint of cotton is often overestimated, while the impact of synthetic fibers derived from fossil fuels remains underassessed. As a natural fiber, cotton originates from the Earth, serves as a durable textile material for decades, and biodegrades naturally at the end of its life cycle. Unlike synthetic fibers, which persist as waste and release microplastics, cotton is part of a closed-loop biological cycle that minimizes environmental damage. Furthermore, cotton's adaptability to arid climates makes it a resource-efficient crop. As a semi-xerophyte plant, it thrives in regions where water and fertile land are scarce, ensuring that it does not compete with food crops for critical resources. Despite misconceptions about its water consumption, cotton occupies just 2.38% of global cropland and uses only 1.7% of global irrigation water—a fraction of the total agricultural water footprint. Irrigated cotton accounts for only 4.0% of the global irrigated area, covering 14 million hectares out of a total 350 million hectares of irrigated land worldwide. These figures demonstrate that cotton is not a major driver of excessive water use, yet PEF

ID	Section & line	Comment
		calculations continue to misrepresent its water footprint by applying outdated global averages instead of region-specific data. Additionally, cotton's overall resource footprint is significantly lower than that of synthetic fibers. It accounts for just 4.3% of global pesticide use and 2.8% of total global fertilizer consumption (Kranthi, Kehav, Cotton Databook), much lower than other major crops. Furthermore, cotton's carbon footprint is less than 2 kg CO_2 per kg of fiber, whereas polyester emits between 5-14 kg CO_2 per kg of fiber, making synthetic fibers a significantly greater contributor to climate change. (https://cfda.com/resources/materials/detail/polyester, https://cottontoday.cottoninc.com/our-sustainability-story/microfibers/plant-based-biocompatibility/). A better alternate: To ensure a fair and regionally accurate sustainability assessment, PEF must adapt its characterization factors to reflect actual environmental conditions in raw material-producing regions rather than applying default European values. Land use assessments should recognize that cotton is often grown in semi-arid regions unsuitable for food crops, making it an efficient and sustainable fiber source.
46	1; 31-35	The PEFCR for Apparel & Footwear (AFPCR) is a wholly inadequate document on which to base the quantification and reporting of the environmental impact of textile products. The AFPCR, unfairly penalises natural materials by considering only the negative impacts of their agricultural sources, applies arbitrary measures for the assessment of durability and does not measure the release of microfibres / microplastics. The mitigates in favour of synthetic materials against natural materials and is likely to have unwanted negative consequences. The duration of service (DoS) measures in the AFPCR are based on the expected durability of a given product made from a given material. These measures are entirely arbitrary and cannot accurately reflect the DoS of any product made from any material, particularly as they include no measure of design and build quality. As noted in this document, 'a textile apparel with a dense cotton fabric and well-constructed seams can outlast a polyester-based product with loosely woven fabric and inadequately constructed seams (line 2869). The durability of polyester is unquestionable but this does not automatically translate into long-lived products. Conversely, well-designed and constructed products made of ostensibly less durable materials, such as wool, may last a lifetime. The situation is further complicated by consumer attitudes and behaviours towards low-value synthetics, which may be rapidly disposed of, and higher-value natural materials that may illicit greater attachment and care and consequently a longer life. Failure to properly acknowledge the potential for an extended DoS for natural materials in any consumer facing information could lead to consumers favouring lower-priced synthetic 'fast fashion' as there will be no perceived advantage in the higher premium for a natural product. AFPCR provides no requirement to account for microfibre and microplastic emissions; in fact microfibres are mentioned only once in the main body of the text and microplastics not at all. This is in contrast to Green Claims Directive Recital 32 states "the adoption of PEFCR may take place only once these new relevant environmental impact categories have been added" and "as regards textiles, the PEFCR should for example reflect the microplastics release, before the adoption of PEFCR could be considered". Given the well-document ed health and environmental concerns regarding microplastics, it would seem essential that any consumer information on environmental impacts of a product should include a transparent and comprehensive reference to its potential for microfibre and microplastic emissions.
47	PEF Guidelines; 31-35	Growing countries are disadvantaged by EU-centric characterization factors. PEF impact categories such as ecotoxicity, land use, acidification and eutrophication are based on European standard characterization factors. Since the environmental impacts of cotton cultivation are usually attributable to the growing phase, the PEF assessment must reflect the regions where these impacts occur.

ID	Section & line	Comment
		When applying EU characterization factors to remote countries with significantly different climatic and environmental conditions than those in the EU, the environmental impacts occurring in these countries are often significantly overestimated
48	PEF Guidelines; 31-35	Disadvantaging raw material sourcing countries through EU-centric characterisation factors. Context PEF impact categories such as ecotoxicity, land use, acidification and eutrophication are based on European-default characterisation factors. With the farming stage typically dominating the environmental impacts of natural fibre products, PEF scoring must reflect the regions where those impacts are experienced e.g. the African continent. Application of EU characterisation factors to remote countries with vastly different climatic and environmental conditions to the EU often significantly over-estimates environmental impacts experienced in those countries. A better way Characterisation factors in PEF should be amended to ensure impacts are relevant to the regions where the impacts occur.
49	PEF Guidelines; 31-35	PEF applies European characterisation factors to evaluate environmental impacts, disadvantaging products like [...]. The environmental conditions of the grazing lands of the wool-producing flocks may be significantly different from those in elsewhere, leading to inaccurate impact assessments. For instance, low-intensity grazing practices support biodiversity and soil health, contributing positively to the local ecosystem. Applying generic factors overestimates impacts and fails to capture the regional benefits of traditional farming practices. To ensure fair and accurate evaluations, PEF must adopt region-specific characterisation factors that reflect the actual environmental conditions of the sourcing locations. This would provide a balanced assessment of [...]'s environmental footprint, safeguarding the cultural and economic sustainability of heritage textile industries.
50	PEF Guidelines; 31-35	The current PEF characterisation factors unfairly disadvantage raw material-producing countries outside the EU. Many PEF impact categories—including ecotoxicity, land use, acidification, and eutrophication—are based on European-default characterisation factors. Since natural fibre production is heavily weighted by agricultural impacts, this approach fails to reflect regional environmental conditions where the impacts actually occur. Applying EU-centric characterisation factors to countries with vastly different climates, ecosystems, and farming practices leads to a distorted representation of environmental impact. PEF must ensure that regional environmental conditions are properly accounted for when assessing natural fibre production. The methodology should be revised to incorporate geographically relevant characterisation factors that accurately reflect the impacts where they occur, rather than imposing EU-centric assumptions on non-EU production systems.
54	1; 33-34 and 46-48	Concern: The assumption that the methodology for Ecodesign of Energy-related Products MEErP is a good fit for the textile product category is unproven and highly unlikely to be sound, given the differing drivers of product lifespan. Access link: https://op.europa.eu/en/publication-detail/-/publication/b7650397-32f1-436c-82c4-df39aef297a3/language-en) Context: Whitegoods like dishwashers and washing machines are normally used until worn out, but considerable research shows the great majority of clothing is thrown out before worn out. Clothing is integral to the owner's persona and their preferences change over time. The owner's body size also changes, affecting garment fit and hence lifetime. In combination, these two effects have been shown to dominantly influence clothing lifespan. The fluidity of these lifespan-determining impacts

ID	Section & line	Comment
		means it's not possible to reliably predict lifespan at the design stage of clothing. (Access link: https://clothingresearch.oslomet.no/2022/10/19/review-of-clothing-disposal-reasons/) Moreover, the characteristics of the fibers play an important role in determining the longevity of clothing. Consumers tend to prefer garments with higher moisture regain properties and greater comfort, which influence wear frequency and retention. Studies indicate that fabrics with better moisture management and thermal regulation properties are worn more frequently and retained longer, thereby increasing their effective lifespan. Natural fibers, such as cotton and wool, offer higher moisture absorption and breathability compared to synthetic fibers, enhancing wearer comfort and reducing the need for frequent washing, which can accelerate garment degradation. Additionally, research shows that discomfort from synthetic fabrics, often due to lower moisture absorption and breathability, is a common reason for garment disposal (Clothing Thermophysiological Comfort: A Textile Science Perspective, https://www.mdpi.com/2673-7248/3/4/24). A better alternate: A more robust measure of lifespan will be possible following implementation of the Digital Product Passport (DPP). DPP-derived data from waste collection facilities can report the average lifespan of clothing made by brands and this evidence-based measure can then inform the environmental score for that brand's current clothing (in the same product subcategory). The brand's score would be progressively updated as their newer products came onto the market and gradually made their way to waste collection facilities. Such a system would be: credible and evidence-based; low cost; present no barriers to SME involvement; motivate brands to produce long-lived clothing; and also deliver Green Deal strategies like putting fast fashion out of fashion. In short, this retrospective end-of-life tool would be much more meaningful and effective than attempting to 'guestimate' clothing lifespan at start-of-life - as PEF currently attempts to do.
56	Introduction, ; Methodology,; lines 33 – 34; lines 46 - 48	The assumption that the methodology for the eco-design of energy-related products (MEErP) is suitable for the category of textile products is unproven and, in view of the different factors for the product life cycle, most probably not valid. Access link: https://op.europa.eu/en/publication-detail/-/publication/b7650397-32f1-436c-82c4-df39aef297a3/language-en. White goods such as radios and washing machines are generally used until they are worn out, but research shows that most clothes are thrown away before they are worn out. Clothes are an integral part of the owner's personality, and their preferences change over time. The owner's body size also changes, which affects the fit and therefore the lifespan of the garment. It has been shown that these two effects in combination have a significant influence on the lifespan of clothing. As these lifespan-determining influences are fluid, it is not possible to reliably predict the lifespan of clothing in the design phase. Data derived from the DPP from waste collection points can indicate the average lifespan of garments produced by the brands and this evidence-based measure can then feed into the environmental valuation for that brand's current garments (in the same product sub-category). The value of the brand would be progressively updated as newer products come onto the market and gradually enter waste collection points. Such a system would be credible

ID	Section & line	Comment
		and evidence-based, cost-effective, would not pose barriers to SME participation, would motivate brands to produce durable clothing and would also implement green deal strategies such as the elimination of fast fashion. In short, this retrospective end-of-life tool would be much more meaningful and effective than trying to "estimate" the lifespan of garments at the beginning of their life, as PEF is currently trying to do.
58	Introduction; 33-34	The assumption that the methodology for Ecodesign of Energy-related Products MEErP is useful for the textile product category is not proven and highly unlikely to be sound, given the differing drivers of product lifespan.Clothing will most likely be thrown out before they come to their natural end of live, due to change in fashion, personal taste of the owner, change in body sizes etc. it is thus not possible to reliably predict lifespan at the design stage of clothing. A more robust measure of lifespan will be possible following implementation of the Digital Product Passport.
59	Introduction Methodology; Introduction - 33,34 Methodology - 46-48	The assumption that the MEErP methodology, designed for Ecodesign of Energy-related Products, is suitable for textiles is flawed, particularly for products like […]. Unlike white goods, which are typically used until they wear out, clothing is often discarded due to changing personal preferences or body size, regardless of physical durability. […], known for its exceptional durability and timeless style, is designed to last generations, yet its lifespan is influenced by factors beyond physical wear, such as evolving fashion tastes. These subjective factors cannot be accurately predicted at the design stage, making current lifespan estimations unreliable. A more robust measure would involve using Digital Product Passport (DPP) data to track the actual lifespan of products through waste collection systems. This approach would provide evidence-based environmental scores, reflecting the true longevity of Harris Tweed® garments. Such a system would be credible, low-cost, and supportive of SMEs while encouraging the production of long-lived clothing—key to achieving the EU's goal of putting fast fashion out of fashion. This would be far more effective than attempting to estimate lifespan at the start of a product's life cycle, as PEF currently does, and would ensure that heritage products like Harris Tweed® garments are fairly represented.
60	33-34; 33-34	Introduction, lines 33 – 34; Methodology, lines 46 - 48 A more robust measure of lifespan will be possible following implementation of the Digital Product Passport (DPP). DPP-derived data from waste collection facilities can report the average lifespan of clothing made by brands and this evidence-based measure can then inform the environmental score for that brand's current clothing (in the same product subcategory). The brand's score would be progressively updated as their newer products came onto the market and gradually made their way to waste collection facilities. Such a system would be: credible and evidence-based; low cost; present no barriers to SME involvement; motivate brands to produce long-lived clothing; and also deliver Green Deal strategies like putting fast fashion out of fashion. In short, this retrospective end-of-life tool would be much more meaningful and effective than attempting to 'guestimate' clothing lifespan at start-of-life - as PEF currently attempts to do. Life cycle stages, lines 478 - 518 With fossil fuel-based products benefitting from an environmentally 'free' raw material, and natural fibre products having no such benefit, an equitable comparison is not possible. This makes a massive difference to the PEF score. International standard IS0 14044 specifies that the same system boundary must be used for equitable comparisons.

ID	Section & line	Comment
		PEF must be updated to comply with the ISO 14044 requirement that "the appropriateness of the system boundary shall be considered as part of the interpretation process." Negative environmental impacts, lines 519-638 Recital 32 of the Green Claim Directive states: "As regards foods and agricultural products, biodiversity and nature protection, as well as farming practices, including positive externalities of extensive farming and animal welfare, should, for example, also be integrated before the adoption of the PEFCR". PEF may evolve to measure positive impacts over time, but it cannot provide a level playing field across textiles until then. Unwarranted collateral damage would be done to natural fibre industries - so PEF should not be adopted until it measures the positives. Introduction, 25-29; Aim, lines 36 -44 The problem of overlooking/underweighting the inherent advantages of renewability and biodegradability could be addressed by complementing PEF with a circularity indicator such as the Ellen MacArthur Foundation's Material Circularity Index or WBSCD's Circular Transition Indicator (CTI). This enhancement would also improve ESPR's alignment with delivery of the Circular Economy Action Plan (CEAP). Additionally, PEF must include a plastic waste indicator to deliver the fast fashion strategy and be consistent with EU directives on plastic waste. Using LCA and Circularity Indicators to Measure the Sustainability of Textiles[1] (Access link: https://www.mdpi.com/2071-1050/14/24/16683) Delivering EU Environmental Policy Through Fair Comparisons of Natural and Synthetic Fibre Textiles in PEF (Access link: https://www.makethelabelcount.org/globalassets/make-the-label-count/documents/gd4505-mtlc-pef-whitepaper-final.pdf) Relevant product aspects, lines 2619 – 2631; Physical Durability, lines 2802 - 3011 An Ecodesign for textiles scheme that priorities physical durability test performance, in the absence of evidence that strong physical performance increases lifetime, will significantly bias in favour of clothing made from synthetics.

ID	Section & line	Comment
		Why would the EU implement a design directive that will deliver the opposite to its policy of putting fast fashion out of fashion? Textile fragmentation, lines 594 - 624 Recital 32 should be properly complied with. Microplastics should be accounted for across all life stages, as is the case for all other PEF impact categories. The argument proposed to the Technical Secretariat that accounting for microplastics in other life stages must wait "until the science comes in" is inadequate. Many other aspects of the PEFCRs lack scientific evidence but the Technical Secretariat was consistently encouraged to progress methodology development using 'expert opinion'. Expert opinion may be far from optimal but is still better than entirely ignoring impacts! PEF Guidelines; Lines: 31-35 Characterisation factors in PEF should be amended to ensure impacts are relevant to the regions where the impacts occur.
61	Introduction Methodology; 33-34 46-48	The assumption that the methodology for Ecodesign of Energy-related Products (MEErP) is suitable for textiles lacks substantiation and is unlikely to be appropriate due to fundamental differences in product longevity drivers. https://op.europa.eu/en/publication-detail/-/publication/b7650397-32f1-436c-82c4-df39aef297a3/language-en Unlike household appliances such as dishwashers and washing machines, which are typically used until they cease functioning, extensive research indicates that most clothing is discarded long before reaching the end of its usable life. Clothing choices are deeply personal, influenced by changing fashion preferences and fluctuations in body size, both of which have been shown to be primary determinants of garment lifespan. Given these fluid variables, predicting clothing longevity at the design stage is inherently unreliable. https://clothingresearch.oslomet.no/2022/10/19/review-of-clothing-disposal-reasons/

ID	Section & line	Comment
		A more accurate lifespan assessment could be achieved through the forthcoming Digital Product Passport (DPP). Data gathered from waste collection facilities would provide empirical evidence on the average lifespan of clothing from various brands. This real-world data could then inform the environmental impact score of the brand's current products within the same category. As newer products enter the market and eventually reach disposal points, the brand's score would be dynamically updated. Such an approach would be: • Based on tangible evidence rather than estimations, • Cost-efficient, • Inclusive of small and medium enterprises (SMEs), • An incentive for brands to prioritize longevity in clothing design, • Aligned with Green Deal objectives, such as discouraging fast fashion. This end-of-life data-driven methodology would be far more effective and meaningful than the current approach, which attempts to estimate garment lifespan at the point of production, as done in the PEF.
64	Introduction, 25-29; Aim,; 36 -44	The impact of plastics is being overlooked and the EU strategy to tackle fast fashion is not being implemented as a result. The increasing availability of cheap synthetic clothing has been shown to be a major contributor to fast fashion, yet none of the main environmental impacts of plastics are considered in the PEF assessment of textiles (non-biodegradable, non-renewable, microplastics). NB: Microplastics have not been included as a weighted indicator in the PEF and therefore have no impact on the PEF assessment. The proposed approach of reporting microplastics together with microfibers from natural fibers as "additional information" will not be visible to consumers. The Rise of Life Cycle Assessment and the Fall of Sustainability: Berlin 202030 - Veronica Bates Kassatly (access link: https://www.veronicabateskassatly.com/read/the-rise-of-lifecycle-analysis-and-the-fall-of-sustainability-berlin-202030) The environmental Price of Fast Fashion (access link: https://www.nature.com/articles/s43017-020-0039-9) Critical Review of Product Environmental Footprint (PEF) (2).pdf (access link: https://clothingresearch.oslomet.no/wp-content/uploads/sites/1026/2023/02/Background-paper-on-PEF.pdf)
66	Chapter 1; 41-42	Chapter 8 on Public procurement does not meet the aim to provide scientific or technical basis for future development of the mandatory EU GPP requirements. If the aim cannot be met the JRC should in this study conclude that either additional study or research is needed or the JRC should explain that based on limited data a scientific or technical basis cannot be provided. The introduction to the chapter mentions "the PS will provide the scientific and technical basis for the future development of the possible EU GPP requirements for textile products" (2437-2438). However, the information presented under 8.1 Public procurement in the EU is based solely on incomplete TED data only. These TED data only consist of information on contract

ID	Section & line	Comment
		and award notice for tenders above € 139.000 treshold. In the report this leads to a table of numbers of procurements of several textile items from 2015-2019. In no way this paragraph is providing a meaningful scientific and technical basis for future development of GPP requirements for textile products. For instance no information is available on the textile volumes of the procurements, the environmental impact or the actual uptake and use of GPP criteria in the procurements, mentioned in the table. The conclusion in the paragraph that monitoring public procurement is currently a challenging task is an understatement. Before a scientific and technical assessment of procurement can be made it is needed to start collecting relevant data on for instance volumes of purchased textiles and the use of GPP criteria. Suggestion to either revise the complete chapter by starting a proper investigation into relevant data or mention that based on availability of data it is impossible to provide the scientific and technical basis for future development of possible EU GPP requirements.
67	1; 45-84	After the online workshops organised on December 9 and 10 and the latest documents shared by the Joint Research Centre regarding the second milestone of the preliminary study on apparel textiles, the [...] would like to express its deep concerns about some of the elements included in the various chapters and statements made during the discussions. More specifically, we are particularly concerned about the lack of scientific evidence in the arguments and conclusions included in the report and legislative coherence, especially between the ESPR, Waste Framework Directive, the Textile Labelling Regulation, and the ESPR obligations on unsold goods. The reasoning and decisions made in the report are not sufficiently substantiated, notably regarding the methodology and reasoning behind the selection of the guiding questions for developing the second milestone, as well as the choice of AITEX as the main reference body for conducting the study. The inclusion of substantiated and sufficient scientific evidence is essential, especially at this stage of the process of drafting and developing the eco-design requirements, since the objective of the preliminary study is precisely to provide the necessary context to establish the requirements and ground subsequent discussions on a solid and scientific basis, rooted in evidence-based and well-represented realities of the sector. Additionally, we are concerned about the motivations underlying the conclusions drawn in the various sections. The report raises, on several occasions, well-framed and highly valid arguments, such as the need to consider the differences between various fibre compositions or the functionality of products in discussions on durability. However, these arguments are not reflected in the final conclusions, which take a more political stance rather than being substantiated by the sector's realities, leading to a misalignment between the stated goals and the conclusions drawn. Another example involves acknowledging the sector's reality of different sources of textile waste, but the conclusions on recycled content focus solely on the political decision to include post-consumer waste only. These types of political conclusions are not only troubling due to their lack of substantiation but also risk jeopardising the implementation of feasible requirements that could accelerate sustainability and circularity in the sector. For example, by excluding the consideration of post-industrial and pre-consumer textile waste, the report not only overlooks the reality of the sector where such types of waste exist but also eliminates two fundamental enablers for introducing recycled content at scale within the textile industry.
68	33-34; 46-48	Introduction, lines 33 – 34; Methodology, lines 46 - 48

ID	Section & line	Comment
		A more robust measure of lifespan will be possible following implementation of the Digital Product Passport (DPP). DPP-derived data from waste collection facilities can report the average lifespan of clothing made by brands and this evidence-based measure can then inform the environmental score for that brand's current clothing (in the same product subcategory). The brand's score would be progressively updated as their newer products came onto the market and gradually made their way to waste collection facilities. Such a system would be: credible and evidence-based; low cost; present no barriers to SME involvement; motivate brands to produce long-lived clothing; and also deliver Green Deal strategies like putting fast fashion out of fashion. In short, this retrospective end-of-life tool would be much more meaningful and effective than attempting to 'guestimate' clothing lifespan at start-of-life - as PEF currently attempts to do.
69	1; 55-61	The use of the Methodology for Ecodesign of Energy-related Products (MEErP) may not be entirely appropriate for the assessment of consumer behaviour, which is likely to be different for apparel than for electrical goods. Electrical goods will typically kept until failure whereas the lifespan of apparel is dependent on a number of factors including current trends, perceived value, retention of appearance, emotional attachment and perceived value. However it is noted that the MEErP protocol requires investigation of 'aspects influencing the modelling of environmental impacts and costs of the products in the life-cycle perspective, identifying behaviour not directly quantifiable with conventional standard tests on the products.' This should include an understanding of consumer behaviour with regard tendencies towards retention, repair, gifting and second and purchases of different apparel and textile groups. This data should be incorporated into the DoS metrics to give a 'real-world' basis to the calculation of the expected lifespan of a product type. As noted in the WRAP report, every 5 items repaired, 4 displace a new purchase, a displacement rate of 82.2%, whereas every 5 second hand items bought, 3 displace new purchases, a displacement rate of 64.6% (https://www.wrap.ngo/resources/report/displacement-rates-untangled). Textiles and materials that support the repair and second hand markets should be viewed preferentially and this reflected in any labelling
70	1; 85-117	The [...] and its members have consistently highlighted and emphasised the importance of considering the realities of the sector and technical aspects of the industry on multiple occasions. However, it appears that some of the points we have raised have not been fully reflected in the second milestone. Many of the questions raised during the workshop focused on the possibility of the industry sharing more data and evidence. However, it remains unclear how this sensitive information will be utilised or integrated into the process, raising concerns as well about the confidentiality of the data. Finally, the references to the base cases do not adequately reflect the sector's current realities, nor product types with recycled content that already exist. Instead, they often rely on outdated assumptions or simplistic considerations that fail to account for the complexity of global value chains or the efforts already undertaken to improve the sustainability and circularity of textile production. We call on the JRC team and the European Commission to enhance their evidence-based scientific support for European policymaking by:

ID	Section & line	Comment
		• Utilising robust and diverse references • Building upon established industry standards and practices • Engaging with relevant textile organisations and experts to gather additional data. This approach will ensure that policies are well-informed and reflective of the industry's realities. In the spirit of collaboration and with the aim of supporting the continued development of the preliminary study and the establishment of ecodesign requirements for textiles, we will continue providing additional technical input on the various product aspect requirements.

Annex 3. Comments on definitions

Table 26. Comments on definitions

ID	Section & line	Comment
71	Definitons;NA	Table 2, last item on "generation of any substance". In our view, any object is expected to become waste at some point. Especially to tackle the problem of fast fashion, we sugesst to additionalys specificy "a time dimension" in the definition. Eg. expected generation of waste within 10 years. This is an important point and explains why longevity of products is essential for sustainable products. Furthermore: Due to the high importance regarding the future development of production technologies, we suggest that the JRCs provides a clear defintion of man-made and natural fibres. Please insert this definitions in chapter 2.
72	Definition;Post-industrial textile waste	Acrylic fiber production involves many steps which are mostly considered chemical reactions. While the final output is in fiber form , the initial processing stages are chemical processes which also create various types of post industrial waste. Recycling of these waste types which are mostly in liquid form should also be considered as recycling. We strongly suggest to widen the scope of post industrial waste to include the waste types beyond fiber form such as waste occuring during chemical polymerization process such as polymer waste, dope waste etc.
73	Chapter 1;149-203	It is unclear in the current definitions if leather, fake leather, fur or fake fur are included in the scope of this PS. It would be prefered to learn from the other legislation like Textile Labeling Regulation or the Waste Collection and Sorting (EPR) in memberstates. To avoid misunderstanding, please specifiy if these products are included or excluded from the scope. In table 44 for example denim trousers are mentioned, what about (fake) leather pants.
74	2;152	There is a need to differentiate natural from synthetic microfibres as they have different behaviour in the environment and different associated environmental impacts, so we deem it useful to add here a definition of what is a microplastic in the textiles sector. This is especially relevant since ESPR has been flagged by the Commission as one of the best channels to address microplastic emissions from the textiles sector.

ID	Section & line	Comment
		On the respective biodegradability of cotton versus polyester fibres, see Zambrano at al., 2019 Microfibers generated from the laundering of cotton, rayon and polyester based fabrics and their aquatic biodegradation, on the fate of microfibers in the environment.
75	Chapter 2;161	How does this definition relate to the definition of 'producer of textile, textile-related and footwear products listed in Annex IVc' in artikel 4b of the Waste Framework Directive, as proposed by the Commission (see also chapters 4.1.2 and 4.2 of this report)? How do they comply with each other (similarities, differences, ambiguities)?
76	Chapter 2;165	Please clearify the definition. Does this also include comfort or other non-strict parameters? What does comfort mean in this sense, this also needs to be defined. Or excluded subjective elements from the apparel definition. Is this including accessoiries? Pls align with WFD. Might be interesting to start a seperate document on general definitions for all EU work on textiles. (TLR, WFD, EPR, ESPR)
77	2;170-179	We agree with the amended definition of technical textiles, including referring to 'inhering functionality'.
78	Chapter 2;170-179	The definition of technical textile seems to have a stronger focus on apparel, while in table 3 (line 248) the focus of technical textiles seems to be on cleaning products and hygiene products and not on apparel. Align definition and table 3 by mentioning that under technical textiles a distinction can be made for technical textile apparel and other technical textile products (like cleaning and hygiene products, and technical home/interior textiles). Examples must confirm the tekst, not cause confusion.
79	2 definitions;170 and 248	The definition technical textile suggests that also "workwear" (professional textiles) that bring a functional answer eg. fire retardancy, conductivity etc... falls under the scope of this document and is then called "technical textile apparel. Basically this would mean that "workwear" is similar to "consumer" textile apparel and thus have the follow the same requirements..Although professional textiles are designed for longevity, industrial care and repair. Which is not the same as consumer textiles. In table 3 chapter "textile apparel" mentions "protecting the human body". As per EU legislation 2016/425 main definition "'personal protective equipment' (PPE) means: (a) equipment designed and manufactured to be worn or held by a person for protection against one or more risks to that person's health or safety; Therefore the definitions and categories in this document both excludes and includes PPE which is conflicting.. Once textile apparel is claiming protection against something... you defacto fall under PPE legislation. In table 3 chapter "technical textiles" is describing absorbent hygiene products and cleaning wipes. This is confusing and not in line with the main definitions in the beginning of the document.
81	2;180- 182	We propose the following specification: Home and interior textiles include all textile end-products used inside the home for practical, protective and decorative purposes. These types of textile end-products can be both functional and decorative and include: - Window coverings (such as curtains, net curtains, blinds and shades)

ID	Section & line	Comment
		- Furniture upholstery (such as upholstery for sofas, chairs, cushions and poufs) - Floor coverings (such as carpets, rugs and mats) - Bedding (such as sheets, duvet covers, pillowcases and blankets) - Batch textiles (such as towers, bathrobes, flannels and bathmats) - Kitchen textiles (such as tablecloths, placemats, tea towels and over gloves) - Decorative textile products (such as wall hangings, table runners, decorative cushions and plaids). These products contribute to the atmosphere, style and functionality of a home.
82	Chapter 2;180, 184, 186	Please align with to the soon to be revised legislation WFD, clarify if differences are needed any why
84	2;187	We fully acknowledge the definition of 'waste' as regulated per the Waste Framework Directive. However, we find it important to highlight that the phrase 'discards or intends to discard' leaves significant room for misinterpretation and potential misuse of the definition. However, from the perspective of incentivising circular economy we would also recommend alignment with the ISO definition of waste, which defines waste from the perspective of potentially usable material in another form rather than intent to discard the material
85	2;189	We recommend strongly on relying on ISO standards when it comes to definitions of textile waste, post-industrial, pre-consumer, and post-consumer with EN/ISO standards - ISO 5157:2023 Textiles - Environmental Aspects - Vocabulary, rather than the Huygens et al, 2023 paper referenced as the source for the definition of post-industrial textile waste), as these are the most widely referenced applied in the industry. This alignment ensures consistency with the broader suite of EN/ISO standards and practises in the industry and helps minimize confusion in an already a highly complex landscape. This comment applies to the full section of Waste generation (9.2.4) and recyclability & recycled content (9.2.5)
86	2 Definitions - Table 2. Definition of product aspects;207	The definition of 'energy efficiency' is the same as the one provided in Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, which amends Directives 2009/125/EC and 2010/30/EU and repeals Directives 2004/8/EC and 2006/32/EC. Therefore, the indicated source should be this Directive.
87	2 Definitions - Table 2. Definition of product aspects;207	The definitions of 'Energy use and energy efficiency,' 'Water use and water efficiency,' and 'Resource use and resource efficiency' should be aligned to ensure consistency. Suggestion: - Water use: Use of water in all lifecycle stages of a product; - Resource use: Use of raw materials, mainly abiotic (minerals, metals, fossil fuels), in all lifecycle stages of a product. It can also include... - Resource efficiency: The ratio of output of performance, service, goods to input of resources.
88	2 Definitions - Table 2. Definition of product aspects;207	Resource use: The phrase 'Water and energy are not considered within resources under the scope of ESPR' requires clarification, as water and energy remain resources even if addressed in separate chapters. Annex I, point (g) of the ESPR refers to water and energy as resources while distinguishing them from other resources.
89	2 Definitions - Table 2. Definition of product aspects;207	ISO 14021 (Environmental labels and declarations – Self-declared environmental claims (Type II environmental labelling)) was adopted by CEN and should therefore be referenced as EN ISO 14021
91	Chapter 2;208	Recyling terminology: Plese align with WFD, ISO could be outdated or not in line with the definitions set in the WFD, clarify if differences are needed any why.

Annex 4. Comments on scope

Table 27. Comments on scope

ID	Section & line	Comment
92	3; 209 to 638	Scope: ESPR: Setting the right priorities for textiles While the objectives pursued with the ESPR are undoubtedly important and worthy of support, the way to achieve them, as currently proposed in the JRC Preparatory Study, seems to us to be only partially adequate and effective. To address the root causes of the many negative environmental and social impacts associated with the textile industry, it is essential to tackle the massive overproduction and overconsumption of textile products (especially clothing), and to disincentivise the prevalent 'fast fashion' business model. (1) Extending the lifespan of clothes and building a more circular textile value chain are undoubtedly desirable goals, but as long as there is a constant influx of cheap new products, there is no incentive to use up textile products or to repair them, and there is no demand for recycled content. Circular practices require a reduction in the volume of goods to encourage them, they are not compatible with the current system of oversupply. To discourage overproduction and overconsumption it is also crucial that the costs for environmental, climate and human health damages are no longer socialized but borne by those who cause them. It is therefore important to pursue an approach, that combats the patterns of overproduction and overconsumption at a systemic level, that has a greater positive impact and would result in rapid improvements, for example, by removing the most harmful products from the market. To make sure that legislative measures are effective in reducing the negative environmental impact of the textile industry it is also necessary to properly assess them. Textile-to-textile recycling, for example, is widely seen as an important part of the solution for reducing the negative environmental impact of textiles. However, a recent study by researchers of the Swedish Environmental Institute that explores the climate-impact consequences of increasing textile-to-textile recycling from 1% of disposed textiles in the EU today, to 26% in 2035, comes to the following conclusion: "The average climate-impact reduction is estimated to be about 1.2 million t CO2 eq. per year. This is an estimated 1.3% of the climate impact of production, use, and end-of-life of textile products purchased in the EU – a relatively small reduction in relation to the needed reduction in the carbon footprint of textile consumption." (2) Fortunately, the ESPR, despite its emphasis on circularity, and despite the fact that textiles in many respects are not comparable to e.g. electronic devices, allows for a more systemic and more effective approach, if highest priority is placed on the following requirement categories: - Substances of concern: The ESPR must implement an ambitious, hazard-based approach to ban or demand the substitution of substances of concern, including microplastics, in textile products and in the entire textile value chain. It must also include any chemicals used during the fibre production phase and apply the precautionary principle, especially regarding synthetic textiles and microplastics. - Waste generation: By defining the allowed content of textile waste in terms of its impact and its biodegradability, by charging high eco-modulated fees for non-compliance and eventually prohibiting any textile products that do not meet these requirements, the ESPR could be much more effective in ensuring the use of environmentally friendly and biodegradable fibres, than by defining rather complicated ecodesign product parameters while not adequately tackling the massive waste problem.

ID	Section & line	Comment
		- Environmental impact: The environmental impact of a textile product is undoubtedly important. Any methodology used for this assessment, must, however, be defined by an independent body and based on broad public consultation. The PEFCR as they are currently being developed are ill-suited in many respects. References: (1) Materials Market Report 2024 - Textile Exchange: In 2023 global fibre production has more than doubled since 2000 and increased by 7% compared to 2022. The market share of virgin fossil-based synthetics continued to grow and increased from 67m tonnes in 2022 to 75m tonnes in 2023 with polyester accounting for 57% of the total fibre production. Given the (too) low prices, unhindered production of virgin synthetics and limitations in recycling technologies and capacities, the share of recycled polyester decreased from 13.6% to 12.5% (of which 98% are not coming from pre- and post-consumer recycled textiles but from plastic bottles). (2) Sandin, G., Lidfeldt, M., Nellström, M. (2023): Does large-scale textile recycling in Europe reduce climate impact?
94	3; 210-247	How is the use phase defined in the life cycle of textiles used by industrial laundry service providers? Does it include washing, drying, and distribution, or does it begin and end when customers receive and return the textiles? Considering that each article may undergo up to 300 washing cycles including drying, how is this accounted for? If these service providers recycle their own discarded textiles into new products, are they responsible for implementing a Digital Product Passport for environmental performance criteria? Or does the original passport from the first production cycle remain valid?
95	3.1; 222	What is meant by artificial fiber, desire definition to understand the difference
96	3.1 (page 15); 222	Could you kindly clarify the distinction between man-made and artificial fibers? We understand that some older ISO standards classify fibers in this manner; however, we have not found an explanation based on natural science or a clear underlying rationale. We would appreciate any insights you can provide to help us better understand this classification.
97	Chapter 4; 237-243	It is not clear if leather is part of the scope and what is meant with technical textile. The scope is different than the definition (line 170) and technical textile apparel does not seem to be part of technical textile, while in the definition it is a subcategory.
98	3; 248	Geotextiles are an important source of microplastics in the open environment and seem to say to qualify for that “technical textiles” category but I see the fabric needs to contain 80% textile fibres which is probably not the case for all geotextiles. Where does that 80% limitation come from and is there any possibility to secure the inclusion on geotextiles in the present study? We also need more details on what constitutes the “technical textiles” category as it might potentially include very relevant synthetic product categories but also in particular these “geotextiles” or synthetic membranes used in agriculture or constructions. Can we include a list of what is considered under this product category?
99	Chapter 3; 248	Replace being nexked with nudity, Being necked is unclear what this means.
100	3.1.1; 301	The possibility of remanufacturing. We agree remanufacturing is an important aspect to adress in a circular economy. In Sweden there are ongoing remanufacturing projects and inititives both within the industry and the academia. We share some links here. But there are more avaliable if relevant. A reflection: textileproducts and textile waste suitable for remanufacturing will occur in different stages of the textile value chain even in the waste management. Therefore it is important to specify that remanufacturing also is a recycling method. Se comment row 19 below.

ID	Section & line	Comment
		A study was commissioned by the Swedish Chemicals Agency and conducted by Ramboll. The study is a regulatory mapping for remanufacturing of products under EU law with focus on the legal framework in a Circular Economy context: https://www.kemi.se/download/18.6c26dc74178e406dc61ebc/1619702793595/PM-6-21-Regulatory-mapping-for-remanufacturing-of-products-under-EU-law.pdf Exampels focusing on remanufacturing: 1. Knowledge-based garment modularization system for upscaling remanufacturing in circular textile production REMAKE - University of Borås https://www.hb.se/en/research/research-portal/projects/remake/ 2. "The purpose of the Circular Business Toolkit is to provide tools for companies to establish and implement a circular strategy that links business model, product design and choice of materials in order to increase resource efficiency, reduce environmental impact and preserve biodiversity. The Circular Business Toolkit consists of three components: • a three-step design process to create a circular strategy and guidelines for product design • articles with good examples to inspire and deepen understanding • a digital tool to start working with the issues by analysing the existing range and finding possible ways forward The material is based on results and knowledge from projects within Science Park Borås, Among other things, Re:Textile, which explored remanufacturing, servitization and remake in textiles. https://issuu.com/hogskolaniboras/docs/circularbusinesstoolkit_final 3. Business case: textile waste are remanufactured into new working garments: https://www.nationalmuseum.se/press#/pressreleases/vaardskjortor-faar-nytt-liv-som-designade-arbetsklaeder-paa-nationalmuseum-3361727
101	Chapter 3; 306	Please explain why these six aspects are the most important? What is that based upon? We miss some relevant aspects like environmental impact and as part of this also microplastics. We can't believe that these factors (like environtmental impact) are not mentioned in literature or are not part of the six 'most important' aspects. What is the

ID	Section & line	Comment
		criteria to be included as 'most important' product aspect. It is very unclear how this selection has been made. See for example this report: https://www.rijksoverheid.nl/documenten/rapporten/2023/09/26/bijlage-eindrapport-onderzoek-designeisen-textiel We have developed an internal tool to see 'what is sustainable'? https://www.afvalcirculair.nl/publish/pages/236564/ce_delft_230199_sustainable_textiles_a_tool_for_policy_makers_def.pdf
102	3.1.1; 329	Further studies and legislation that argue for circular input including the use of bio-based, especially renewable wood-based, textile fibres: As the consumption of the textile demand is increasing, the utilization of biobased fibres becomes even more important. As the recently published Clean Industrial Deal states "To move away from fossil materials, it is vital to mandate the use of new raw material sources like recycled and bio-based materials to substitute, for example, virgin fossil materials in plastics. ----The Commission will also propose a Bioeconomy Strategy, to improve resource efficiency and to tap the significant growth potential of bio-based materials substituting fossil-based materials, and related industries." As the Clean Industrial Deal envions to align its priorities with the other Comission initiatives, such as upcoming revision of the Bioeconomy Strategy, it is important to also promote the uptake of circular input in the delegated acts under ESPR for various product groups. Even Communication on Biotechnology and Biomanufacturing highlights that bio-based content requirements in specific product categories and in public procurement could be established through the delegated acts of Ecodesign for Sustainable Products Regulation. For textiles in particular, the JRC4 highlighted the opportunities that bio-based textiles present in their policy brief: "Bio-based textiles can be made of natural, semi-synthetic and synthetic fibres. They can help reducing the use of virgin fossil-based synthetic materials, along with other strategies such as increasing textile-to-textile recycling and limiting overproduction. This is challenging, as fossil-based synthetic textile fibre production has grown significantly, reaching 67 % of the global market in 2023." Sustainable grown, renewable material should be considered circular input, similarly with recycled content. New virgin material is required to maintain recycling loops to compensate the decreased strength and length of the textile fibres. Virgin renewable raw materials can be supplied to loops according to principles of circular economy (CE), in a regenerative way. There are several strategies, communications, standards and ESPR considerations highlighting the need for renewable bio-based content: In addition to 1) the Clean Industrial Deal 2) the Bioeconomy Strategy, 3) the Communication on biotechnology and biomanufacturing and 4) the JRC Policy Brief on Biobased textiles, renewable raw materials are recognised as circular input by 5) the World Business Council for Sustainable Development and its circular transition indicators. Besides, core circularity indicators defined in 6) ISO 59020 (2024) Circular economy Measuring and assessing circularity performance, contain renewable content equal to recycled and reused content of an inflow. By including considerations about the renewability of the raw materials used to manufacture products among the essential requirements in the delegated acts of textiles, the

ID	Section & line	Comment
		Commission has the opportunity follow-up on their promise and to support the development of the bio-based products. The milestone studies of the preparatory study need a stronger consideration of existing bio-based solutions for textiles and the opportunities they present.
103	3.1.1; 331	The lifespan of a garment rarely has to do with the clothes breaking, but is more about the fact that we live in a throwaway society and now also ultra fast fashion (and here there is a lot of PET that has a long shelf life)
104	3.1.1; 343	Increasing circularity should include the uptake of circular input, including recycled AND virgin renewable input, instead of only considering recyclable content and recyclability.
109	3.1.1; 352-353	In this assessment, polyester will always have a better eco-design performance. And clothes in 100% polyester are not the future. We need viscose and cotton too.
110	3.1.1 (page 18); 352-353	We fully agree with this statement. However, we do not see it accurately reflected in Table 44. A pure polyester T-shirt serves a fundamentally different function compared to a cotton or viscose T-shirt, and this distinction should be taken into account.
111	Chapter 3; 386	Pls clarify what material is in scope of PS. Is this including (fake)leather, (fake) fur? Is not in scope TLR, but mentioned in this PS several times. As this material has environmental impact in different stages of the supply chain, please include.
112	3.1.3; 387	[...] welcomes the unchanged scope of the PS which only focuses on textile apparel and therefore excludes fur and leather apparel.
113	3.2; 410	A scope focussing on products homogeneous in terms of function, material composition, chemical composition and technologies used, is the right choice. Mixing materials increases the complexity and risks to be appropriate. only to a part of the product category, while for the other it has adverse consequences.
114	Chapter 4; 410-477	Footwear, while mentioned in chapter 2 on definitions, in Table 3 on function and intended use, in Table 4 on economic indicators, and table 5 on literature, is not mentioned in the proposed scope (neither as a product included in the scope, nor as a product excluded from the scope). There is no reasoning behind this omission of footwear from the scoping. Why?
117	3.2. Proposed scope; 411-414	We follow the explanation that "all products in the scope pf the PS should be sufficiently homogeneous in terms of function, material composition, chemical composition and technologies used. This homogeneity should allow the development of common ecodesign require-ments [...] tailoring them to product subgroups as appropriate." This results in an exclusion of the subgroup footwear. We support that footwear should be handled in another Preparatory Study. According to the Working Plan (Ecodesign and Energy Labelling Forum. Discussion pa-per on the 1st ESPR and Energy Labelling Working Plan) footwear is excluded. Therefore, we want to clarify that we think it is really important to have ecodesign requirements for footwear. Thus, we suggest to include footwear in the first Working Plan of the EC. As table 4 (p. 19, line 372) showed footwear is an economically relevant product category and the environmentally impacts are also very high (similar to apparel textiles) (see table 6, p. 20, line 400).
118	3.2; 411	[...] welcomes this approach to the scope of the PS.
123	3.2.1; 415-4378	The design, required quality level and use of workwear is very different from consumer apparel. Workwear is designed for professional use and requires meticulous work with quality. As the proposed ecodesign requirements currently focus a lot on technical durability of apparel, it is apparent, that this will not serve the workwear industry and will not make an impact to the minimum quality levels for workwear. Also, consumer behaviour and repair/maintenance of workwear is completely different than for consumer apparel. For these reasons, we advocate for the to exclusion of workwear apparel from the scope. Rationale from a large workwear company in Finland: It is difficult to define exact quality or durability requirements for work clothes by product type, because the same product types can be used in a wide variety of work

ID	Section & line	Comment
		environments. The pants can be used in very light office work or in demanding tasks in the assembly industry, when the strength of the fabric requires a completely different class of durability. In addition, the product may be washed at a much more frequent pace, depending on the purpose of use and the customer's industry. Depending on how dirty it is or to guarantee certain hygiene, work clothes can be washed, for example, daily. Limit values should be applied more precisely taking into account the intended use of the product and not just the product type. This is complicated due to the reason that customers can use the same product in very different work environments. It is difficult to divide work clothes according to certain uses, because the same, for example, white trousers can be used both in the food industry and by healthcare personnel. The proposed test methods now seem to be based on quality determination of fashion products and do not correspond to the test methods of industrial washing generally required for work clothes, for example. The more precise durability requirements planned now, e.g. tensile strength, do not correspond to the levels required for work clothes. The level is very low to be suitable for comparing the quality/life cycle of work clothes used in, for example, industrial work or other work environments that require frequent use and high durability. If these classifications are used to define the quality of the products, no comparable information is created for the consumer. A visual assessment of a workwear product quality cannot be based on only 3-5 washes because it does not correspond at all to the typical life cycle of work clothes of 2-3 years. It does not offer sufficiently reliable data to the end consumer/customer to evaluate real lifetime /quality of the products. These testing methods related to the durability and quality of the product do not produce additional information that would help the buyer of work clothes to make better purchasing decisions from an environmental point of view. In order for this to happen, work clothes would have to have their own testing methods and limit values, and they should be applied more precisely, taking into account the intended use of the product, not just the product type. Despite this, it is very difficult to define individual quality requirements since customers may use the same product in very different work environments, e.g. a regular t-shirt and with very general information in digital product passport it will be very difficult to compare or evaluate meaningful data. Also leaving certain workwear outside the scope (HACCP or GMB, cleanroom, EPA) creates lot of difficulties for the companies to manage data. Typically larger customer needs some garment that need to comply with above mentioned legistlation but some garments for other employees might not need to comply with those. From customer/user perspective it might be also difficult o understand why for garments for EPA area digital passport is not available but for other garments meant for other employees in same company, additional data is available.
124	3.2.1; 422-425	Nordic Ecolabelling welcomes the development of the Product Environmental Footprint Category Rules (PEFCR) methodology as a step towards greater standardisation and transparency in assessing environmental impacts. However, the practical application of the PEF in product-specific legislation must be carefully considered to ensure it effectively supports sustainable development. Nordic Ecolabelling se the following challenges with PEF: 1. Holistic perspective: PEF lacks comprehensive coverage of critical aspects like biodiversity, circular economy and microplastics. This causes a risk for burden-shifting and overlooking key impacts. 2. Methodological issues: Frequent updates are needed to align with evolving knowledge and regulations. Current weighting factors, that help prioritise certain elements over others by giving them more "weight" in the overall result, risk subjectivity and limit actionable insights. Weighting factors can be outdated and reduce the tool's relevance. 3. Reliance on average data: PEF's dependence on global average data creates several issues. It often fails to capture regional variations and specific production methods, leading to a misrepresentation of environmental impacts. Additionally, large companies with extensive datasets may strategically use average data to improve their scores, masking actual environmental impacts. While primary data would provide a more accurate assessment, it can be difficult to obtain, particularly for small and medium-sized enterprises or products with complex supply chains. This undermines fairness and transparency. 4. Functional specificity: PEF struggles to account for nuanced product functions, particularly in products with very large variability, like in textiles. Here the lifespan and usability vary significantly and does not reflect the actual service life or function of the textile product. For example: wool fibres have unique properties that allow the fibres

ID	Section & line	Comment
		to be aired instead of washed which minimises the need of washing. The standardised approach may fail to capture such nuances in different textiles, potentially underestimating their actual environmental benefits. Nordic Ecolabelling recommends adopting PEF cautiously, focusing on product categories where products are largely 1-1 comparable. If PEF is to be used for comparison of products, then even higher demands on the data input, scope, and weighting must be in place, in order to ensure fair and correct handling of different producers. Please see more details in our PEF Position paper attached. Nordic Ecolabelling recommends beginning with data collection to enhance industry transparency. The data must be available free of charge. For complex products, such as textiles and furniture, we suggest product-specific and process-specific data.
125	3.2.1 Products included in the scope; Line 426 ff. (table 7), Section 7.3; 426 ff.	In the slides of the Workshop-Day 1 on Task 4, in question 4 of the Q&A on the product aspect of durability, the JRC points out that no definitions of product groups were proposed during the first consultation. Therefore, we would like to reiterate here our previously proposed product categories. The importance of a uniformly defined product categorisation also becomes clear in other questions of the JRC. Within a product structure, in addition to the product type, the use of materials and the fabric structure (predominantly knitted, woven) must also be considered, at least to a certain extent, so that product-specific and applicable requirements can be defined. This situation is also reflected in connection with the revision of the EU Ecolabel (Section 7.3). The criteria established to date for the EU Ecolabel do not consider the final function of the product. Ecodesign requirements, especially for product aspects such as durability and recycled content, must consider the function and use of the textile product due to the relativity for different levels of use. The product categories presented in Table 6 are not appropriate with regards to setting ecodesign requirements e.g. to defining average values for durability. The "ID 05 Pants and shorts" category, for example, includes jeans, fashion fabric trousers and functional outdoor trousers. All of these pants are apparel textiles but have different product fabric structures and finishes. Therefore, different requirements must be set for the product aspects (espe-cially for durability). Besides, we see the need to basically distinguish between functional products, e.g. outdoor products, with specific material compositions and finishes, and fashion products. Our proposal for the definition of product categories is therefore as follows (published full paper from German Environment Agency with comprehensive explanation will be available under: Documents at https://www.umweltbundesamt.de/themen/wirtschaft-konsum/produkte/oekodesign/oekodesign-richtlinie#undefined): 1. Superordinate application categories: Fashion (non-functional) clothing, Functional clothing, Underwear, Fashion/Functional clothing and Underwear for babies/children. 2. Subcategories: Here, a distinction is made between knitted/crocheted and not knit-ted/crocheted. These designations have been taken from the descriptions of the Harmonized System (HS) of the World Customs Organization (https://www.wcoomd.org/en/topics/nomenclature/overview/what-is-the-harmonized-system.aspx) and are intended to ensure recognisability: Upper body knitted/chrocheted, Upper body not knitted/crocheted, Lower body knitted/crocheted, Lower body not knitted/crocheted, on top garments knitted/crocheted, on top garments not knitted/crocheted.

ID	Section & line	Comment
		3. Product categories system: The first four digits of the HS nomenclature are assigned to the subcategories. It should be noted that the HS codes cover a wide variety of products that do not all belong to the same product type in the proposed categories. Therefore, the HS codes can occur more than once within the structure, but the allo-cation to application categories (1.) and subcategories (2.) allows a specific assignment to be made. 4. Material groups: In order to incorporate the different material uses for appropriate requirements into the product categories and the differentiation between mono- and multi-material, each subcategory (2.) is divided into use of natural fibre (100% or >50%), man-made fibre (100% or >50%) or natural 50%/man-made fibre 50% (in total five material groups). This procedure is similar to the product categories within the study, but takes the textile technological perspective into account in order to be able to set realistic average requirements. In addition, this product category scheme re-quires only minor additions from economic operators for a later integration, as it was developed based on the previous data queries for customs tariff numbers. This struc-ture allows the product categories to be flexibly adapted to the scope during the de-velopment of the product requirements. The product groups and definitions have been specifically constructed considering the different requirements for product groups (based on the different ESPR product as-pects) so that they can be applied to all product aspects. Among other things, this facilitates the bureaucratic effort that would be involved if all product aspects were sub-ject to different product category structures. As part of this structure and methodolo-gy, the durability requirements for different products can also be defined in a structured manner.
127	3.2.1; 428-434	Sportswear textiles should not be mixed with protective gear/accessories as helmets, mouthguards, elbow or knee pads, gloves, masks, etc. If sportswear offers specific protection, these could be categorized under PPE (and then also fall outside the scope). Sportswear can be 'technical' in the sense of 'wicking/fast drying', or waterproof, layered, stretching, padded, etc., but this is still sportswear in the same category of products as leisurewear. Sportswear is 'not technical' in this sense to make a distinction into a separate category. Only when sportswear would offer a specific level of 'protection' to the user, it could be named 'technical', but, in that case, it can also be seen as PPE (most probably a PPE category I (which protects against a 'low' risk and for which the producer can make a self-evaluation and apply the CE-marking without the need for a 3rd party to evaluate and confirm). This means that there are 2 categories: 1. PPE (technical, protective sportswear = PPE) 2. Sportswear without technical characteristics (leisurewear, 'normal' sportswear)
128	3.2.1; 428-437	We propose to explicitly exclude from the scope the workwear that is subject to specific certification (e.g. CE-marking) instead of focusing on technical parameters and values. Usually, this workwear has some protective function and would fall within PPE.

ID	Section & line	Comment
131	Chapter 4; 438-439	If after reassessment in task 6 workwear will possibly be excluded from the scope, what will this mean for chapter 8 public procurement and GPP criteria? Procurement relates for a large part to workwear and also to (technical) household textiles (such as towels, bedlinen, table clothes for f.i. hotels and hospitals). We would like to see that workwear & sportswear are kept included in the scope.
132	3.2.2; 446-448	Apparel containing Li-Ion batteries (e.g. to produce sound or light) should not be excluded from the scope when they have the same functions as other textile apparels (table 3). In such cases, the batteries are only incorporated to make the apparel more attractive (e.g. for children) and the only difference to other apparel is the incorporation of a battery. Their inclusion in the scope of the PS is important to enable ecodesign criteria banning the incorporation of batteries in textile apparel. Apparel containing batteries will be collected together with other type of apparel and waste management companies are currently facing strongly increased fire incidents caused by lithium batteries in waste collection, sorting or recycling plants where they are not expected. This in causing enormous economic damage to waste management plants due to the fires but also issues with insurance companies no longer wanting to insure plants. Big investments in textile recycling infrastructure are needed and such risk must be limited as much as possible to not jeopardise the needed capacity building. Therefore, batteries integrated in apparel should be banned as soon as possible through ecodesign criteria.
133	3.2.2. Products excluded from the scope; 449	The 1st and 2nd milestone: -only address ESPR, EU Ecolabel and Greenwashing -as per the scope PPE is excluded, while the 1st milestone is referring to a specific study for PPE Question 1: is it still the intention of a specific study? if so, what is the timeframe ? Question 2: is this PPE exclusion and specific study also valid for EPR ? Question 3: is it also the intention to apply PEFcr on all types of PPE including also complex PPE ? Question 4: as per the product specific restrictions of PPE clothing (professional textiles) vs.general clothing (consumer textiles), … (contamination, min % recycled content vs. durable protective requirements & comfort vs. longevity, homogenic composition vs. recyclability, …) is it the intention to come with a separate, specific Delegated Act for PPE clothing?
134	3.2.2; 453	I would like to highlight a discrepancy between Textile-Prep-Study_2nd-Milestone_20241217.pdf and Answers_Comments_1st_Milestone_20241216.pdf , when it comes to the product excluded from the scope and particulary “disguise costumes” : • The Answers_Comments_1st_Milestone_20241216.pdf indicates that “(Toy) disguise costumes” are excluded from these works.

ID	Section & line	Comment
		My understanding is the term “toy” being into brackets "(Toy)" means that the exclusion applies to all disguise costumes whatever they are “toy disguise costumes” covered by the 2009/48/EC directive or “disguise costumes” not covered by the 2009/48/EC directive. This approach makes sense as disguise costumes, whatever they are toys or not, are not intended to protect the human body from the outer environment, as the chosen definition of textiles apparel suggests. • The Textile-Prep-Study_2nd-Milestone_20241217.pdf only excludes toys covered by the 2009/48/EC directive and do not take into account the other category of disguise costumes which are not toys according to the 2009/48/EC directive but which are designed in the same way (only the size is different) So, I would like to propose you to modify the “3.2.2 Products excluded from the scope”, by adding a new bullet point thereafter the one about toy, such as : • “[….] • textile apparel identified as toys in accordance with the Directive 2009/48/EC (37). • disguise costume which are not covered by the 2009/48/EC Directive” I really thank you for the attention you will pay to this request. Best regards
135	3.2.2; 462	[…] understands that the PS will impact intermediate textile products but seeks clarification on how it will affect non-textile intermediate products, such as fur or leather components on textile apparel—for example, collars or trims that constitute less than 20% of the garment.
136	Scope; 464; 564; 616ff	Related to "customised textile apparel and upcycled textile apparel": we question, what will happen to the DPP information, if a consumer "upcycles or dyes" the apparel and afterwards this information is not available to the recycling plant when the t-shirt e.g gets waste? line: 564 Format issue: Missing line break

ID	Section & line	Comment
		line 616ff:The consequences from synthetic and natural fibre fragmentation is very interesting topic. However, we suggest, that the JRCs renames the heading from "Pollution originated from textile fragmentation" to "Excurs: potential pollution originated from textile fragmentation" due to still ongoing research and missing a common understanding of the consequences.
137	Chapter 3; 466-477	We claim it is essential to keep bed-bath-kitchen within the scope of textiles as the sustainability issues on product level are the same as apparel. Also apparel and bed-bath-kitchen textiles are being collected in the same bins an will follow same stept in re-use and recycling. In this perspective it makes sense to add bed-bath-kitchen textiles in the scope of this study.
138	Chapter 4; 466-477 & 570-582	The reasons for excluding home/interior textile products from the scope are poor and not valid. I can understand the reasons for excluding textile cleaning and hygiene products, but these do not apply to bed linen and towels etc. Esp. in later chapters on issues like end of life, collection, recycling opportunities are often far better for home textiles than apparel and could ignite innovation and new technologies for the complete textile value chain. Here a problem with the scope appears. The text refers to literature like Huygens (2023). In the Huygens report textile waste includes footwear, household and technical textile. If the scope is only apparel, the EU generated much less than 12.6 Mt of textile waste within the scope. See figure 4 on page 10 of the Huygens report which explains that only about 48% of 10.9 MT of post-consumer fraction (=5.8 Mt, much less than 12.6 mT) of textile waste is apparel (and this is still including footwear, so textile in the scope is still less than 5.8 Mt!). I rest my case: why not at least include home textiles in the scope? Also later on in the report it is not certain what the JRC is refering to when it mentions information from literature: figures on textiles within or outside of the scope. As it is now I cannot see the scientific basis (basic data are not correctly refered to), which is the aim of the prepatory study. Use the figures from Huygens and other literature for textile apparel within the scope only to be consistent with other information, or rethink and change the scope.
139	3.2.2; 468-470	We appreciate the level of evaluation which the JRC has put into the development of the Preliminary Study for Textiles. Nevertheless, we would like to address the importance of recognising other textile product categories for the fulfilment of the recycled content requirements, namely home textiles, bed linen, towels. Due to their availability and existing infrastructure, these products could facilitate the scaling of the recycling industry and facilitate reaching recycled content targets. Moreover, including them in the broader scope of the JRC's work on ecodesign requirements would be in line with other EU legislation and technical analyses, such as for instance the End-of-Waste Criteria for textiles and the French EPR scheme. Thus, we would like to advocate for the JRC to prioritise the development of a study on these product categories for the legal requirements on recycled content.
140	3.2.2; 468-470	Product categories should extend to home textiles such as bed linens, towels, kitchen textiles, bathrobes and hospitality service workwear like hospital and restaurant uniforms. Bed linens, towels, bathrobes and kitchen textiles act as clean and accessible post-consumer waste sources. The service industry generates a lot of post-consumer textile waste and these should be included. Also, looking at the French EPR and the JRC's end of waste criteria discussion, it seems that home textiles will be included. So, there would be misalignment if home textiles were excluded from the scope. Agree with workwear textile being included in the scope.
141	3.3; 478-518	Concern: Clothing made from natural raw materials (I.e. cotton, wool and linen) has a wider system boundary than clothing made from fossil fuels (i.e. nylon and polyester), resulting in inequitable comparison. Context: The Product Environmental Footprint (PEF) assesses impacts across the product's entire lifecycle, from cradle to grave. However, the definition of "cradle" differs based on raw material type. For natural fibers, the impacts of fiber formation are fully accounted for, including the farm's land area, water use, and fuel consumption. In contrast, for fossil fuel-based products, the impacts of forming oil are not counted; only oil extraction is considered. This discrepancy leads to an incomplete assessment of the environmental impacts associated with synthetic fibers. Moreover, renewability is not factored into the assessment. Natural fibers are inherently renewable, with cotton cultivated annually and wool harvested seasonally, ensuring a sustainable supply chain. In contrast, fossil fuels, the raw materials for synthetic fibers, are non-renewable, taking millions of years to form. Crude oil, the primary feedstock

ID	Section & line	Comment
		for synthetic textiles, undergoes a highly energy-intensive refining process (EIA, 2024). The naphtha cracking process, a key step in polyester production, further consumes substantial energy and emits greenhouse gases (ResearchGate, 2018). Additionally, polyester production involves high-carbon-emission processes, including polymerization and fiber extrusion, which further increase environmental degradation (CFDA, 2024). These processes result in significant CO_2 emissions, contributing to climate change and fossil fuel depletion, whereas natural fiber production operates on a short regenerative cycle, ensuring sustainability. A better alternate: With fossil fuel-based products benefiting from an environmentally 'free' raw material and natural fiber products having no such benefit, an equitable comparison is not possible. This disparity significantly affects the PEF score. Unlike synthetic fibers derived from fossil fuels, which are non-renewable and take millions of years to form, natural fibers such as cotton, wool, and flax are inherently renewable, replenishing within a single agricultural cycle or through seasonal regrowth. However, the PEF methodology does not account for renewability, treating both types of fibers as if they have the same resource depletion impact, which distorts the sustainability assessment. Furthermore, the energy-intensive production of synthetic fibers contributes significantly to climate change. The crude oil refining process for synthetic textiles requires high energy inputs, contributing to CO_2 emissions and environmental degradation (EIA, 2024). Naphtha cracking, polymerization, and fiber extrusion introduce additional emissions, making synthetic fibers far more carbon-intensive than their natural counterparts (ResearchGate, 2018; CFDA, 2024). These should be factored in while for polyester manufacturing along with the renewability. International standard ISO 14044 specifies that the same system boundary must be used for equitable comparisons. PEF must be updated to comply with the ISO 14044 requirement that "the appropriateness of the system boundary shall be considered as part of the interpretation process." Additionally, renewability should be incorporated as a critical factor in the sustainability assessment, ensuring that materials with rapid regeneration cycles, such as natural fibers, are recognized for their lower long-term environmental impact compared to fossil fuel-derived textiles.
143	Composition, life-cycle stages and main negative environmental impacts of products included in the scope; 478	3. LCA and choice of system boundaries, PEF While the working document (and ultimately, the ESPR JRC study) cannot answer political questions about what our future textiles ecosystem should and will look like, there is a risk it might nevertheless do so implicitly: by its choice of methods (such as PEF), by the decisions about system boundaries in LCAs, and by putting a focus on certain parameters while omitting others The working document states: “Since 2019, the EC has supported the project ‘Product Environmental Footprint Category Rules (PEFCR): apparel and footwear’, hereinafter named PEFCR A&F (8). Part of the textile industry leads this project, which aims to establish rules for the calculation of the Product Environmental Footprint. Once produced, the PEFCR can be used by the industry to voluntarily quantify and report the environmental impacts of specific textile products. The EC follows the development of the PEFCR A&F project as an observer.” (lines 31 ff.) It is worrying that a method that is going to be used in the Green Claims Directive, ESPR for the product category textiles, and potentially other pieces of legislation, is developed by industry, and with the European Commission as an observer only. The JRC should point to the risk and the undemocratic approach in their study. The fact that microplastics will apparently not be considered for the PEFCR for apparel and footwear, developed by industry representatives is particularly worrying given the extensive impact of microplastics on the environment. During the first and second milestone workshop, many stakeholders have raised concerns about the limitations of PEF and the use of LCAs for textiles, and these concerns are also reflected in the written comments to the first milestone working document (which can be found on the website of the Product Bureau PG Section Documents | Product Bureau; https://susproc.jrc.ec.europa.eu/product-bureau/product-groups/467/documents).

ID	Section & line	Comment
		It therefore seems necessary that the working document addresses the limitations of these methods more systematically, and also the potential lack of legitimacy of, and conflict of interest with, a method being developed by industry. On a similar note, it is recommended that the working document should explore whether it is possible to have LCAs and PEF per fibre type rather than per type of clothing item (such as a t-shirt). Likewise, the working document could suggest an impact assessment on the choice of methodologies.
144	3.3; 478-637	Our experience is that there is lack of information in the industry and that more information is generally needed throughout the production chain of textiles. Overall, the text provides a solid introduction to core environmental impacts (e.g., water consumption, energy use, chemicals, waste) across the textile life cycle. However, there are several areas that could benefit from more in-depth coverage, such as: o Collective treatment of fibre types: Averaging across very different cultivation (e.g., organic vs. conventional) or fibre production methods could obscure important distinctions. Greater specificity in how different fibre or farming practices are modelled might yield more precise impact assessments. o Microplastics: The document acknowledges the challenges in quantifying microplastic releases but could better distinguish between uncertainties due to data gaps and those arising from methodological limitations. While it highlights potential environmental risks, it does not assess the relative toxicity of microplastics compared to other pollutants. Lastly, the discussion on natural fibre fragments raises concerns but does not clarify whether their impact is significant beyond chemical additives. Addressing these points would improve the document's clarity and applicability, particularly in LCA contexts o Lack of contextual comparison with other industries: The report focuses on textiles as a major environmental contributor but lacks context on how its impacts compare to other key industries (e.g., agriculture, construction, transport). A broader comparison would provide useful insight into the relative significance of the textile sector. o Geographic variation: Factors such as irrigation practices, pesticide usage, and water stress levels in cotton-growing regions (particularly outside the EU) can drastically affect the environmental impact of the product. Accounting for these regional differences is vital for a robust model. o Land use change: While "land use" is briefly addressed, the conversion of forest or grassland to agricultural fields can significantly increase climate impacts. Including more detail on how this is handled (or might be handled) in the model would help avoid underestimating certain fibre types' CO_2 emissions. o Water accounting: The text focuses primarily on "blue water". We recommend clarifying how surface water, groundwater, and green water (rainwater) are distinguished, especially in areas of high water scarcity or drought. Differentiating these sources can reveal a more accurate picture of local water impacts. o Biodiversity, ecosystems, and eutrophication: While land use is mentioned, there is little detail on habitat loss, soil degradation, or nutrient runoff (leading to eutrophication). These impacts can be critical, especially where intensive agriculture or certain wet-processing methods are used.
145	Life cycle stages,; lines 478 - 518	We see an unfair comparison. Clothing made from cotton has a broader system boundary than clothing made from fossil fuels (e.g. nylon and polyester). From the cradle to the grave: The PEF assesses the impact over the entire life cycle of a product. However, the meaning of "cradle" varies depending on the type of raw material. For cotton the impacts of fiber production are fully considered, including agricultural land, water consumption, fuel consumption, etc. For products based on fossil fuels, the impact of oil extraction is not taken into account. What is BEFORE the production platform. only oil production is taken into account). However, an oil rig for oil extraction requires far less land than the area needed to grow cotton. A recently published study has shown that growing natural fibers uses 60 times more land, 27 times more water and emits 90% more greenhouse gases than fossil fuel extraction to produce the same amount of raw material. These are heavily weighted impacts in the PEF, which means that natural fiber textiles perform significantly worse in the PEF due to the difference between the system boundaries.

ID	Section & line	Comment
		(Zugangslink: https://www.mdpi.com/2071-1050/14/24/16683) Since products based on fossil fuels benefit from an environmentally friendly “free” raw material, while cotton has no such advantage, a fair comparison is not possible. This has a massive impact on the PEF assessment. The international standard ISO 14044 specifies that the same system boundary must be used for fair comparisons. Quote: “the appropriateness of the system boundary (must) be considered as part of the interpretation process.” The PEF must be adapted to this
147	Life Cycle stages; 478-518	The comparison of natural fibres with fibres based on fossil fuels is unfair due to the wider system boundaries of cotton, animal fibres etc. For natural fibres, the impacts of fibre formation are fully accounted, including the farm's land area, water use, fuel use etc. But for fossil fuel-based products, the impacts of forming oil are not counted (oil extraction-only is counted). However, far less land is used by a drilling rig to extract oil than the land area needed to farm natural fibres. A recently published study showed natural fibre farming used 60 times more land, 27 times more water and emitted 90% more greenhouse gases than extraction of fossil fuel to produce the same quantity of raw material. These are heavily weighted impacts in PEF, meaning the system boundary difference results in natural fibres textiles scoring significantly worse in PEF. International standard ISO 14044 specifies that the same system boundary must be used for equitable comparisons. PEF must be updated to comply with the ISO 14044 requirement that “the appropriateness of the system boundary shall be considered as part of the interpretation process.“
148	Life cycle stages; 478 - 518	[…] crafted from pure virgin wool, faces inherent disadvantages under the current PEF methodology due to inequitable system boundaries. Natural fibres are assessed from cradle-to-grave, fully accounting for farming impacts such as land use, water consumption, and emissions from livestock. In contrast, synthetic fibres made from fossil fuels are not burdened by the environmental costs of oil formation; only extraction is counted. This inconsistent boundary application leads to natural fibres being unfairly penalised, as highlighted by studies showing significantly higher resource use for wool compared to synthetic fibres. However, these comparisons fail to account for the ecosystem services provided by natural fibre production, such as carbon sequestration and biodiversity support, which are integral to traditional sheep farming practices. To ensure equitable comparison, PEF must comply with ISO 14044, which requires consistent system boundaries across all materials. By failing to do so, the current methodology risks undermining the sustainability of natural fibres and jeopardising heritage industries like Harris Tweed®. Adopting a fairer system would more accurately reflect the environmental impact of natural fibres, supporting EU sustainability goals without disadvantaging traditional textile producers.
149	Life Cycle stages; 478-518	Natural fibre-based clothing (e.g., wool, cotton, linen) is assessed within a broader system boundary compared to synthetic garments (e.g., polyester, nylon), leading to an unfair comparison. The PEF methodology evaluates environmental impact from cradle to grave, yet the definition of “cradle” varies depending on the raw material source. For natural fibres, the entire fibre formation process—including land use, water consumption, and energy inputs at the farming stage—is included in the assessment. In contrast, for synthetic fibres, the environmental cost of fossil fuel formation is omitted, accounting only for oil extraction. A recent study found that farming natural fibres requires 60 times more land, 27 times more water, and results in 90% higher greenhouse gas emissions than the mere extraction of fossil fuels to produce the same amount of raw material. Since these are heavily weighted factors in PEF calculations, this imbalance significantly disadvantages natural fibres.

ID	Section & line	Comment
		https://www.mdpi.com/2071-1050/14/24/16683 Since fossil fuel-based textiles benefit from an effectively “free” raw material in environmental assessments, while natural fibres do not, an equitable comparison is unattainable under the current methodology. This significantly skews the PEF scores. ISO 14044 mandates that system boundaries must be consistent for fair comparisons. The PEF framework must be updated to align with this international standard, ensuring that: “The appropriateness of the system boundary shall be considered as part of the interpretation process.”
152	3.3.1 composition of life cycle stage; Table 8 :	Add Main ressources impact of petroleum based material (PES/PA) : scarcity of petroleum, Add Main ressources impact of petroleum based material (PES/PA) : scarcity of petroleum, Air, soil and water pollution and land used for extraction.
154	3.3; 500	Important to further specify the type of hair: We recommend to include the following natural origin fibres..: sheep wool, silk, alpaca, mohair, yak, camel , cashmere, vicuna, llama, guanaco, angora wool. These could be listed in a footnote linked to wool and hair.
155	3.3; 517 - Table 8	Table 8 - Main resources: need to add fuel and electricity for stage 1 fibers from crops is used for vegetable origin fibers and animals and insects are used for animal-based fibers.
156	3.3.1; 517	Clarify the spinning process – so it becomes the right process for the right fiber. Is reversed in the proposal.
157	3.3.1; 517	Raw material for fibre production - Please consider additionally: • In addition to dissolved pulp, also paper-grade pulp can be directly used, mixed with chemicals and processed further [https://www.kuura.io/process/] • In addition to petroleum-based polymers, also wood-based solutions for classical fossil-based like polyester are getting relevant [https://www.upmbiochemicals.com/glycols/meg/ and https://www.upmbiofuels.com/chemicals/upm-bioverno-naphtha-for-chemicals/]
158	3.3.1; 517	Raw material for fibre production - Please consider supplements: • In addition to dissolved pulp, also paper-grade pulp can be directly used, mixed with chemicals and processed further [https://www.kuura.io/process/] • In addition to petroleum-based polymers, also wood-based solutions for classical fossil-based like polyester are getting relevant [https://www.upmbiochemicals.com/glycols/meg/ and https://www.upmbiofuels.com/chemicals/upm-bioverno-naphtha-for-chemicals/]
159	3.3.1 (page 25); 3.3.1 517	(3) Yarn manufacturing. Carded MMCF. It appears that fiber spinning and yarn spinning processes are being conflated in this instance. Given that the 'Input' column specifies 'Carded MMCF,' it is evident that the discussion pertains to staple fibers rather than filaments.

ID	Section & line	Comment
		To ensure accuracy, we recommend the following adjustments: - Correct spinning methods for staple fibers: Ring spinning, air-jet spinning, open-end spinning. - Incorrect and should be removed: Wet spinning. Wet spinning is a method used for producing viscose and modal fibers (including filaments), not for spinning them into yarns. Similarly, lyocell fibers (including filaments) are produced using the dry jet-wet spinning method. These distinctions are important to maintain technical precision.
160	3.3.2; 519-638	Concern: The overriding focus on assessing environmental harm, inherent in PEF's 16 indicators, ignores positive impacts from farming natural fibers, thereby biasing against them. Context: The production of natural fibers actively contributes to climate change mitigation and ecological stability, yet the current PEF methodology ignores these benefits. Unlike synthetic fibers derived from fossil fuels, natural fibers capture and sequester atmospheric carbon during plant growth, improving soil health, biodiversity, and farm resilience. Regenerative farming practices further enhance biodiversity by maintaining complex ecosystems on farms, creating habitats for pollinators, enriching soil microbiomes, and improving water retention and land fertility. Moreover, cotton is composed of biogenic carbon, meaning it removes CO_2 from the atmosphere as it grows. Cotton fibers are made primarily from cellulose ($C_6H_{10}O_5$), which is more than 40% carbon by atomic weight (Wakelyn, P.J. (2006). Cotton Fiber Chemistry and Technology (1st ed.). CRC Press. Chapter 3). The process of photosynthesis ensures that cotton acts as a temporary carbon sink, helping reduce atmospheric greenhouse gases. Every acre of cotton captures and stores 3,513 pounds of carbon in the lint alone. Since each unit of carbon removed corresponds to 3.66 units of CO_2 captured from the air, the environmental benefit of cotton should be recognized and incorporated into lifecycle assessments (NC State University, 2024). Furthermore, ISO 14067:2018, titled "Greenhouse gases — Carbon footprint of products — Requirements and guidelines for quantification", provides a clear framework for calculating the carbon footprint of products, including considerations for biogenic carbon storage. According to this standard, biogenic carbon removals and emissions must be included in the final carbon footprint results and reported separately, following the -1/+1 approach. This means that the uptake of CO_2 by plants during growth (biogenic carbon removal) is accounted for as a negative emission, and its release back into the atmosphere (e.g., during product use or end-of-life) is accounted for as a positive emission (Textile Exchange, 2024). Despite this, PEF does not apply these scientifically established principles, leading to misrepresentation of the true environmental benefits of natural fibers. In contrast, fossil fuel-based synthetic fibers do not store carbon and instead contribute to net greenhouse gas emissions throughout their entire lifecycle, from crude oil extraction to refining, polymerization, and waste accumulation. A better alternate: Recital 32 of the Green Claims Directive clearly states: "As regards foods and agricultural products, biodiversity and nature protection, as well as farming practices, including positive externalities of extensive farming and animal welfare, should, for example, also be integrated before the adoption of the PEFCR." This directive explicitly recognizes the need to integrate positive environmental impacts into sustainability assessments. However, PEF does not currently account for these

ID	Section & line	Comment
		benefits, making it an inadequate and incomplete tool for assessing the true environmental impact of natural fibers. Furthermore, ISO 14067:2018 requires that biogenic carbon storage be accounted for in lifecycle assessments, recognizing that natural fibers like cotton actively remove CO_2 from the atmosphere, reducing overall greenhouse gas concentrations. This principle is well-established and should be applied to textile sustainability assessments. Until PEF integrates biogenic carbon storage, natural fibers will continue to be unfairly penalized, while synthetic fibers benefit from a flawed system that ignores their high-carbon footprint. To avoid unjustified harm to the natural fiber industry, PEF should not be implemented until it includes: 1. A Carbon Sequestration Credit: Following ISO 14067:2018, biogenic carbon uptake should be factored into lifecycle analysis to recognize cotton's role in greenhouse gas reduction. 2. Alignment with the Green Claims Directive: Environmental assessments should reflect the ecosystem services provided by natural fiber farming, including biodiversity protection, soil regeneration, and temporary carbon storage. 3. A Fair Comparison Between Fiber Types: Fossil fuel-derived textiles must be evaluated for their full lifecycle emissions, from crude oil extraction through polymerization to waste generation. Until these changes are made, PEF remains an incomplete and biased tool, penalizing truly sustainable materials while allowing fossil fuel-based fibers to escape scrutiny for their long-term climate impact.
163	Negative environmental impacts,; lines 519-638	The positive impacts of cotton production are not taken into account in the 16 PEF indicators with a focus on the assessment of environmental damage. This puts cotton at a disadvantage. The production of cotton binds atmospheric carbon . Regenerative cultivation methods promote biodiversity. These fibers are not only renewable, but actively contribute to ecosystem services that mitigate climate change, prevent land degradation and support a healthier and more diverse environment. "For example, for food and agricultural products, biodiversity and nature conservation and agricultural practices, including positive externalities from extensive farming and animal welfare, should also be taken into account before the PEFCR is adopted". as stated in recital 32 of the Green Claims Directive. PEF can evolve over time to measure positive impacts, but until then it cannot create a level playing field for all textiles. The cotton industry would suffer unwarranted collateral damage and possibly collapse dramatically - so PEF should not be adopted until the positive impacts have been measured.
165	Negative environmental impacts; 519-638	The positive impacts from farming natural fibres, e.g. all positive social impacts for farming communities are ignored since the focus lies on environmental harm only. Also the production of natural fibres captures and sequesters carbon in the atmosphere and can enhance soil health. Regenerative farming promotes biodiversity and strengthens soil health. Recital 32 of the Green Claim Directive states: "As regards foods and agricultural products, biodiversity and nature protection, as well as farming practices, including positive externalities of extensive farming and animal welfare, should, for example, also be integrated before the adoption of the PEFCR". PEF may evolve to measure positive impacts over time, but it cannot provide a level playing field across textiles until then. Unwarranted collateral damage would be done to natural fibre industries - so PEF should not be adopted until it measures the positives.
166	Negative environment	The current PEF framework disproportionately focuses on environmental harm, neglecting the positive impacts of natural fibre production. Sheep farming for wool production, such as that used to produce [...], not only supports local biodiversity but also sequesters carbon, enriches soil health, and enhances farm resilience, contributing significantly

ID	Section & line	Comment
	al impacts; 519-638	to ecosystem services. These positive externalities, which align with regenerative agricultural practices, are ignored by PEF, leading to an incomplete and biased assessment compared to synthetic fibres. Recital 32 of the Green Claims Directive acknowledges the importance of integrating positive externalities from farming before adopting PEFCR. Therefore, PEF should be revised to account for the environmental benefits of natural fibre production. Until this happens, adopting PEF would unfairly penalize sustainable industries like Harris Tweed®, undermining EU climate strategies that rely on nature-based solutions. By recognizing the full environmental value of natural fibres, PEF can provide a balanced and accurate representation of their ecological impact.
167	Negative environmental impacts; 519-638	The PEF's reliance on 16 environmental indicators focuses exclusively on negative impacts while ignoring the environmental benefits of natural fibre production, creating an inherent bias. The cultivation of natural fibres contributes positively to the environment in multiple ways: • Carbon sequestration: Pasture growth captures atmospheric carbon, improving soil quality and farm sustainability. • Biodiversity support: Regenerative farming fosters rich ecosystems, enhancing biodiversity. • Ecosystem services: Natural fibre farming plays an active role in mitigating climate change, preventing soil degradation, and fostering a more resilient landscape. The Green Claims Directive (Recital 32) states that: "As regards foods and agricultural products, biodiversity and nature protection, as well as farming practices, including positive externalities of extensive farming and animal welfare, should, for example, also be integrated before the adoption of the PEFCR." While PEF may eventually evolve to incorporate positive impacts, it currently does not. Until such an update occurs, it cannot provide a level playing field. Implementing PEF in its current form risks substantial, unjustified damage to natural fibre industries. Therefore, its adoption should be postponed until it can account for both positive and negative environmental effects.
171	3.3.2; 529	The use of land for the rearing of livestock is typically only characterised in negative terms, for greenhouse gas emissions (GHG), water consumption and biodiversity. However, the social, economic and environmental benefits of agriculture are not included in the assessment of material and fibre production. This is particularly the case for livestock, where the primary reason for rearing is the production of meat and milk, and fibres and materials like wool and leather are a coincidental by-product. These products will carry an allocation of the impact of the rearing of livestock during Life Cycle Assessment which may account for a significant proportion of the measured environmental impact of the resulting products. However, as these products are derived from by-products, their production has absolutely no impact on the rearing of livestock. As shown in the study by Sant'Anna University in Pisa on the impact of the EU deforestation regulation on the leather industry, the demand for leather has no influence on the number of animals reared and slaughtered for meat (https://www.cotance.com/images/documents/Socio-economic_and_environmental_analysis_of_the_effects_of_the_EUDR_on_the_European_leather_sector.pdf). Nonetheless, this upstream burden from agriculture places animal fibres at a significant disadvantage compared to synthetics that do not carry the burden of agricultural practice in the production of meat and milk. This allocation creates an unwarranted barrier to the use of animal materials and fibres, as the apparent impact of the resultant product may be higher than for other fibres and materials. This however, ignores the wider implications that, if not used, these materials will still be produced and subsequently wasted. This is clearly contrary to the EU's ambitions for the circular economy and reduction in waste, including the revisions of the Waste Framework Directive.

ID	Section & line	Comment
		Removing this perverse barrier to the use of existing raw materials by taking a considered, holistic view of their impact would positively contribute to their use and to the minimisation of waste production in the EU and the rest of the world.
173	3.3.2; 532	In discussing land use for cultivation of natural fibres, it is important to mention the distinctions between different cultivation methods, such as organic vs agro-ecological vs conventional cotton. Such a distinction is important in order to accurately assess their respective impacts.
174	3.3; 534	should co products of cotton fibre production be listed for consistency with statements made on animal fibres?
176	3.3; 544	"Water is mainly used in numerous": please delete 'mainly' to make the phrase correct.
177	3.3.2; 555	A very comprehensive and thorough life cycle assessment of textile products which include textile chemicals is this study: https://publications.lib.chalmers.se/records/fulltext/246361/246361.pdf
178	3.3.2; 562-564	Paragraph 2 (on Health exposition) is incomplete as it is mentioning farmers and textile workers but omitting retailers, second-hand workers and logistic operators in the list of humans exposed to textiles. This needs to be corrected as everyone in recurring contact with and handling textiles will inhale chemicals and fibres emitted by textiles. More generally speaking, health impacts are being considered but with no mention nor association with the toxicity of microfibres inhaled or ingested. The wording "chemical properties" is used but not "toxicity" nor "chemical additives" which is problematic to get the bigger picture (line 611).
179	3.3.2; 576	A question - "and about 10% was recycled". Is it possible to specify what kind of recycling methodes? Are we talking about downstreams recycling like composites and rags or mechanical/chemical recycling resulting in a new fiber?
180	3.3.2; 577-579	The assumption that the exports of used textiles outside the EU produce "negative environmental and social impacts" is questionable. The export of second-hand clothes outside the EU has a general positive environmental impact, as this replace the consumption of new garments, the production of which has a significant environmental impact. According to the "LCA-based assessment of the management of European used textiles" (Norion, VITO, EigenDraads) (2023), "Reuse globally (i.e. exported reused textile) is to be preferred over recycling despite long haul transport" and is therefore environmentally beneficial. According to that same study, the second-hand industry significantly lessens the environmental footprint of clothing items, with reused textiles requiring just 0.01% of water and saving about 3 kg of CO2 per item compared to the production of new clothing. There is no scientific consensus on the impact of the export of second-hand clothes on the waste generation and management in the receiving countries outside the EU. As stressed by Lingås et al. (2024) "Sorting criteria for second-hand clothes to Kenya", "The share of imported second-hand clothes that becomes waste immediately varies from 1-2 % all the way up to 50 %, depending on the source of information". The doubtful allegations from the OR Foundation (2022) ("Waste makes visible our separation from nature") that around 40% of the used clothing shipped to Ghana's biggest second-hand clothes market are waste have recently been challenged by a series of studies (including from the GUCDA, and the GIZ), with estimate of waste at between 1 and 5%. Furthermore, according to Lingas et al, one of the reasons behind opposing conclusions from different studies may lie in the different ways of defining waste.

ID	Section & line	Comment
		References: • Ghana Used Clothing Dealers Association (2024), "an evaluation of the socio-economic and environmental impact of the second-hand clothes trade in Ghana". • Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) (2024), assessment study "Used textiles at Kantamanto market". Finally, environmental challenges in receiving countries outside the EU are not solely due to imports of second-hand clothes. The environmental impact in recipient countries often stems from inadequate waste management infrastructure rather than the mere presence of imported second-hand textiles. While some reports (from e.g. OR Foundation) highlight concerns over waste accumulation, robust data on the direct causal link between second-hand clothes' imports and environmental degradation is limited. The export of used clothing outside the EU also has a positive socio-economic impact in the receiving countries. According to GUCDA (2024), which looks at the situation in Ghana, one of the largest importers of second-hand clothes, "a vast majority of Ghanaians consume SHC, at least 95% of the population". Furthermore, according to Oxford Economics (2024), "second-hand clothes (SHC) trade between the EU27+ and Ghana, Kenya, and Mozambique generated substantial economic impacts in the three African countries." The study estimates that "the SHC trade with the EU27+ generated jobs for 43,000, 68,000, and 15,000 informal workers in the SHC industries in Ghana, Kenya, and Mozambique, respectively".
181	3.3.2; 579	Export of used textiles for reuse is not only producing negative environmental and social impacts, there are many people in the informal sector in third countries that are dependent of the trade of used textiles. It is a complex issue which is not black and white. See a newly published (January 2025) report : Sustainability assessment of textile reuse and recycling in and outside of Europe Environmental, economic, and social implications https://ivl.diva-portal.org/smash/get/diva2:1926690/FULLTEXT01.pdf
182	3.3; 587	Please consider Aii Roadmap to Net Zero Report linked below. It may include useful figures for this section, see table 1, p.5. Source: ROADMAP TO NET ZERO: DELIVERING SCIENCEBASED TARGETS IN THE APPAREL, World Resources Institute and Apparel Impact Institute (Aii): roadmap-net-zero-delivering-science-based-targets-apparel-sector.pdf
183	3.3.2; 591-638	This section aims to give a "general overview about the factors that negatively affect the environment". The PS should also seek to discuss and try to quantify the positive environmental contributions that natural fibres offer. Natural fibres, such as cotton, wool, and hemp, often play significant roles in enhancing biodiversity, improving soil health through crop rotation and regenerative farming practices, and sequestering carbon, thereby mitigating climate change, not to mention the economic importance for smallholders (see this report: https://www.crdc.com.au/sites/default/files/pdf/ESPR%20critique.pdf) By assessing these positive impacts, the JRC would provide a more balanced and comprehensive view of the environmental performance of textiles.

ID	Section & line	Comment
		The importance of natural fibres in sustainable development has been highlighted by the UN Resolution 78/169 of December 2023 which states: - Natural fibres are essential for sustainable development. They are renewable, biodegradable, and have a lower environmental impact than synthetic fibres. - The production and processing of natural fibres can contribute to poverty eradication and food security. These activities provide employment and income opportunities for farmers and rural communities. - Natural fibres can help to mitigate climate change. They absorb carbon dioxide from the atmosphere, and they can be used to produce products that reduce our reliance on fossil fuels. In addition, the PS does not adequately take into account the potential of natural fibres to be biodegradable or compostable when looking at end-of-life possibilities.
184	3.3.2; 594-624	Concern: Overlooking microplastics Green Claims Directive Recital 32 states "the adoption of PEFCR may take place only once these new relevant environmental impact categories have been added" and "as regards textiles, the PEFCR should for example reflect the microplastics release, before the adoption of PEFCR could be considered". This requirement has not been met. Context: Despite mounting evidence of the harm caused by synthetic fiber pollution, PEFCRs are being proposed without addressing the critical issue of microplastic release. Rather than integrating microplastic pollution into PEF scoring, the methodology merely acknowledges it as additional information, with no real influence on the sustainability assessment. The major flaws in this approach include: • Microplastic release is only measured at the laundering stage, even though studies show that 88% of plastic leakage occurs at the end-of-life stage, as discarded polyester clothing slowly degrades into microplastics in landfills and the environment (Nature Communications, 2024). • Natural fiber microfibers are falsely equated with synthetic microplastics, even though natural fibers have been worn for thousands of years without building up in the environment or human bodies. • New medical evidence from studies published by the Bremen Cotton Exchange and Nature Medicine shows that microplastics accumulate in human tissues, including the brain, with links to serious health conditions such as heart disease, strokes, dementia, and cancer (Bremen Cotton Exchange, 2025; Nature Medicine, 2024). Ignoring these findings goes against the EU's objectives for environmental and human health protection and undermines the credibility of sustainability assessments. Additionally, the root cause of textile microplastic pollution is the overwhelming dominance of synthetic fibers. Polyester now accounts for approximately 80% of all synthetic

ID	Section & line	Comment
		fibers, making up the majority of the global textile market. Between 2003 and 2023, total fiber consumption doubled from 54 million tons to 107 million tons, yet this growth was almost entirely driven by synthetic fibers. Fast fashion is built on the low-cost advantage of synthetic textiles, and historical price comparisons demonstrate this trend: • In 1960, polyester was four times more expensive than cotton (277.8 USC/lb for polyester vs. 65.0 USC/lb for cotton). • By the 1980s, polyester prices dropped significantly, becoming cheaper than cotton. • Since 1990, polyester has consistently remained cheaper than cotton, often by 30-50%, fueling the explosive growth of fast fashion and disposable textiles. In 2024, polyester was priced at 101.6 USC/lb, while cotton was 195.2 USC/lb—almost double the cost, reinforcing the continued price-driven shift toward synthetics, (Ruiz, Lorena. World Textile Demand, ICAC, 2024). These low prices make polyester garments more accessible, but they also mean they are worn fewer times and discarded more frequently, contributing to excessive waste and microplastic pollution. The PEF methodology fails to account for the connection between synthetic fiber affordability, increased production, shorter use phases, and long-term environmental damage. A better alternate: Recital 32 should be properly complied with. Microplastics should be accounted for across all life stages, as is the case for all other PEF impact categories. The argument proposed to the Technical Secretariat that accounting for microplastics in other life stages must wait "until the science comes in" is inadequate. Many other aspects of the PEFCRs lack scientific evidence but the Technical Secretariat was consistently encouraged to progress methodology development using 'expert opinion'. Expert opinion may be far from optimal but is still better than entirely ignoring impacts!
186	3.3.2; 594	No mention of microplastic emissions to water being problematic on pages 26-27! The second para under "pollution originated from textile fragmentation" (lines 610-15) should contain more info on impacts. Just one sentence very understated "once released into the environment, microplastics can be ingested by organisms, leading to problems due to physical and chemical properties of the microplastics" this should translate in concrete impacts and figures using our report on the marine impacts of microplastics.
187	Textile fragmentation,; 594-624	Overlooking microplastics The following requirement was not met: Recital 32 of the Green Claims Directive states that "the adoption of the PEFCR can only take place once these new relevant environmental impact categories have been added" and "in relation to textiles, for example, the PEFCR should reflect the release of microplastics before the adoption of the PEFCR can be considered". The PEFCRs are proposed for final approval and use in the ESPR, with the presence of microplastics in clothing having no impact on the PEF assessment. Rather, they are reported as "additional information" in a minimalist manner.

ID	Section & line	Comment
		- Microplastics are mixed with microfibers from natural fiber products, even though natural fibers have been worn for thousands of years without microfibers depositing in the environment or in our bodies or affecting human health. - They are only reported for the washing phase, although the vast majority of microplastics are released at other life stages, particularly at the end of the life cycle, which is estimated to account for 88% of all plastic leakage - where this plastic eventually breaks down into microplastics. (Access link: https://doi.org/10.1038/s41467-024-49441-4) A new report from the Bremen Cotton Exchange also highlights the growing evidence of the damage caused by microplastics, which has been linked to health problems such as heart attacks, strokes, dementia and death. The report highlights the need for warning labels on products containing synthetic fibers as they contain hazardous chemicals. Another report highlighting the health concerns associated with microplastics was published in the journal Nature Medicine and found high levels of microplastics in brain samples. Analysis and Product Environmental Footprinting Applications (Access link: https://baumwollboerse.de/wp-content/uploads/2025/01/BWB_Studie_2025_P4.pdf) Bioaccumulation of microplastics in decedent human brains (Access link: https://www.nature.com/articles/s41591-024-03453-1) Recital 32 must be properly followed. Microplastics should be considered at all life stages, as is the case for all other PEF impact categories. The argument proposed to the Technical Secretariat that consideration of microplastics in other life stages must wait “until the scientific evidence is available” is insufficient. There is no scientific evidence for many other aspects of the PEFCRs, but the Technical Secretariat has been repeatedly encouraged to use ‘expert opinion’ to drive the development of the methodology. The impacts should not be ignored
188	Textile Fragmentation; 594-624	My concern: My concern is about an ESPR scheme based on PEF overlooking microplastics. Green Claims Directive Recital 32 states “the adoption of PEFCR may take place only once these new relevant environmental impact categories have been added” and “as regards textiles, the PEFCR should for example reflect the microplastics release, before the adoption of PEFCR could be considered”. This requirement has not been met. Explanation: The PEFCR’s are being proposed for final approval and for use in ESPR, with the presence microplastics in clothing having no impact on the PEF score.

ID	Section & line	Comment
		Rather, they will be reported as “additional information” in the most minimalistic way. • Microplastics will be as amalgamated with microfibres from natural fibre products even though natural fibres have been worn for thousands of years without microfibres building up in the environment or our bodies or impacting human health. • They will only be reported for the laundering stage-only, even though the great majority of microplastics are released from other life stages, particularly end-of-life, which is estimated to make up 88% of the total plastic leakage – with this plastic eventually breaking down to microplastics. https://doi.org/10.1038/s41467-024-49441-4 Furthermore, a new report by the Bremen Cotton Exchange highlighted the growing evidence of harm caused by microplastics, linked to health issues such as heart attacks, strokes, dementia and death. The report emphasizes the needs for warnings on products containing synthetic fibres due to their hazardous chemicals. An additional report highlighting health concerns related to microplastics was published in the Nature Medicine journal, finding high levels of microplastics in brain samples. This increasing evidence on the health risk microplastics can cause, needs to be considered by new legislation such as the ESPR. A better way: Recital 32 should be properly complied with. Microplastics should be accounted for across all life stages, as is the case for all other PEF impact categories. The argument proposed to the Technical Secretariat that accounting for microplastics in other life stages must wait “until the science comes in” is inadequate. Many other aspects of the PEFCRs lack scientific evidence but the Technical Secretariat was consistently encouraged to progress methodology development using ‘expert opinion’. Expert opinion may be far from optimal but is still better than entirely ignoring impacts!
189	3.3.2; 594	The document looks at unintended releases of microplastics from textiles (fragmentation). However, to some textiles (especially fashion and sportswear) microplastic-based glitters, prints, or decorations are incorporated intentionally. The document does not look at intentional additions of microplastic to textiles leading to unintended releases. Given the environmental impacts, the latter scenario has to be added to the preparatory study.
190	Textile Fragmentation; 594-624	Overlooking microplastics Green Claims Directive Recital 32 states “the adoption of PEFCR may take place only once these new relevant environmental impact categories have been added” and “as regards textiles, the PEFCR should for example reflect the microplastics release, before the adoption of PEFCR could be considered”. This requirement has not been met. Context The PEFCR’s are being proposed for final approval and for use in ESPR, with the presence microplastics in clothing having no impact on the PEF score. Rather, they will be reported as “additional information” in the most minimalistic way. • Microplastics will be as amalgamated with microfibres from natural fibre products even though natural fibres have been worn for thousands of years without microfibres building up in the environment or our bodies or impacting human health. • They will only be reported for the laundering stage-only, even though the great majority of microplastics are released from other life stages, particularly end-of-life, which is

ID	Section & line	Comment
		estimated to make up 88% of the total plastic leakage – with this plastic eventually breaking down to microplastics. (Access link: https://doi.org/10.1038/s41467-024-49441-4) Furthermore, a new report by the Bremen Cotton Exchange highlighted the growing evidence of harm caused by microplastics, linked to health issues such as heart attacks, strokes, dementia and death. The report emphasizes the needs for warnings on products containing synthetic fibres due to their hazardous chemicals. An additional report highlighting health concerns related to microplastics was published in the Nature Medicine journal, finding high levels of microplastics in brain samples. This increasing evidence on the health risk microplastics can cause, needs to be considered by new legislation such as the ESPR. The Treatment of Microfibers in Life Cycle Analysis and Product Environmental Footprinting Applications (Access link: https://baumwollboerse.de/wp-content/uploads/2025/01/BWB_Studie_2025_P4.pdf) Bioaccumulation of microplastics in decedent human brains (Access link: https://www.nature.com/articles/s41591-024-03453-1) Recital 32 should be properly complied with. Microplastics should be accounted for across all life stages, as is the case for all other PEF impact categories. The argument proposed to the Technical Secretariat that accounting for microplastics in other life stages must wait "until the science comes in" is inadequate. Many other aspects of the PEFCRs lack scientific evidence but the Technical Secretariat was consistently encouraged to progress methodology development using 'expert opinion'. Expert opinion may be far from optimal but is still better than entirely ignoring impacts!
191	Textile fragmentation; 594 - 624	The PEF framework fails to adequately address microplastic pollution, a major environmental issue linked to synthetic textiles. Microplastics are only considered during the laundering stage, with no impact on the PEF score, and are aggregated with natural fibre microfibres despite vastly different environmental behaviours. […], made from pure wool, is fully biodegradable and has no lasting microplastic footprint, unlike synthetic fibres that persist in the environment and accumulate in food chains. Furthermore, end-of-life stages, where synthetic textiles contribute significantly to plastic pollution, are not accounted for. This selective approach contradicts Recital 32, which requires microplastics to be fully integrated before PEFCR adoption. PEF should be updated to assess microplastic emissions across all life stages, ensuring a fair comparison that accurately reflects the environmental impact of synthetic versus natural fibres. This would highlight the biodegradability of […], supporting informed consumer choices and aligning with EU environmental policies.
192	Textile fragmentation; 594-624	The PEF methodology fails to properly account for microplastic pollution. The Green Claims Directive (Recital 32) clearly states that: "The adoption of PEFCR may take place only once these new relevant environmental impact categories have been added" and "as regards textiles, the PEFCR should for

ID	Section & line	Comment
		example reflect the microplastics release, before the adoption of PEFCR could be considered." Despite this, PEFCR is being pushed forward for final approval without integrating microplastic impacts into its scoring system. Instead, microplastic emissions are relegated to an "additional information" category, meaning they will not affect a product's PEF score. Key concerns include: • Microplastics and natural fibre microfibres are being reported as a single category, despite extensive evidence that natural fibres have been in use for centuries without leading to persistent environmental contamination or human health risks. • Only the laundering stage is assessed, while the majority of microplastic pollution (88%) occurs at end-of-life when synthetic garments degrade into microplastics. https://doi.org/10.1038/s41467-024-49441-4 Additionally, a recent Bremen Cotton Exchange report highlighted the increasing body of evidence linking microplastic exposure to severe health risks, including strokes, heart disease, dementia, and even mortality. Another study, published in Nature Medicine, found alarming levels of microplastics in human brain samples, further reinforcing the urgency of addressing this issue. The Treatment of Microfibers in Life Cycle Analysis and Product Environmental Footprinting Applications (access: https://baumwollboerse.de/wp-content/uploads/2025/01/BWB_Studie_2025_P4.pdf) Bioaccumulation of microplastics in decedent human brains (access: https://www.nature.com/articles/s41591-024-03453-1) PEFCR must comply with Recital 32 by integrating microplastic emissions into the main scoring framework, rather than treating them as an afterthought. Moreover, the argument that other life stages cannot be assessed until "the science is settled" is inconsistent with how PEF has treated other impact categories. In multiple cases, methodology development has proceeded based on expert opinion, even when comprehensive scientific data was lacking. Given the overwhelming evidence of harm, microplastic pollution must not be ignored in environmental assessments.
195	3.3.2 Main factors influencing the negative environmental impacts; 616-624	While the biodegradability of natural fragmented fibres is often cited as a mitigating factor, their potential environmental risks remain underexplored, as noted in UNEP (2020). It is acknowledged that both natural and synthetic textiles release microfibres, and their environmental impact parallels in many ways. Natural fragmented fibres are biodegradable only in their unprocessed/raw state, their biodegradability in a processed state is not supported scientifically. Processed natural fibres account for an excess of 60% of all fibres in the environment (we can provide references), which calls into question the view they are biodegradable in sufficient time before causing harm. Moreover, the processing involves the addition of chemical dyes and finishes which slows down biodegradation. The existing data gaps regarding the environmental impacts of microfibre release further complicate the establishment of a fair and effective ecodesign requirement. Without robust, comprehensive research to define the effects of both synthetic and natural microfibre release, any requirement risks being arbitrary and failing to address the broader

ID	Section & line	Comment
		environmental challenge. Therefore, a balanced, evidence-based approach that accounts for all fibre types is essential. Additionally, focusing an ecodesign requirement solely on limiting the release of microplastics, without addressing the fragmentation of natural and man-made cellulosic fibres, would create a significant imbalance in its application. Such a narrow focus would disproportionately affect economic operators and actors in the value chain, particularly SMEs and microenterprises. This would contravene the principles to set eco-design requirements (Art 5.11.d)).
196	3.3.2; 616-624	There are several studies that demonstrate the degradability of MMCF fibers. Cellulose breaks down in water constantly. See plants and wooden parts made up of cellulose. Not so biodegradable: Polylactic acid and cellulose/plastic blend textiles lack fast biodegradation in marine waters | PLOS ONE Degradation of synthetic and wood-based cellulose fabrics in the marine environment: Comparative assessment of field, aquarium, and bioreactor experiments - ScienceDirect
197	3.3.2 (page 27-28); 616-624	PART I/II: Plants containing cellulose have existed on Earth for hundreds of millions of years. If cellulose—the primary component of cotton—were inherently problematic, ecosystems would have long been overwhelmed by plant waste and microparticles. While it is true that certain dye and finishing treatments can influence biodegradability, making broad claims without specifying how microparticles were processed (e.g., the use of dyes and other chemicals, dyeing and finishing techniques) is an oversimplification, particularly given the current state of scientific evidence. A fundamental distinction must be drawn between inherently biodegradable fibers (such as natural fibers and regenerated cellulose fibers) and synthetic fibers. Regardless of dyeing or finishing processes, synthetic fibers shed microparticles that persist in the environment for potentially hundreds of years. In contrast, textiles made from renewable, biodegradable materials are designed—and can be further optimized—to degrade naturally, mitigating the risks associated with microplastic pollution.

ID	Section & line	Comment
		The primary concern regarding fragmented textile particles from natural fibers does not lie in the fibers themselves but in the chemical treatments applied during dyeing and finishing. These treatments are primarily used to enhance fabric and garment durability, aligning with one of the core objectives of the ESPR. This presents a significant trade-off when compared to the release of non-biodegradable microparticles from synthetic-based textiles. For cotton fabrics, the most common functional finishes include dyes, softening agents, durable press (wrinkle resistance and stability), water and stain repellents, and antimicrobials. Scientific tests indicate that cotton treated with all finishes—except durable press—degrades as rapidly or more rapidly than oak leaves under the same environmental conditions and, on average, degrades as fast as unfinished cotton. At present, it remains unclear what the EU aims to achieve in this regard. On the one hand, we observe increasingly stringent durability requirements that many textiles made from natural fibers will struggle to meet without substantial chemical finishing and/or blending with synthetic fibers. On the other hand, the report raises concerns about microparticles from natural textile materials, implying they pose environmental risks comparable to microplastics. These positions appear contradictory. Furthermore, the content in rows 620–622 is misleading. The environmental and human toxicity of chemicals is a broader issue, independent of whether they are applied to natural or synthetic fibers. However, the statement in these rows fails to acknowledge a critical distinction: synthetic fragmented fibers are inherently persistent and environmentally hazardous, irrespective of any hazardous substances they may carry. The risks associated with microplastics are fundamentally different from those posed by microparticles derived from natural or regenerated cellulose fibers. Regarding rows 622–624, as long as dyeing and finishing treatments are non-toxic and do not exhibit toxicity upon degradation, is there any scientific basis for assuming that cotton or cellulosic microparticles are more harmful than those derived from toilet paper? The average U.S. citizen flushes approximately 20.5 kilograms of toilet paper annually, and by weight, the cellulose microparticles released from this usage equate to washing 1.4 million cotton T-shirts. Despite this, cellulosic microparticles from toilet paper do not appear to be a concern for aquatic ecosystems, whereas natural fragmented biodegradable fibers from textiles are considered ecologically disruptive. Moreover, there seems to be a prevailing assumption that textiles represent the predominant source of natural fiber microparticle release into aquatic systems. If the objective is to reduce the overall presence of cellulosic microparticles, focusing on apparel alone is unlikely to yield a meaningful reduction. Presence cannot be equated with pollution. To our knowledge, no scientific studies have demonstrated a reliable method for distinguishing the origin of cellulose-based micro- or nanoparticles found in marine environments—whether they originate from toilet paper, textiles, or paper products.

ID	Section & line	Comment
		(See references in PART II/II due to no. of characters limitations)
198	3.3.2 (page 27-28); 616-624	PART II/II Additionally, we note that this JRC report does not appear to include a dedicated section on fabric and garment design strategies that enhance biodegradability, despite literature and test reports indicating that such approaches are feasible. Is this aspect planned for inclusion in the third milestone? If not, we would kindly request the addition of a section addressing this issue. However, we fully acknowledge the need for further studies to determine the optimal dyeing and finishing processes for textiles made from natural fibers and man-made cellulosic fibers (MMCFs). These considerations must be aligned with regulatory durability requirements and thresholds for specific physical performance characteristics. References for PART I/II: - Zambrano MC, Pawlak JJ, Daystar J, Ankeny M and Venditti RA. Impact of dyes and finishes on the aquatic biodegradability of cotton textile fibers and microfibers released on laundering clothes: Correlations between enzyme adsorption and activity and biodegradation rates. Marine Pollution Bulletin, 2021; 165. https://www.sciencedirect.com/science/article/abs/pii/S0025326X21000643?CMX_ID=&SIS_ID=&dgcid=STMJ_AUTH_SERV_PUBLISHED&utm_acid=122188762&utm_campaign=STMJ_AUTH_SERV_PUBLISHED&utm_in=DM119204&utm_medium=email&utm_source=AC_ - Zambrano MC, Pawlak JJ, Daystar J, Ankeny M and Venditti RA. Aerobic biodegradation in freshwater and marine environments of textile microfibers generated in clothes laundering: Effects of cellulose and polyester-based microfibers on the microbiome. Marine Pollution Bulletin, 2020; 151, 110826. - Li L, Frey M and Browning KJ. Biodegradability study on cotton and polyester fabrics. Journal of Engineered Fibers and Fabrics, 2010; 5(4): 42-53. Biodegradability Study on Cotton and Polyester Fabrics (sagepub.com) - Zambrano MC, Pawlak JJ, Daystar J, Ankeny M and Venditti RA. Microfibers generated from the laundering of cotton, rayon and polyester based fabrics and their aquatic biodegradation. Marine Pollution Bulletin, 2019; 142(4):394-407. - Szadkowski B, Piotrowska M, Rybiński P and Marzec A. Natural bioactive formulations for biodegradable cotton eco-fabrics with antimicrobial and fire-shielding properties. International Journal of Biological Macromolecules 2023; 237: 124143. - Schneider R and Šostar-Turk S. Good quality printing with reactive dyes using guar gum and biodegradable additives. Dyes and pigments 2003; 57: 7-14. - Shahid I, Mohammad S and Faqeer M. Perspectives for natural product based agents derived from industrial plants in textile applications–a review. Journal of cleaner

ID	Section & line	Comment
		production 2013; 57: 2-18. - OWS Final Report FHO-25. Gent; October 18, 2019. Pilot-scale composting for qualitative evaluation of disintegration of lyocell and polyester shirt. - OWS Final Report FHO-3. Gent; April 26, 2013. Pilot-scale composting for qualitative evaluation of disintegration of woven fiber net and denim shirt. - Deheyn DD. On the biodisintegration of textiles along sequential steps of functionalization. Presented at Dornbirn Global Fiber Congres in Dornbirn (Austria) on September 12, 2024. - Cotton microfibers biodegrade similar or faster than tissue paper microfibers in wastewater treatment, fresh water and saltwater environments. In Cotton Today. March 26, 2024 https://cottontoday.cottoninc.com/cotton-microfibers-biodegrade-faster-than-tissue-paper-in-wastewater-fresh-water-and-saltwater/
199	3.3.2; 634	Table 9 on page 29 is incomplete: since there is no mention of micro nor nanoplastics release in human health or ecosystem quality (UNEP 2020). When referring to the EEA 2022 report on environmental impacts, 4 impact categories are listed which do not include microplastic release nor toxicity, those gaps need to be corrected.
200	3.3; 635	Please consider including assumptions and caveats at the top of table 9 so the reader understands how these data points should/shouldn't be interpreted.
201	3.3; 636	Please consider looking into Aii roadmap to net zero report linked below to sense check climate figures included here. See figure 5, p11in the Aii report linked to below. Source: ROADMAP TO NET ZERO: DELIVERING SCIENCEBASED TARGETS IN THE APPAREL, World Resources Institute and Apparel Impact Institute (Aii): roadmap-net-zero-delivering-science-based-targets-apparel-sector.pdf
2279	10.2.1; 5542-5549	We acknoledge that in literature, chemical fibres is an umbrella term for both, man-made fibres using cellulose derived from natural polymers sources for instance from wood and man-made fibres from synthetic polymers based on petroleum. However, we want to stress that the environmental impact of these two fibres are very different. The ESPR should encourage the substitution of fossil-derived materials with renewable alternatives. By incentivising the uptake of wood-based cellulose fibres, Europe could significantly decrease its dependence on imported raw materials and reduce GHG emissions, arising both from the transport and the manufacturing of textiles in extra-EU counties. In Europe, the sourcing of forest biomass is framed by both European and national legislations, as well as market-based certification systems, which ensure the product is not contributing to deforestation or biodiversity loss, but rather to sustainable forest management, increasing the abilities of our forests to act as carbon sinks. Additionally, the uptake of wood-based cellulose fibres can also deliver on other important environmental objectives, such as the need to control and prevent pollution. Wood-based cellulose fibres are 100% renewable, recyclable and biodegradable. They also have a low water footprint during the growth phase and do not lead to soil depletion but are rather capable of reversing soil degradation and erosion.

ID	Section & line	Comment
2280	10.2.1; 5542-5545	• Instead of the term “man-made chemical fibres”, please consider using “man-made cellulose fibres” for the consistency • Also biobased alternatives can be used as raw material, such as wood. [https://www.upmbiochemicals.com/glycols/meg/ and https://www.upmbiofuels.com/chemicals/upm-bioverno-naphtha-for-chemicals/]
2281	10.2.8; 5744-5748	Transitioning to a circular model begins before the “collecting” phase – namely with proper disposal of textile waste. In order for textile waste to be eligible for the other “waste management avenues” it should be discarded in the proper separate collection point and not be contaminated from the beginning or from contact with other textile waste. Therefore, raising awareness of the general public on how to properly dispose textile waste is a precondition for the other steps in the circular model.
2282	10.2.8; 5760-5761	The assumption that “the primary solution to the current textile waste issue is recycling, coupled with waste reduction efforts” is not fully right. While waste reduction efforts are certainly a key solution, another crucial solution to the current textile waste issue is handling every piece of textile waste at the highest possible level of the waste hierarchy. This whole section of the study is mainly recycling-focused, and completely omits preparation for reuse operations, which are the most established from a technological and economical point of view and most beneficial environmentally. This is tightly connected to the discussion in section 10.6.1.5 “Attitudes towards second-hand apparel purchase”. Proper and detailed sorting for reuse can satisfy consumer demands at different price points and accelerate the other two drivers for purchasing second-hand, namely “sustainability/environmental consciousness” and “preference for unique, vintage pieces”.

Annex 5. Comments on legislation & standards

Table 28. Comments on legislation & standards

ID	Section & line	Comment
202	4 Legislation, strategies and voluntary environmental labels relevant for the textile sector; 639	A subchapter on OECD strategies should be added. "The OECD (Organisation for Economic Co-operation and Development) is a forum and knowledge hub for data, analysis, and best practices in public policy." It regularly publishes standards on responsible business conduct applicable to the apparel sector (Guidelines for MNEs – Organisation for Economic Co-operation and Development: https://mneguidelines.oecd.org/responsible-supply-chains-textile-garment-sector.htm). Additionally, it should be noted that throughout the PS, references are made to OECD studies (BREFs), as well as OECD analytical methodologies (test methods: OECD 301 A-F (60% degradability), OECD 310 (60% degradability), OECD 302 A-C (70% degradability) or equivalent).
209	Section 4.1.2. EU legislation; lines 875 to 880 on EPR schemes.	Additional recommendation: Incentivise with “polluter pays principle”: Modulating Extended Producer Responsibility (EPR) fees based on a product’s recyclability and recycled content is a practical way to better apply the “polluter pays principle”. Just as EuRIC and Valpack, Resortecs advocates for mandatory harmonised minimum criteria for EPR fee modulation at the EU level, which would support more circular products across Europe, improve the internal market’s functioning and allow for member states and PRO’s to further raise the bar when it comes to ecomodulation and circular design. Further reading: • Driving a Circular Economy for Textiles through EPR (https://changingmarkets.org/wp-content/uploads/2023/08/Driving-a-CE-for-Textiles-through-EPR-Final-Report-v2.0.pdf)

ID	Section & line	Comment
		• The importance of eco-modulation for EPR (https://www.valpak.co.uk/the-importance-of-eco-modulation-for-epr/) • EU Plastics Recyclers' Roadmap: For a competitive & innovative industry (https://euric.org/images/Position-papers/EuRIC%20EPRB%20-%20EU%20Plastics%20RecyclersRoadmap.pdf)
210	4.1.2; 896-900	The legislative proposal on common rules promoting the repair of goods was approved in June 2024 and published in the Official Journal of the EU on 10th July 2024. Thus, it should not be part of section 4.1.2 on "EU legislation in preparation", but should go to section 4.1.1 on "Existing EU legislation".
211	4.2; 901	Sweden have decreased VAT on repartions of certain products i.e textileproducts. https://www4.skatteverket.se/rattsligvagledning/edition/2025.1/395014.html
212	4.2; 903-908	Latvia is missing in the list of EU Member States that already established an EPR scheme for textiles (on top of France, the Netherlands and Hungary). Latvia is implementing a country-specific EPR law for textiles since 1st July 2024.
213	Chapter 4; 915	Please note NL Denim Deal has ended. Learned lessons will be shared in seperate document. The report with the results and learned lessons: https://open.overheid.nl/documenten/dpc-5ca80c756f92ce053cf75a35461f6be644f3c5b3/pdf
214	4.3; 928-944	Concern: Negligence to Sustainable Development Goals (SDGs) Context: A balanced regulatory framework must align with global sustainability objectives, particularly the United Nations Sustainable Development Goals (SDGs), which prioritize poverty alleviation, food security, gender equality, and economic growth. While laws, directives, and environmental regulations are essential, they must not overlook the socioeconomic role of natural fibers like cotton, which is a cash crop supporting millions of smallholder farmers worldwide. The global average landholding size per cotton farmer is just 1.33 hectares, highlighting how cotton production is a critical livelihood for rural communities. Out of the 23.9 million cotton farmers globally, 10.3 million are women (43%), representing a substantial share of the workforce and emphasizing the critical role women play in the industry and importantly addressing the various objectives of Sustainable Development Goals (SDGs). This demonstrates cotton's direct contribution to SDG 5 (Gender Equality), ensuring income generation and economic resilience for women in agricultural economies. As the world's most important natural fiber, recognized by the United Nations Food and Agriculture Organization (FAO), cotton is fundamental to global economic stability and sustainable textile production. The UN's designation of October 7 as World Cotton Day further underscores its significance in sustainable development and trade policies. A better alternate: Regulations, directives, and policy frameworks must be aligned with the United Nations Sustainable Development Goals (SDGs), ensuring that environmental considerations do not come at the expense of economic and social sustainability. Cotton, a cash crop grown by millions of smallholder farmers with an average farm size of just 1.33 hectares, plays a vital role in global rural economies. Its production directly supports poverty reduction, food security, and gender equality with women constituting a major share of the workforce in planting and harvesting activities. Given its significant contribution to sustainable agriculture and global trade, policies must prioritize a fair and equitable assessment of cotton within sustainability regulations, ensuring that natural fibers are not disadvantaged in comparison to fossil fuel-based textiles. Sources: https://sdgs.un.org/goals Kranthi, Keshav. Cotton Databook 2023

ID	Section & line	Comment
		Ruiz, Lorena. Gender Dynamics in the Cotton Sector: A Global and Regional Analysis. October, 2024. Discovery Natural Fibers Initiative. DNFI World Natural Fiber Update January 2025. https://dnfi.org/dnfi-world-natural-fibre-update-january-2025 https://www.un.org/en/observances/cotton-day
216	4.3; 939	The UNEP roadmap towards a sustainable and circular textile value chain includes the use of sustainable or recycled fibres: “Textile raw materials are shifted to sustainable or recycled sources. There is a need to rapidly scale new and more sustainable production and cultivation practices for virgin raw materials, and to mainstream fibre-to-fibre recycling through improved practices as well as investment in waste management systems and infrastructure.” The use of circular input, i.e. sustainably grown, renewable material and recycled content, should be further incentiviced and promoted. Source: UNEP. Sustainability and Circularity in the Textile Value Chain - A Global Roadmap. 2023. https://www. unep.org/resources/publication/sustainability-and-circularity-textile-value-chain-global-roadmap
218	4.4; 945-996	We support the use of standards.
220	4.4; 946-947	CEN-CENELEC is currently working on several standards, which are worth mentioning in this part of the study, on top of the list of the CEN working groups in Table 66 in Section 10.3. We welcome that the following CEN working file is rightly specified in table 74 under line 5808: “Textiles – Circular Economy for Textile Products – Categorisation of and requirements on non-virgin input materials” that defines the circular input flows and sets out rules for secondary input materials used in textiles and textiles products. Furthermore, the following working files in CEN are not mentioned in the study, and should be considered: - “Textiles – Circular Economy for Textile Products – Minimum requirements for clothing” that aims at setting a “quality level for garments dependent on their intended use with the aim to keep them in the use phase as long as possible, covering the reuse, repair and refurbish. This includes trims and fabrics to produce garments.” - “Textiles — Circular economy for textile products— General principles and guidance“ that lists circular economy principles and provides

ID	Section & line	Comment
		guidance for circular economy across the textile value chain and circularity for textile products. - "Textiles — Circular economy for textile products — Design for circularity" provides guidance for designing textiles and textile products that are in line with principles of circular economy and supporting circular business models. - "Textiles – Circular economy for textile products – Minimum requirements for bed, bath, kitchen and table textiles" identifies minimum quality requirements for bed, bath, kitchen and table textiles for circular economy in the textiles chain. - "Textiles – Circular economy for textile products – Minimum requirements for workwear" sets requirements for a quality level for workwear garments dependent on their intended use with the aim to keep them in the use phase as long as possible, covering the reuse, repair and refurbish.
222	Legislation, strategies and voluntary environmental labels relevant for the textile sector; 983f; 1017ff	Line 983f: Typo: "Abraser" and not "abrader" Line 1017ff: Sums do not add up correctly: Sum for 2021 should be 199, sum for 2024 297.
224	4.5; 1035-1040	We recommend that focus is on officially recognized Type I Ecolabels in Digital Product Passport because the requirements here are LCA-based, have an independent third-party certification, develop criteria in an open and transparent process and set product specific requirements(textile). This will also be in line with other regulation under Green Deal, such as the Empowering Consumers Directive, where Officially recognised Type I Ecolabels are referred to as recognised excellent environmental performance. In addition, the ecolabels should be in line with the proposed Green Claims Directive and verified to be used on the European market.
2283	10.3 Supporting information about tests and standards in the textile industry; 5763 - 5570	There is no scientific consensus currently on how to measure fibre fragmentation/microfibre release throughout the lifecycle of a finished product. ● There are multiple methods to measure microfibre loss, but each has technical limitations, and no single method is universally accepted, setting an ecodesign requirement might inadvertently favour one method over others. This could unintentionally impose proprietary or limited-access technology, violating the principle of ensuring fair access to technology. ● Ecodesign requirements should be based on solid, well-researched evidence. If any current method for measuring microfibre loss is inconsistent or unreliable, there's a risk of basing regulations on incomplete or flawed data, leading to ineffective or counterproductive requirements. ● Prematurely setting a requirement when measurement methods are still evolving could stifle innovation. Manufacturers and researchers might feel locked into current methods rather than encouraged to develop more accurate, universally applicable solutions. ● For any requirement to be effective, it needs to be enforceable and measurable. If the measurement methods have significant limitations, enforcement becomes difficult, which undermines the requirement's credibility. The current limitations of the test methods mean it is inappropriate to use them for regulation of finished products at the consumer level (e.g. the test methods only test fabric samples, not the finished product).
2284	10.3; 5763	Table 66 – "Working Groups with the involvement of several scientific committees in CEN/ TC 248": it is mentioned that the working group WG 39 is "under development", although in fact this Working Group is fully operative; the norms however are under development.

ID	Section & line	Comment
2285	10.3 Supporting information about tests and standards in the textile industry; 5770	For the row labeled "Colour fastness to saliva and perspiration for children 3 years and younger," the TYPE column should indicate "standard" or "test method" rather than "Ecolabel," since Ecolabel does not represent a test type.
2286	10.3; 5797	The following standards could be added to the table. Per- and polyfluoroalkyl substances (PFAS)/ FprEN 17681-1 (2024)/ Textiles and textile products - Per- and polyfluoroalkyl substances (PFAS) - Part 1: Analysis of an alkaline extract using liquid chromatography and tandem mass spectrometry/ Standard/ Draft Per- and polyfluoroalkyl substances (PFAS)/ EN 17681-1 (2022)/ Textiles and textile products - Organic fluorine - Part 1: Determination of non-volatile compounds by extraction method using liquid chromatography/ Standard/ Published DMFa/ EN 17131:2019/ Textiles and textile products - Determination of dimethylformamide (DMF), method using gas chromatography/ Standard/ Published DMFa and other aprotic solvents/ prEN 17131-1/ Textiles and textile products - Determination of certain residual solvents - Part 1: Determination of aprotic solvents, method using gas chromatography/ Standard/ Draft Hexavalent chromium/ ISO 17075-1:2017/ Leather — Chemical determination of chromium(VI) content in leather. Part 1: Colorimetric method/ Standard/ Published Hexavalent chromium/ ISO 17075-2:2017 Leather — Chemical determination of chromium(VI) content in leather. Part 2: Chromatographic method/ Standard/ Published Bisphenols/ ISO/CD 23377/ Footwear — Critical substances potentially present in footwear and footwear components — Test method to quantitatively determine certain bisphenols in footwear materials/ Standard/ Draft Bisphenols/ ISO 11936:2023/ Leather — Determination of total content of certain bisphenols/ Standard/ Published

ID	Section & line	Comment
		PAHs/ EN 17132:2019/ Textiles and textile products - Determination of Polycyclic Aromatic Hydrocarbons (PAH), method using gas chromatography/ Standard/ Published PAHs/ ISO 16190:2021/ Footwear — Critical substances potentially present in footwear and footwear components — Test method to quantitatively determine polycyclic aromatic hydrocarbons (PAHs) in footwear materials/ Standard/Published Flame Retardants/ ISO 17881-1:2016 Textiles — Determination of certain flame retardants. Part 1: Brominated flame retardants/ Standard/ Published Flame Retardants/ ISO 17881-2:2016/ Textiles — Determination of certain flame retardants. Part 2: Phosphorus flame retardants/ Standard/ Published Flame Retardants ISO/TR 17881-3:2016 Textiles — Determination of certain flame retardants. Part 3: Chlorinated paraffin flame retardants/ Standard/ Published
2287	10.3 Supporting information about tests and standards in the textile industry; 5803	Various methods exist to quantify microfibre loss from finished fabrics. The TMC Test Method, ISO 4484-1 and AATCC TM212 are all validated and standardised test methods used to measure microfibre loss from fabric samples during simulated laundry, but they face several limitations: • Lack of Material Differentiation: The test methods cannot distinguish between different types of fibres in the final collected sample. This may include fibres from the tested fabric, external contamination, or other materials. • Implementation Challenges: Currently, these test methods are not routinely performed in textile facilities Additionally, testing all finished products and/or fabrics remains impractical due to the high cost and limited availability at accredited labs. • Limited Product-Level Applicability: The tests measure microfibre loss from a fabric swatch during the first wash only. Significant assumptions must be made to apply this data to the whole product lifecycle, increasing the uncertainty. Methods to measure loss from entire garments are problematic due to practicality, time, inefficiencies and a lack of standardisation of test washing machines and their settings. • Environmental Impact: The test methods measure microfibre loss from fabric samples, but the data does not provide information on the environmental impact of microfibres. Biodegradability, chemical load and toxicity will all affect the microfibre impact within a specific environment (marine, freshwater, terrestrial, air) and should be considered in addition, and separately, to quantity. Therefore, the test methods measure microfibre loss but not the microfibre release to the environment.

ID	Section & line	Comment
		▪ Impact Pathways: Only the release of microfibres to water during an initial simulated laundry wash is considered. No test method currently exists to measure microfibre loss to air through friction during wear or manufacture. A standardised test method to quantify microfibre release to wastewater is currently under development. These limitations collectively create a critical challenge for companies addressing microfibre release. The challenge stems from main factors, such as: o The lack of a practicable test methodology to measure fibre fragmentation at the product level o Lack of understanding of the different environmental impacts of different fibre types o Limited depth of knowledge of the factors contributing to microfibre shedding and their mitigation solutions These gaps in knowledge make it difficult for brands to implement effective strategies to reduce microfibre release from their products.
2288	10.4.1; 5849-5856	The report states that the Commission promotes the establishment of PEF-CRs to facilitate transparency and facilitate comparisons between Environmental Declarations (ISO Type III environmental labels), and that their use in business-to-consumer communication is not precluded. The JRC should note the limitations of the PEF method as applied to apparel and footwear products, notably the use of average and outdated secondary data, issues with boundaries, weighting and geoegraphical differences, as well as the overall governance of the development of the PEF-CR for A&F which is a 'pay to play' model – with companies who pay given voting rights in the Technical Secretariat. If the PEF is taken up in policy this has severe democaratic implications.
2289	10.4.1; 5849- 5856	The report states that the Commission promotes the establishment of PEF-CRs to facilitate transparency and facilitate comparisons between Environmental Declarations (ISO Type III environmental labels), and that their use in business-to-consumer communication is not precluded. The JRC should note the limitations of the PEF method as applied to apparel and footwear products, notably the use of average and outdated secondary data, issues with boundaries, weighting and geoegraphical differences, as well as the overall governance of the development of the PEF-CR for A&F which is a 'pay to play' model – with companies who pay given voting rights in the Technical Secretariat. If the PEF is taken up in policy this has severe democaratic implications.
2290	10.4.2; 5859	We encourage the European Commission to include Recycled Content Standard and Global Recycled Standard developed by Textile Exchange to the list of standards included in the report.
2291	10.4.2 Voluntary environmental labels used in EU - Table 76 - Environmental labels used in 2021 in Europe: ISO type and addressed topics; 5859	Given that only ISO Type I environmental labels (ISO 14024:2018) can be classified as Ecolabels, the first column, 'Ecolabel,' should be renamed 'Environmental Label.' Furthermore, for transparency, labels marked as "NA" (not available) in the "ISO TYPE" column should be presented separately. Ideally, Table 76 should be divided into four tables: one for Type I labels, one for Type II labels, one for Type III labels, and one for labels lacking ISO type information.
2292	10.4.2 Voluntary environmental labels used in EU - Table 76 - Environmental labels used in 2021 in Europe: ISO type and addressed topics; 5859	The "Criteria" column for the EU Ecolabel should be updated to include the following aspects: pesticides, herbicides, fungicides, ectoparasiticides, GMOs, air emissions, fitness for use, and corporate social responsibility (Source: EU Ecolabel criteria for textile products, Commission Decision 2014/350/EU of 5 June 2014).
2293	10.4.2 Voluntary environmental labels used in EU - Table 76 - Environmental labels used in 2021 in Europe: ISO type and addressed topics; 5859	Footnote 198: The correct link to the EU Ecolabel website is https://environment.ec.europa.eu/topics/circular-economy/eu-ecolabel_en, not https://www.ecolabel.net/en/belgelendirme/.

ID	Section & line	Comment
2294	10.4.2; 5859-5860	Table 76: The following should be added, as Nordic Swan Ecolabel also has requirements in these areas: Forests, animal welfare, microplastic (loss of fibre fragments)*. * In criteria for "Textiles, skins/hides, and leather" loss of fibre fragments must be tested and at present no limit is set. In criteria "Supplies for microfibre based cleaning" loss of fibre fragments must be tested and a limit is set.

Annex 6. Comments on market analysis

Table 29. Comments on market analysis

ID	Section & line	Comment
228	Market analysis; 1111; 1502	Line 1111: It would be interesting to know, why there was no subsequent agreement to keep protecting the European market. Please add. Line 1502: What are "specific goods"? Please add a definition or put example in brackets in order to increase understanding.
229	5.1 The global market; 1,141 ff.	Figure 4 (p. 44, line 1,141) shows secondary data. We kindly remind the JRC to preferably use primary data instead of these aggregated data, where the reference year and assumptions taken are no longer reported. The data for the geographical breakdown of global apparel production and consumption is not generated by UNEP 2020 as the citation suggests. We think the source is from Quantis for a report in 2018, which based the geographic allocations according to production step, e.g. for fibre production, yarn preparation and fabric production, on location data came from The Fiber Year report and The Fabric Year report (from the Fiber Year GmbH, both from 2017). It is understood that the description of the environmental impact and the selection of relevant production countries is based on this aggregation, but it is important that the JRC verifies with primary and more recent data the major producing countries. Trade statistics might be used here, e.g. bilateral imports by detailed HS codes from the WTO database (https://stats.wto.org/?idSavedQuery=09f01fa6-a7ee-41df-ada3-1a841ca88f06).
230	Chapter 5; 1145	Pls check our research on second hand export: https://www.circle-economy.com/resources/destinations-of-dutch-used-textiles
232	Chapter 5; 1281-1383	The information on textile fibres and composition is based on Textile Exchange. Important to recognise is that these figures refer to fibre composition for all textile products (including geotextile, textiles used in furniture, etc. etc.). The composition of apparel is different than the general composition. For instance one may expect a higher proportion of cotton or wool in apparel and while also in apparel the use of polyester is ghrowing, it is not as high as the overall general figures from figure 13 suggest. In this respect figure 17 is relevant, since it shows the importance of cotton. Make a remark somewhere in this text that composition of apparel is differnt than overall composition of fibres in all textile products.
235	5.4; 1282	Please correct the paragraph with the following up-to-date data: In recent years, the estimates of textile fibre production followed an increasing trend going from 109 million tonnes in 2020 to 124 million tonnes in 2023 (Textile Exchange, 2024). In 2023, approximately 57.2% of these fibres were polyester, 19.9% cotton, 6% man-made cellulosic and 5.3% polyamide (Textile Exchange, 2024).

ID	Section & line	Comment
236	5.4.1; 1284	In discussing the use of different fibres, it is important to mention the distinctions between different cultivation methods, such as organic vs agro-ecological vs conventional cotton. Such a distinction is important in order to accurately assess their respective impacts.
237	Table 15; 1289	Need to update with 2024 Materials Market Report data – please see complementary document sent by email.
238	5.4.1; 1289	There is an updated version from Fiber Year for 2024 (May).
240	5.4.1 (page 53); 1289	The fiber statistics, particularly for MMCFs and their respective representatives in the field of regenerated cellulose fibers, appear to be somewhat inaccurate. To the best of our knowledge, the most reliable data is provided by The Fiber Year GmbH, with the latest version available as of May 2024.
241	Figure 13, p.53; 1294-1296	We advise the European Commission and the JRC to replace with the new figure from Textile Exchange 2024 report and Online dashboard and update the caption. Please see complementary document sent by email.
242	Table 16, p.54; 1307	Please remove this table from the report. This is from the Material Change Insights 2021 report published in June 2022 and represents a subset of data based on usage and does not represent the global production locations.
243	5.4.1; 1307	There is an updated version from Fiber Year for 2024 (May).
244	5.4.1 (page 54); 1307	The statistics on fibers, especially for MMCFs, seem to lack accuracy. Based on our knowledge, the most reliable data is published by The Fiber Year GmbH, with the most recent edition available as of May 2024.
245	5.4.1; 1326-1330	We recommend more data and information about recycled fibres, i.e including data from 2023 and 2024, and cost of recycled fibres vs virgin fibres. Also, we advise including the applicability of specific recycled fibre types for specific end articles and uses, i.e. where they are more or less feasible to use depending on fibre degradation versus durability requirements.
246	Table 21 - p.55; 1331	Please consider replacing the current table with the table provided in the complementary document sent by email that includes updated data and 2023 data.
247	5.4.1; 1335-1344 Figures 14 and 16	Fibre consumption in 2020 (for MMF + cotton) is most prominent in North America, China, and Western Europe, with per capita consumption figures of 31 kg, 22 kg, and 20 kg, respectively (data from Wood Mackenzie Chemicals). However, textile recycling activities are currently more concentrated in Europe and North America than in China. The current textile recycling situation in China is expected to change as global dynamics evolve, driven by increasingly stringent production policies, the management of textile products at the end of their life cycle, and the growing demand for sustainability in the packaging industry.
248	5.4.1; 1336 ff, figure 14, figure 16	The textile recycling activities are currently more concentrated in Europe and North America than in China. The current textile recycling situation in China is expected to change as global dynamics evolve, driven by increasingly stringent production policies, the management of textile products at the end of their life cycle, and the growing demand for sustainability in the packaging industry.
250	5.4.1; 1339	Updated mapping of sorting and recyclling plats in Eu is available here: https://www.ivl.se/english/ivl/press/press-releases/2023-02-15-europes-capacity-for-textile-recycling-mapped.html Sustainable clothing futures – Mapping of textile actors in sorting and recycling of textiles in Europe: https://www.ivl.se/english/ivl/publications/publications/sustainable-clothing-futures---mapping-of-textile-actors-in-sorting-and-recycling-of-textiles-in-europe.html
251	5.4.1; 1339	In this context it is important to look at the maturity of the existing recycling plants in Europe: An important study:

ID	Section & line	Comment
		Maturity of fibre-to-fibre recycling in Europe Assessment of recycling companies in Europe https://ivl.diva-portal.org/smash/get/diva2:1933003/FULLTEXT01.pdf This study aims to assess the maturity of a selection of existing European fibre-tofibre recycling companies and to explore the future of post-consumer textile recycling. At present, only 1% of textiles fibres on the global market originate from recycled pre- or post-consumer textiles. Increasing textile recycling aligns with the EU strategy for sustainable and circular textiles and is necessary for creating a more sustainable textile industry. This study assessed six textile recycling companies across Europe, evaluating their level of technology readiness level (TRL), business readiness level (BRL), and customer readiness level (CRL) based on the KTH Innovation Readiness Level framework. The results indicate that mechanical recycling companies are generally more mature than chemical ones across the three parameters, with technology being the most mature and customer readiness the least. Scaling fibre-to-fibre recycling requires not just a high technical readiness level, but also a sustainable business models and strong value chain integration. A collaborative effort between large and small companies is essential to build a more sustainable textile industry that reduces virgin fibre dependence and promotes resource efficiency. Additionally, regulatory support is essential for recycling companies to scale production and compete effectively with virgin fibres.
252	Figure 14 p.56; 1345	Please remove the reference to Textile Exchange and just cite Sorting for Circularity.

ID	Section & line	Comment
253	5.4.1; 1350	There is not a large scale in it yet because everything is in its infancy. More development and innovation resources are needed, as well as large investment capital, to realize it and scale up. Clearer sorting criteria and early classification as raw material. This facilitates research and innovation.
254	5.4.1 (page 56); 1350-1351	The capabilities of recycling plants are largely determined by the types of textile waste available for processing. Throughout this transition, it is crucial to ensure that materials not classified as commodities are not marginalized or unfairly labeled as non-recyclable. This risk arises primarily when the volume of waste from these materials is insufficient or negligible, making it economically unviable to invest in research, development, and the necessary recycling infrastructure.
255	Figure 14, p.56; 1354	Please remove the reference to Textile Exchange and just cite Sorting for Circularity.
256	Figure 16, p.57; 1358	Please remove the reference to Textile Exchange and just cite Sorting for Circularity. This is from the Material Change Insights 2021 report published in June 2022 and represents a subset of data based on usage and does not represent the global production locations.
257	5.4.1; 1373-1375	The statement references the work published by Huygens et al. in 2023, which is likely based on the best available technology before 2023 and does not yet incorporate future advancements. This raises the question of how effective these emerging technologies will be. With increasing development of chemical recycling technologies, we do expect a future balance between mechanical and chemical recycling processes based on the criteria economics and sustainability for the specific waste type and quality.
258	5.4.1; 1373	The statement references the work published by Huygens et al. in 2023, which is likely based on the best available technology before 2023 and does not yet incorporate future advancements. This raises the question of how effective these emerging technologies will be. With increasing development of chemical recycling technologies, we do expect a future balance between mechanical and chemical recycling processes based on the criteria economics and sustainability for the specific waste type and quality.
260	5.4.2; 1388	In discussing the use of chemicals for different fibres, it is important to mention the distinctions between different cultivation methods, such as organic vs agro-ecological vs conventional cotton. Importantly, for the use of chemicals indicated for the production of 1kg of cotton, it is not clear whether this is conventional cotton or not. Organic and agro-ecological cotton and other cultivation methods would use less chemicals by definition.
261	5.4.4; 1443	It is incorrect that hemp belongs to the two most water demanding textile fibres. In the following table 25 wool is the second most water-demanding fibre and not hemp.
262	5.4.4; 1443	With reference to the statement “Cotton and hemp are the most water-demanding among the textile fibres”, I think it’s a bit misleading. Although this is true in absolute terms, hemp’s water consumption is heavily lower than cotton (89l/kg against 1559 of cotton), if we consider vegetable fibers, and even lower than wool if we consider protein fibers (89l/kg against 1559 of 530). Furthermore, according to European Confederation of Flax and Hemp (2022); Schumacher et al. (2020); Muthu et al. (2012); Turenen & van der Werf, (2006) hemp cultivation generally requires less water and has a lower overall environmental impact, so it would be unfair to state is one of the most water demanding crop. To clarify a bit further, the most significant water usage happens during the degumming (or retting) process. Nonetheless, the amount of water consumed during degumming such as warm water retting or bio-retting corresponds to only 1 % of the water used in cotton irrigation (Turenen and van der Werf, 2006). Consequently, there is surely a need for alternative degumming processes (Lyu et al., 2021), however many empirical trials are underway, using bio-enzymatic fiber maceration and a series of degumming processes under controlled temperature and pressure (HANAPA: https://greenorganicsfarm.it/progetto-hanapa/; SYLFIB https://sylfib.com/en/la-tecnologia/). Ultimately, I would suggest to reconsider that sentence, mentioning only cotton as the most water-demanding fiber.
263	5.5; 1538	A newly published report from the Swedish Trade Federation's showing that the secondhand shopping in the retail sector is a growing market mainly driven by two factors: sustainability and economy. Examples from the study: 39% of 18 to 29-year-olds buy second hand during a month. Every second consumer buys fashion second-hand. A trend that decreases the older you get.

ID	Section & line	Comment
		Link https://www.svenskhandel.se/api/documents/lih-2024-digital.pdf
264	Characteristics of the value chain; 1551	It is important to reflect the full reality and complexity of the value chain and the efforts already undertaken by the industry in terms of sustainability. As a matter of fact, the assumptions should be underpinned much more by scientific or commercial/cost evidence.
265	Characteristics of the value chain; 1591	The PS should consider much more the need for traceability and for market surveillance of imported products to ensure a level playing field of European and third country producers: the lack of tools to verify conformity to eco-design requirements for fibres and textiles produced in third countries may put the burden of the new regulation only on European companies. Ex-ante verifications would be needed.
266	5.6; 1595 - 1599	The statement that most used textile apparel exported in Africa are "dumped via informal waste streams" is highly debatable. Although, many African countries (such as Ghana) are facing significant challenges in managing its solid waste (including textile waste) (with only about 10% collected and disposed of at designated sites, in Ghana – UNDP, 2022), there is no evidence behind associating the concept of "dumping" (which typically refers to the disposal of waste in an irresponsible or uncontrolled manner) with the second-hand clothing sector. In fact much of the used textile apparel exported to Africa is not simply discarded but is part of a larger industry of second-hand clothing, where quality items are sorted and resold. The process involves a structured market, such as in Ghana's Kantamanto Market, where goods are filtered, sold, or recycled. The narrative of "dumping" overlooks these well-established trading systems and the economic activity they generate. According to GUCDA (2024), "textile waste makes up 1.7-2.2% of all waste in Accra (Ghana) and a small minority of that would viably be second-hand clothing". Furthermore, they add that the proportion of waste in imported bales is on average up to a maximum of 5%. Taking the example of Ghana, Circle Economy (2023) made clear that 4% of the imported used textiles are unsellable and thus becoming waste, while "the best quality items accounting for about 20% of each bale. The second selection—around 30–40% of the bale— may have signs of wear. The third selection—worn, poor-quality pieces—accounts for roughly 40% of each bale and only 10% of retailers' income."
268	Lifespan; 1662	Targets and metrics for circularity should be adapted to the textile industry and not only taken over from past experiences in other industries (e.g. the short lifecycle of packaging the long lifespan of synthetic fibres vs.). Eco-design requirements need to be measurable, based on standards recognized by the industry, which can be adequately monitored and verified by third parties.
269	5.8 (page 68); 1669 - 1673	Given the imprecise understanding of product lifespan and the significant variations among the different estimations presented in Tables 33 and 34, it is surprising that subsequent chapters rely on high-resolution values from physical testing as measures of actual product longevity.
270	5.8 Lifespan of textile apparel; 1682 table 34	tight and hosiery should not be group with socks. Some thin tight and pantyhose are not worn 50 or 70 days. Contruction of hosiery is not same than sock . So hosiery should be in separate section than socks because very different in technique and use (not same kind of washing/ drying..)
271	5.9; 1691-1694	Officially recognised type I ecolabels certify the final product, ensuring that consumers have credible and easily accessible guidance on the environmental performance of products they purchase. To empower consumers to make informed and sustainable choices, as intended by the EU, it is crucial that information about such certifications is integrated into the Digital Product Passport (DPP), including symbol/logo as this is what consumers are used to orient themselves by. Trustworthy general claims make it easier for consumers to make informed and sustainable choices. We recommend that focus is on officially recognized Type I Ecolabels in Digital Product Passport because the requirements here are LCA-based, have an independent third-party certification, develop criteria in an open and transparent process and set product specific requirements(textile). This will also be in

ID	Section & line	Comment
		line with other regulation under Green Deal, such as the Empowering Consumers Directive, where Officially recognised Type I Ecolabels are referred to as recognised excellent environmental performance. In addition, the ecolabels should be in line with the proposed Green Claims Directive and verified to be used on the European market.
2295	Table 78; Number of textile recycling plants	Solvent based thermomechanical recycling of acrylic which operates at full scale (TRL:9) is missing from this list.
2296	SI; 5871; 7907 ff	Line 5871, table 77: Table77: in the view of future increase of recycling fibres needs it might be interesting to have a table with potential plants or plants that already run at very small scale and have the pontential to increase volume. In AT we have 2 construction companies, that might be intereseting to contact in order to identify new recycling plant locations in Europe: EREMA https://www.erema.com/de/presse-news/erema-praesentiert-mit-intarema-fibrepro-iv-neue-loesung-fuer-pet-faser-zu-faser-recycling--3237/ and Starlinger https://www.starlinger.com/de/recycling-technology/polyester-faser?selected=512&cHash=a59dbf317d908024c91547a4de477496 Line 7907ff: This study links to the derogation of unsold conumer product, derogation number b) "damage caused to products as a result of their handling, or detected after products have been returned, which cannot be repaired in a cost-effective manner" (Document provided to the EDF Feb 2025). Interestingly only ES, RO, IR, SWE, IT, und RO websites were screened. It seems obvious, that reparability will not be a very effective policy measure if prices for repair actions remain that high.

Annex 7. Comments on user behaviour

Table 30. Comments on user behaviour

ID	Section & line	Comment
272	6; 1695	We suggest a recent study on 'Consumer views on Circular Textiles', Annamaija Huovila, VTT. 2024 Consumer views on circular textiles - VTT's Research Information Portal - https://cris.vtt.fi/en/publications/consumer-views-on-circular-textiles
273	User behaviour; 1695	1. There is little weight on overconsumption and a "Less but better" approach As part of the actions cited in their Textile Strategy, the European Commission announces that they will "reverse overproduction and overconsumption (of textiles)", with the objective that "fast fashion is out of fashion". This action is urgently needed, since "EU consumption of textiles has, on average, the fourth highest impact on the environment and climate change, after food, housing and mobility. " (Textiles strategy - European Commission; https://environment.ec.europa.eu/strategy/textiles-strategy_en) The Environment Programme of the UN says: "Fast fashion, the trend for rapidly changing clothing lines at low prices designed to encourage consumers to buy more and keep their clothing for short periods, currently defines major parts of the fashion industry. Reducing consumption where there is overconsumption, and decoupling material inputs from business value will be vital in making the industry more sustainable, and innovative customer offers and transformation in business models will be needed to achieve that decoupling." (UNEP, 2020;

ID	Section & line	Comment
		https://www.unep.org/resources/publication/sustainability-and-circularity-textile-value-chain-global-stocktaking) Likewise, it appears that the EU Commission will increasingly look into who is benefiting from this current system, and who is losing: In February 2025, the Commission communicated that they are set to tackle "challenges with e-commerce imports" (Tackling challenges with e-commerce imports - European Commission; https://commission.europa.eu/news/tackling-challenges-e-commerce-imports-2025-02-05_en), saying that many imported products were "non-compliant with EU laws, raising concerns over harmful products entering the EU, unfair competition for compliant EU sellers, and the environmental impact of mass shipping. ". Tellingly, the Commission's webpage communicating this announcement is illustrated with a picture of a parcel containing a pair of shoes – hinting at the fact that apparel and footwear play a major role in the rise of e-commerce. While the "Working document of the 2nd milestone" does address "overconsumption" (12 times), there is no separate section or chapter discussing this phenomenon. Nevertheless, the working document does come to the following interesting conclusions, in different sections of the draft report: • On the "transitory relationship with apparel" (or rather, disposal and the lack of interest in repairability) (lines 2110 ff.): "Consumers have a transient relationship with apparel, often disposing of items before they are worn out or broken (Harris et al., 2016). Reasons for this behaviour include overconsumption and the convenience of replacing unwanted items rather than repairing them. A lack of emotional attachment to the product is observed (Terzioğlu, 2021; EEA, 2022a)." • On reusability (lines 7139 ff.): "It must be noted, however, that reusability does not change overconsumption and overproduction patterns." (lines 7191 f.). • On product technologies in the context of waste generation: "the majority of the products consumed in EU are produced with the business models incentivising overconsumption and overproduction" (Lines 3406 f.) • On user behaviour: "many consumers may prioritize the thrill of the purchase over making thoughtful, sustainable choices, potentially leading to overconsumption." (lines 5972 f.). Recommendation: Discussing in a more comprehensive way and in a separate chapter the problem of overconsumption (and overproduction), and how ESP product parameters like repairability, reusability and product technologies can or cannot adequately address this core problem, would help to set the topic into perspective, and seems to be needed, considering the European Commission intends to reverse overproduction and overconsumption, and intends to use ESP as one way to do this. Following from this, the working document should also discuss business models that would incentivise "less but better" consumption of textiles in the EU. Such business models are most likely related to products that have a high value for the consumer.
274	6; 1695 to 2321	User behaviour: In Section 5.5 of the Preparatory Study the two main business models are described, one of them being the "consumer-led operation model, where the requests of the consumer are the centre of the business model". The textile or fashion industry is indeed probably the consumer goods industry that is most dependent on the consumption habits, and the individual preferences and behaviour of users. This makes it even more critical that the data on which this Section 6 is based is, for several very important aspects, outdated and not representative which calls into question the conclusions drawn from it (which in turn serve as the basis for defining ecodesign requirements). In our opinion it is crucial to have more up-to-date

ID	Section & line	Comment
		and more representative empirical data on important aspects and to conduct a dedicated study on consumer behaviour regarding textile products in the EU to be able to define effective measures.
275	6; 1695	6 1695 We suggest a recent study on 'Consumer views on Circular Textiles', Annamaija Huovila, VTT. 2024, Consumer views on circular textiles - VTT's Research Information Portal
277	6.1; 1710	A newly published study about user behaviour including an intersting textile flow shart showing a annual private textile flow and stocks (kg/capita): Hur många kilo extra har du i garderoben? Rapport Cxxxx https://ivl.diva-portal.org/smash/get/diva2:1861168/FULLTEXT01.pdf
278	6.1; 1721	Research reports that can be of interest while looking at LCA aspects connected to different fibers and production aspects: Mistra Furture Fashion Fiber Bible 1 & 2 1. Possible sustainable fibers on the market and their technical properties - the fiber bible part 1 https://mistrafuturefashion.mistraprograms.org/publikationer/Roos-D2.1.1.1-Fiber-Bible-Part-1_Mistra-Future-Fashion-2019.02-1.pdf 2. Environmental impact of textile fibers – what we know and what we don't knowthe fiber bible - part 2 https://mistrafuturefashion.mistraprograms.org/publikationer/Sandin-D2.12.1-Fiber-Bibel-Part-2_Mistra-Future-Fashion-Report-2019.03.pdf
279	6.1; 1724 Table 35	Reasons for returning apparel: size standardization could be explored.
280	6; 1724 Table 35	Concern: Aspect 1(Reasons for purchasing) in the table is too narrow. Aspect 9 Repairability is problematic. General comment: Missing attitudes relating to synthetics. Aspect 1 (Reasons for purchasing) needs to take into account gender differences, f ex that men more often than women acquire new apparel by being gifted items. Only looking at purchasing will not take into account much that enters the household and adds up in wardrobes. For aspect 9, 'Repairability' is not a good word, as apparel for the most part is repairable, with the exception of apparel that contains electronics or integrated elastane, or f ex pre-stressed denim. The idea here that repairable is something apparel should become, is an assumption with no data to back it. The table should also look at attitudes towards synthetics, as these come out as more environmentally friendly in PEF, while SIFO's research shows that Norwegian consumers prefer natural fibers and also regard them as better for the environment. https://clothingresearch.oslomet.no/?s=synthetics+natural+ There is also no agreement on how superior the performance of synthetics is, and there is growing concern around plastics/microplastics, in particular related to waste https://www.nature.com/articles/s41467-024-49441-4. A better way: Look at all forms of acquisition. Limit or find another way to describe issues around repair. We would also like to suggest that we

ID	Section & line	Comment
		start from the specific problems that the clothes have and which types of clothes have these problems. It is also important to take into account that if you want, for example, underwear to be more “repairable’”, an the elastic band needs to replace elastane in the fabric - this means that the clothes will become thicker, heavier and the waist more visible. All measures to increase "repairability" might also have other effects such as contributing to increasing environmental impact and also changing functionality/aesthetics. This should therefore only be done for garment types and materials where it is both a major problem and can be solved without creating new problems.
281	6.1; 1724 table 35	One of main reasons for returning apparel bought from online shops, is wrong sizing of apparel. Standardized size designation of clothes should be studied further.
282	Chapter 6; 1724 etc.	Pls check our research on consumer behaviour on: why they buy and if they are open to minimize their buying behaviour: https://open.overheid.nl/documenten/dpc-0836e490c8e74293d46f2233016741d9a7c20831/pdf Pls check our research on 2nd hand buying and the relation to buying (less) new garments. Relation is Not 1:1 https://www.milieucentraal.nl/media/xiqdgwun/milieu-centraal-2024-factsheet-tweedehands-kleding.pdf
284	6.2.1; 1751 - 1753	We see this as problematic: Why isn’t marketing as a main and important driver for overproduction discussed as a separate point? Why use a reference from year 2017 (very old) when Shein and Temu are more recent and much more relevant for the discussion? Aggressive marketing is increasingly being identified as a key driver for the massive increase in apparel sales (and discarding). This has been acknowledged by the French government, and Geneva city, but not sufficiently by JRC. However, JRC also writes: “Some companies opt to implement business models characterised by continuous novelty and disposable trends in constant change (Centobelli et 3772 al., 2022), designing their products for rapid trend turnovers through obsolescence and early disposal. Other companies, in contrast, implement business models with less frequent trend turnovers, focusing on product durability and reverse logistics. The number of seasons or trends that are placed on the market largely affects the environmental impacts. Rapid trend turnovers tend to drive consumers (directly or indirectly) to replace clothes, even when it is still not necessary from technical perspective.” Therefore: Data is urgently needed to understand how key aspects of business models influence how long items or collections must be sold at full price until they can be sold at reduced prices (on sale). Or how penalizing companies with frequent collection drops during the year, and a large proportion of the clothes sold with prices on sale, can reduce the companies’ and EU’s environmental impact. Discussing product-specific problems is very limited (and is also debatable), understanding if addressing this at a product level actually has any effect, should be top priority.
287	6.2.1; 1802	It might be of interest to take part of the results from a Swedish Consumer survey completed in 2020. 1000 respondents. Emissions of hazardous chemical substances during production (58%) Working conditions for those who manufactured the raw material or product (52%)Water, energy and resource consumption (45%)Climate (43%) Health – remaining chemicals in textiles (42%)Microplastics (31%) Other, namely (-) https://www.naturvardsverket.se/4a4394/globalassets/amnen/textil/konsumentundersokning-2020.pdf
288	6.2.2; 1837-1839	It's not all about "durability" but also comfort.

ID	Section & line	Comment
289	6.2.2 (page 75); 1837-1839	Perceived quality is not only closely linked to durability but also influenced by the choice of raw materials, pricing, and other factors. While the PS contains a comprehensive section addressing quality, the proposal for informing consumers about quality has been limited to physical durability. We fully recognize that the ESPR must prioritize the product aspects explicitly outlined in its text, including durability. However, it is essential to integrate relevant quality considerations into durability requirements to ensure a well-rounded approach. Clothing primarily serves the fundamental human needs of protection and comfort. Studies indicate that wear comfort is the most critical property of clothing, significantly shaped by fiber type and composition. Natural fibers—such as cotton, linen, and wool—have been utilized for thousands of years due to their inherent properties, setting a benchmark for comfort, particularly through effective moisture management. Even today, consumer preference often leans toward textiles made from natural fibers over synthetic alternatives. Comfort, particularly in casual and everyday wear, is strongly linked to a fiber's moisture absorption capacity, which in turn influences certain durability aspects. Durability requirements should inform rather than mislead consumers. Setting the highest possible durability thresholds without disclosing that this may come at the expense of comfort, biodegradability, and potentially health, overlooks crucial considerations. A balanced approach that acknowledges these trade-offs is necessary to ensure that consumers receive comprehensive and transparent information. References: 1) Song G 2011 Improving comfort in clothing (Woodhead Publ. Ltd.) ISBN 1845695399 2) Schytte Sigaard A and Laitala K. Natural and sustainable? Consumers' textile fiber preferences. Natural Fiber Competitivness and Sustainability 2022: 11 (2). https://www.mdpi.com/2079-6439/11/2/12
294	Chapter 6; 1933-1939 1960-1967	Pls check this research and understand that drivers for a person could be obstacles for another person. We suggest to make the text less explicit. Pls check especially page 41 about subconsiousness. Also please check the example and importance of self-efficacy https://www.rijksoverheid.nl/documenten/rapporten/2020/11/20/gedragsonderzoek-kleding. Please check page 2: //Duwtje: p2. Offering 2nd hand next to new does not clearly state decline in buying new. //Sandin: p363 under conclusions, starting at 'assumptions about the replaced ...of textile use and recycling' https://www.researchgate.net/publication/323423640_Environmental_impact_of_textile_reuse_and_recycling_-_A_review
295	6.2.5; 1936-1937	With reference to the statement that secondhand apparel purchase is guided by financial savings, eco-friendly practices and emotional attachment, Pera & Ferrulli (2023) suggest an interesting point of view in their study. More specifically, the authors claim that weather secondhand comes from a donation or a resell practice, in both cases there's a moral stance guiding people to make this choice - besides the utilitarian (financial savings) or emotional values -. According to the study, participants feel at fault for overconsuming textiles. Ideas such as "I would feel really bad to throw away something that could still be used" are recurrent in the study. In this context, both donation and resell emerge as counter-goodwill practices, able to cleanse one's consciousness, compensating for the initial 'sin'. Donation represents among participants an overall and recurrent desire to wipe one's conscience clean, a sort of 'fashion detox'. Same happens for resell. Since throwing something away seems wasteful and wrong, reselling to someone who will use them relieves that guilt and makes them feel clever about it. The reselling practice is perceived as an efficient practice able to blend personal

ID	Section & line	Comment
		utilitarian gains with collectivistic benefits. Ultimately, it's not only about utilitarian (financial savings) or emotional values, but it's also about a moral stance. So, you may consider inserting a further bullet point at line 1953 mentioning the moral value.
296	6.2.5; 1960 – 1967	There is an underlying assumption that second-hand replaces new apparel purchases or acquisitions. Studies have shown that those who buy second-hand also are those who buy more overall, and not necessarily less, new apparel. Also, countries with high second-hand purchases do not have a lower trade of new products. Suggestion: Find out more about replacement drivers, through new studies (which WRAP just did in a new publication on how replacement rates can be quantified). Do not assume that more second-hand effects the purchasing or acquisition of new products. Policy that increases something do not necessary decrease something else. The production and trade of too many new products are the main driver of the current environmental crisis. The quantities also affect the trade with second-hand products, making it increasingly less profitable. Quotas on import and regulation on marketing is there for a more effective avenue.
299	6.3.1 User behaviour during use: laundering practices; 2051-2056	We welcome the focus on microfibres (fibre fragmentation from both natural and synthetic fibres). However, the framing of the survey question about awareness of plastic pollution risks reinforcing a narrow focus on microplastics, potentially leading respondents to overlook the broader issue of fibre fragmentation. All fibres—natural, synthetic, and man-made cellulosic—shed throughout their lifecycle and during washing cycles and have the potential to contribute to environmental harm. It is crucial to raise public awareness of fibre fragmentation as a whole, rather than limiting it to synthetic fibre pollution, to ensure a more comprehensive understanding of this environmental challenge. Therefore, we strongly recommend that any future surveys done or analysed to tackle user behaviour on topics related to fibre fragmentation (such as laundering practices) comprehensively consider the environmental impact of all fibre types and all lifecycle stages (as microfibre shedding happens throughout a garment's life: manufacture, consumer use and disposal due to factors including friction (wear; drying) and UV exposure, not just washing.)
300	6.3.2; 2083-2085	The Digital Product Passport – DPP (that might take the form of either a QR code or another technology) will be very useful for the textile stream if it provides clear, structured, and easily accessible data. It will help consumers make informed choices, enable public authorities to perform better checks and controls, and provide textile sorters with information about the materials in a product. The DPP should provide the most necessary and useful data to not become overburdensome for textile sorters. Furthermore, QR-codes will not help the sorting industry become more digitalized or automatic. RFID or NFC technology will better fulfil this ambition. While the DPP can improve the handling of used garments during the sorting and recycling, it must be designed in such a way as to not extend the sorting process' duration or hamper mechanical recycling (for example, by being hard to remove). Today, physical labels (when not removed before by the end-user) are usually not checked in the sorting process for both reuse and recycling, because it is time consuming. Incentives should be encouraged to support the DPP's deployment in the reuse and recycling sector. There is a need to fund at both EU and national levels into research, innovation and the scaling up of infrastructure for the high-quality manual and/or automatic composition sorting of textiles in order for the industry to be ready to make use of collected waste by means of reuse, recycling, reusing or repairing.
301	6.3.3; 2105 – 2150	Here the document addresses the concept of whether apparel is or is not repairable, and how this effects disposal. Causality, in other words. "The consumer relationship with apparel often exhibits a transient nature, characterised by the disposal of items before they reach the end of their lifecycle. This disposability stems from factors such as overconsumption and the convenience of replacing rather than repairing apparel. Moreover, diminishing sewing skills and limited access to repair services further impact consumers' decisions regarding garment maintenance and repair." "Reasons for this behaviour include overconsumption and the convenience of replacing unwanted items rather than repairing them. A lack of emotional attachment to the product is observed." Again, we have consumer questionnaires raising their 'ugly heads': "Most survey respondents rated reparability as unimportant when purchasing

ID	Section & line	Comment
		apparel items such as coats or jackets while only about 11% considered reparability to be important." In a recent Norwegian study (not cited here, as it is in Norwegian), 65 percent of textiles disposed of in municipal waste, was fully usable. When consumers dispose of clothes before they are worn out, they do not need repairs, so why is JRC pointing a finger here? The argument does not take into account the clear facts: 1. Most clothes are not purchased as replacements 2. clothes are repairable 3. they are mainly disposed of before they are worn out 4. disposing of clothes makes room for new purchases in the wardrobe. As already pointed to, this needs to be research and the inverse dynamic also needs addressing. There is little knowledge, yes, but what is wrong with the vast majority of clothes are repairs that do not require much knowledge. The vast majority of 'faults' are stains, pilling, etc., in other words repairs that do not require much knowledge or very specialized equipment. There is no research that looks at whether more repairs would lead to longer use and certainly not whether this would prevent the purchase of new ones (in WRAP's latest publication, they specifically ask for this research). It may just as well be that small defects are used as an excuse for disposal. If the garments are well-liked, consumers will both live with the defects and/or do something about them. Thus, the main reason for disposal is not the defects themselves, but the lack of value. We have no documentation that replacement is important when acquiring new clothing, quite the opposite, and what is referred to as "overconsumption" can just as well be referred to as overproduction, which means that a lot of clothing is sold with aggressive marketing and for extremely low prices. We would rather ask: When did apparel become "non-repairable"? Repair has been a common and daily part of clothing care since… forever. The whole concept itself here is weak and therefore it is of course not easy to ask consumer about this aspect. This is one of several examples of how transferring terminology from another field of consumption (electronics) to clothing, does not work. Sewing skills (which may be lacking) are really not necessary for most 'failures': stains and pilling. Repairs can be done in an infinite number of ways and will depend on the level of knowledge but also on what the individual wants and requirements for the garments (aesthetically and functionally). Suggestion: Do not use unclear concepts (like "reparability") and do not assume that replacement Is important, without evidence for this. Think through the "overconsumption" concept and whether the consumer or the industry are actually to blame, when considering aggressive marketing, the answer is rather obvious. Also: "Research by Laitala et al., (2023) emphasizes the need for clear guidelines on what constitutes unacceptable wear versus normal use." This is because complaints are important and generate professional repairs. Again – another reason for dating products, to ensure guarantees. So, this all comes together.
302	6.3.3; 2120 to 2124	Pera & Ferrulli (2023) confirm bullet points 1 and 2, so you may consider adding this further reference at lines 2122 and 2124. Furthermore, the study mentioned as great disabling effects: 1. The underpinning fast-fashion philosophy based on poor quality garments that has led to a sense of detachment and a consequent little

ID	Section & line	Comment
		emotional connection. For these reasons, garments are not considered worthy of repair 2. The convenience and ease of replacing textiles with cheap new ones which leads to a diminished necessity for textile repair or reuse skills On the other hand, the paper identifies physical proximity to a bin, a service or a person as strong enabling factors for the practices of repair, donate and resell, that help consumers contrast idleness, lack of time and lack of energy. So you may consider adding these further points after line 2126.
304	6.4.1; 2177 - 2223	We would like to comment these references: "A review by Laitala and Klepp, (2022) of 17 consumer studies involving around 20 000 participants identified the most common reasons for apparel disposal as intrinsic quality (34%), 2191 perceived value (31.4%), and fit issues (25.8%). These findings are consistent with the results summarized in Table 36, which also highlight these factors as the primary reasons for apparel disposal. While quality-related concerns are the leading cause, perceived value and fit issues are almost equally significant." "Other issues: pilling, fabric breakdown, accidental damage, loss of dimensional stability, logo failure, discoloration, holes in seams, and trim failure (Cooper and Claxton, 2022b)." Disposal is mainly tied to volumes, and not necessarily what is addressed in the Cooper and Claxton study, as is made clear in the Laitala and Klepp reference, but this is not considered in the document in a satisfactory way, as this section is missing an important and missing aspect, quantity. One of the most important parameters for disposal is how much you have (i.e. how much you buy). If this quantity does not decrease, increased lifespan will have no effect, but conversely, less purchases will lead to longer useful life. Therefore, it is not ecodesign that we need, but regulation of marketing, to stem volumes. Disposal is also tied to life changes. Experiences from working with waste audits show that a lot of clothing is disposed of in large quantities. Wardrobe studies confirm this, and disposal happens mainly in conjunction with death, moving house, etc. This suggests that there are important life events that are pivotal. https://uni.oslomet.no/klesforskning/2023/03/31/want-not-waste-not-preliminary-findings/ The part that is disposed of because of wear must be identified. It is for these clothes (e.g. socks) that increased strength will lead to longer life. But the problem of making them stronger must then be weighed against other properties. This can be done by making the requirements fiber specific. Socks become stronger with more plastic, but then smell more, so if you prefer wool for less smell and more warmth, you must also accept weaker socks. For a sports t-shirt, a wool -shirt will ensure that if you have a Teams meeting right after the gym, you can skip a shower and not become ill, as it will keep you warm even when wet. A cotton or synthetic t-shirt, on the other hand, will make you ice-cold when wet. Suggestion: Analyze the drivers, which are marketing and volumes. Take into account that it is not necessarily anything wrong with the disposed items, it is their sheer volume that constitutes a problem. They are for the most part probably disposed of primary because there is too much in the wardrobe, and therefore there is little use for those items, they take up space. We lack knowledge on important aspects like price and reduced prices/sales (and other marketing parameters) on inflow, Duration of Service and thereby on outflow. Too much emphasis is placed on product level drivers and on design, when the battle is at a systemic level: overproduction, aggressive marketing, etc. When we have too much, we will also dispose of…too much. That is simple math.
305	6.4.1; 2222	Here it could be interesting to insert Pera & Ferrulli (2023)'s TABLE 6 - Companies' actionable implications, where the authors listed the main barriers encountered by consumers in enacting the practices of reuse, repair, donate and resell, suggesting companies and policymakers a series of actions that help consumers fell empowered and thus more inclined to engage with circular economy actions that extend the textiles' lifespan.
2297	10.6.1.2 Criteria used when buying apparel; 6056	As far as extrinsic durability is concerned:

ID	Section & line	Comment
		IFTH (Institut Francais du Textile et de l'Habillement) is actively collaborating with its partner, the "Institut Français de la Mode (IFM)" on an advanced transdisciplinary and multisectoral literature study. Our objective is to map the key influence criteria that impact product longevity: that is to say: longevity and attachment drivers (beyond the act of purchase, throughout the products' use). A state-of-the-art review is currently underway, and we plan to publish our initial findings in scientific journals and a white paper in the coming months. This research is aimed to help and feed the development of an extrinsic durability assessment tool, leveraging scales and maturity models of these criteria. This future tool will support brands in designing products that remain in circulation for as long as possible, in alignment with the requirements of the circular economy. for further information and to continue our work do not hesitate to contact us: For IFTH: Gaëlle Courage gcourage@ifth.org For IFM : Andrée-Anne Lémieux aalemieux@ifmparis.fr
2298	10.6.1.6 ; 6197 - 6199	The report includes reference to a study performed in Spain to measure the behaviour of clients towards the purchase of apparel made without harmful chemicals. The study seems low representative with a low sample size of 2000 people in a country of 48.37 million citizens, corresponding approximately 0.004% of the population of Spain. The statement in lines 6197-6199 does not exactly reflect the outcomes of CECU study in 2023. The report is saying that 61% of the consumers in the study declared that the restriction of hazardous chemicals in apparel is the second most important measure that policy makers should take. But the reality is that 61% is the percentage of total mentions the respondents selected this topic, but with different levels of importance because the question requested the respondent to select the 3 main actions that the authorities should take to promote sustainable products and reduce garment consumption: 23.8% selected chemicals in apparel as 1st choice, 22.1% selected as 2nd choice and 15.3% selected as 3rd choice. All of these percentage sum up the 61% mentioned in line 6197 of JRC report. Moreover, the Spanish study declared the following outcome on page 27: "The two measures considered a priority by the majority of citizens are banning the sale of clothing containing hazardous chemicals and banning the sale of clothing that is not manufactured under fair conditions. Both are mentioned by six out of ten citizens (61.2% and 59.7% respectively) and around a quarter of the population considers them to be top priorities (23.8% and 25.3% respectively)." In conclusion, the wording in the report is mixing the total percentage of mentions with the priority level, and this could mislead the reader. Because in the correct terms, as the Spanish study states in its outcomes, 60% consider the authorities should ban the sale of clothing containing hazardous chemicals and only a quarter (23.1%) consider this measure a first priority.
2299	10.6.1.6; 6197-6199	The report includes reference to a study performed in Spain to measure the behaviour of clients towards the purchase of apparel made without harmful chemicals. In the first place, the study seems low representative with a low sample size of 2000 people in a country of 48.37 million

ID	Section & line	Comment
		citizens, corresponding approximately 0.004% of the population of Spain. In the second place the statement in lines 6197-6199 does not reflect exactly the outcomes of CECU study in 2023. The report is saying that 61% of the consumers in the study declared that the restriction of hazardous chemicals in apparel is the second most important measure that policy makers should take. But the reality is that 61% is the percentage of total mentions the respondents selected this topic, but with different levels of importance because the question requested the respondent to select the 3 main actions that the authorities should take to promote sustainable products and reduce garment consumption: 23.8% selected chemicals in apparel as 1st choice, 22.1% selected as 2nd choice and 15.3% selected as 3rd choice. All of these percentage sum up the 61% mentioned in line 6197 of JRC report. Moreover, the Spanish study declared the following outcome on page 27: "The two measures considered a priority by the majority of citizens are banning the sale of clothing containing hazardous chemicals and banning the sale of clothing that is not manufactured under fair conditions. Both are mentioned by six out of ten citizens (61.2% and 59.7% respectively) and around a quarter of the population considers them to be top priorities (23.8% and 25.3% respectively)." In conclusion, the wording in the report is mixing the total percentage of mentions with the priority level, and this could mislead the reader. Because in the correct terms, as the Spanish study states in its outcomes, 60% consider the authorities should ban the sale of clothing containing hazardous chemicals and only a quarter (23.1%) consider this measure a first priority.
2306	10.6.3; 6927	We agree with stakeholders' proposals to assess formulations including surfactants (anionic and nonionic) together with polymers and enzymes with good cleaning performance at low temperatures in relation to to best available techniques in the field of washing as regards the textiles Ecolabel criteria. For example, cellulase and subtilisin are used in the finishing process as fabric form or garment hairiness elimination, pilling reduction, surface cleaning and antifelting finishing. The benefits are saving energy, water and time, reducing wastewater; curbing hazardous substances and achieving a softer handle effect.

Annex 8. Comments on current EUEL criteria

Table 31. Comments on current EUEL criteria

ID	Section & line	Comment
307	Chapter 7;2322	EU Ecolabel Adopting globally established sustainability standards, such as the Recycled Claim Standard (RCS) and Global Recycled Standard (GRS) from Textile Exchange, are crucial. With the help of these standards, verification tracking of recycled material from all waste streams is possible and ensures transparency and traceability along the textile value chain. Rationale: The textile industry does not need another sustainability certification / label. There are >10 already and RCS/GRS are the must-have.

ID	Section & line	Comment
308	7;2380	We want to ensure that other certification schemes not recognized by the EU Ecolabel that are creating benefits in the textile industry remain considered. As we recognize the benefits of creating a single label for consumer recognition, having a singular label in the marketplace limits room for innovation within standards and certifications. The EU Ecolabel has a narrow jurisdictional scope that may potentially leave out globally applicable standards. It is important to note that EU Ecolabel is granted to best-in-class products which allows their producers to advertise product environmental excellence (in line with the amended Unfair Commercial Practises Directive). For the purpose of ensuring compliance with future ESPR eco-design measures, despite not matching this level of environmental excellence, recognised private standards and certifications will also be highly valuable for producers to substantiate and verify eco-design requirements under ESPR, notably in addition to the EU Eco-label. Since the mandatory requirements planned under ESPR are going to be market access minimum requirements, it would be natural to allow compliance with ESPR requirements applying private standards (where relevant): an example would be Textile Exchange's Global Recycled Standard to comply with future possible eco-design measures on recycled content. Relying on industry standards already available on the market, will reduce the cost and administrative burden when complying with the ESPR.
309	7.3 Revision of EU Ecolabel criteria within the ESPR framework;2395	Under Commission Decision 2014/350/EU of 5 June 2014, which sets the ecological criteria for the EU Ecolabel for textile products, textile fibers - such as cotton, wool, elastane, polyester, polypropylene, and man-made cellulose fibers, are generally required to comply with specific chemical content requirements. Accordingly, the phrase should be: "Specific fibers must meet requirements on sourcing, chemical content, and emissions at their production stage."
310	7.3 Revision of EU Ecolabel criteria within the ESPR framework;2396	Under Commission Decision 2014/350/EU of 5 June 2014, which sets the ecological criteria for the EU Ecolabel for textile products, fabrics must also comply with requirements on chemical content, energy efficiency, and emissions to air and water at their production stage. Accordingly, the phrase should be: "The product must meet specific requirements regarding chemical content, chemicals, energy efficiency, and emissions to air and water." Additionally, as this decision also applies to components and accessories, a new point should be added stating that: "Components and accessories must meet specific requirements regarding chemical content."
311	7.3;1399-2402	Nordic Ecolabelling question the condition, that there always is a close relation between the requirements to durability and recycled content and the product categories set up in the PS. Hence there can be large differences in the durability/functionality within the product category "jackets". In the product categories (Table 7) there can be a great deal of variation within each product category. A jacket can, for example, vary from a light summer jacket to a robust work jacket. And depending on the type of fibres, in for instance a T-shirt, the share of recycled content can be very different. It is unclear how ESPR will set quality and durability requirements within these categories with such great variation. Nordic Ecolabelling are worried that a one-sided focus on setting requirements based on the product categories, will reduce the ability to set environmental requirements. Having said that, both the Nordic Swan Ecolabel and the EU Ecolabel set quality/durability requirements within topics such as dimensional changes during washing and drying, colour fastness (to light, washing, rubbing etc.), pilling, abrasion resistance and seam strength. These requirements vary in relation to the type of fibre (e.g. wool, cotton, synthetic), production method (knitted or woven or other) or the function of the product (e.g. T-shirt, jackets and coats, trousers, nightwear, furniture fabric). In addition, the EU Ecolabel sets requirements for the quality of any properties/treatments/coatings of textiles that are sold with a specific function, such as water/oil/stain repellent or fire retardant. This means that the EU Ecolabel and the Nordic Swan Ecolabel actually have quality/durability requirements that are linked to the final function of the product/product category but are not necessarily in accordance with the product categories in the JRC report table 7 (T-shirts, Shirts/blouses,

ID	Section & line	Comment
		Jackets/coats etc.). A more flexible approach could be for ESPR to specify which quality tests are to be performed and then require that the product passports contain the relevant test results, regardless of product category. In this context, it makes sense to refer to the same test methods as the EU Ecolabel (and Nordic Swan Ecolabel) refer to, as these are recognised and used in the industry. Ecolabels can then play a role in identifying the best products within different fibre types, production methods and functions.
312	7.3;2405-2410	It is correct that neither the EU Ecolabel nor the Nordic Swan Ecolabel require a percentage of recycled material in relation to the final function/product category (T-shirt, jacket, swimwear, etc.). Nordic Ecolabelling suggest not to focus so much on the product categories, such as T-shirts or Jackets, and focus more on the hotspots identified throughout a textile's life cycle, depending on the type of fibre. There can be significant differences within each product category regarding the proportion of recycled material that would be feasible. For example, the availability and quality of recycled material can vary significantly between a polyester T-shirt and a cotton T-shirt. In the report, the JRC writes that it is not possible to set strict requirements for recycled material in a T-shirt because the textile must be thin. But our experience is that such a generalization across T-shirts cannot be made. If the T-shirt is made of polyester, it is possible to get recycled material in a quality that can make a thin T-shirt. The same probably does not apply to cotton, where the availability and quality of recycled fibre also plays a role. Based on this knowledge The Nordic Swan Ecolabel's criteria for textiles require 100% recycled synthetic fibre (with an exception for smaller percentages of synthetic fibre mixed with other fibres), while for example for cotton the requirement is either recycled or organic cotton. Since the above would require very complex requirements, taking into account both the product category and the fibre type, Nordic Ecolabelling suggest for ESPR to require information on the proportion of recycled fibre in the product passports instead of setting different limit values for each products category, if that is the intention.
313	7.3;2408-2409	Textile yarns use fine and coarse to describe their thickness.
314	7.3;2409-2411	These two sentences should be amended as follows: 'This means that the possibility to use a specific quantity of recycled natural fibres in a textile product depends on the function performed by the textile product including the intended lifespan. Additionally, the content of recycled fibres affects the characteristics of the yarn and influences thereby its aesthetic, and the comfort provided to the user.'
315	7.3;2409-2411	The sentences should be amended as follows: 'This means that the possibility to use a specific quantity of recycled natural fibres in a textile product depends on the function to be performed by the textile product including the intended lifespan. Additionally, the content of recycled fibres affects the characteristics of the yarn and influences thereby its aesthetic and the comfort provided to the user.'
317	7.4;2418-2421	We would like to point out that the Nordic Swan Ecolabel has a separate criteria set for cleaning textiles called “Supplies for microfibre based cleaning”, which includes cloths, mops, pads, and other cleaning products containing microfibres. These criteria have product-specific requirements which include,

ID	Section & line	Comment
		among others, requirement for the proportion of recycled material and quality/durability requirements in the form of documented cleaning effect and quality after many washes of the products.
318	7.4 Looking for synergies with other Ecolabels used in the EU Table 38: other products EU Ecolabel;2428	Regarding the last row of Table 38, it should be clarified that bags, handbags, purses, and wallets are eligible for the EU Ecolabel, provided they contain at least 80% textile fiber and that non-fiber elements comply with the requirements set by this decision.
2303	10.7.2;6920	In Table 102, Criterion 2. Flax and other "blast" fibres, there's a mispelling with the word "blast" which must be changed with "bast"
2304	10.7.2;6921	• Criteria 7: Polyester: Also consider "fibre coming from sustainable forestry management". • Criteria 7: Polyester: To accelerate the shift to more sustainable bio-based materials, a transparent communication of the bio-based share in the product would be helpful (e.g. x% biobased content) to already incentivise the uptake of smaller amounts of bio-based content. In general, polyester is made of 30 % MEG which can be entirely bio-based already today. The remaining 70 % of terephthalic acid can be made of bio-based Naphtha which can be considered via mass balance approach and a bio-attributed content in the final product. • Criteria 9: Man-made cellulose fibres: How is the suggestion “Allow only use of organic cotton” related to this category?
2305	10.7.2;6921	• criteria 7: polyester Please, consider also the fibre coming from sustainable forestry management • criteria 9: Man-made cellulose fibres: How is this “Allow only use of organic cotton” related to this category?
2307	10.7.3 Comparison among Ecolabels - Table 107. Textile fibres - comparison among Ecolabels;6937	EU Ecolabel, Topic "Organic Cotton", Requirement: The wording should be clarified by changing "Minimum quantity of organic cotton used to manufacture the final product to be labelled: 95%" to "Minimum quantity of organic cotton required for a product to bear the label 'Made with organic cotton': 95%".
2308	10.7.3 Comparison among Ecolabels - Table 107. Textile fibres - comparison among Ecolabels;6937	EU Ecolabel, Topic "Organic Cotton", Verification: 1) The text should include a note stating that Regulation (EU) 2018/848 has repealed Council Regulation (EC) No 834/2007 and that, as a result, compliance must now align with the requirements of the new Regulation (see Regulation (EU) 2018/848 of the European Parliament and of the Council of 30 May 2018 on organic production and labeling of organic products, repealing Council Regulation (EC) No 834/2007); 2) To ensure consistency with the text of the requirement, the phrase “Certification annually for each country of origin: Regulation (EC) No 834/2007; The US National Organic Programme (NOP), Set by other trade partners” should be revised to: “Certification annually for each country of origin: Regulation (EC) No 834/2007; The US National Organic Programme (NOP); equivalent legal obligations set by the EU’s trade partners.” 3) It should be noted that the list of third countries recognized for equivalence under Article 33(2) of Regulation (EC) No 834/2007 is established in Annex I of the Commission Implementing Regulation (EU) 2021/2325, of 16 December 2021, establishing, pursuant to Regulation (EU) 2018/848 of the European Parliament and of the Council, the list of third countries and the list of control authorities and control bodies that have been recognised under Article 33(2) and (3) of Council Regulation (EC) No 834/2007 for the purpose of importing organic products into the Union, and that the United States is one of the recognized countries. 4) Additionally, it should be stressed that, under Regulation (EU) 2018/848, organic cotton is recognized as a product closely linked to agriculture.

ID	Section & line	Comment
		Therefore, the regulation applies whenever this product is, or is intended to be, produced, prepared, labelled, distributed, placed on the market, imported into, or exported from the Union (see Article 2 and Annex I of Regulation (EU) 2018/848).
2309	10.7.3 Comparison among Ecolabels - Table 107. Textile fibres - comparison among Ecolabels;6937	EU Ecolabel, Topic "Other cotton production": 1) The reference stating that IPM and conventional cotton must be free from GMOs and that traceability must be ensured from the point of verification of the production standard up to, at a minimum, the greige fabric production stage should be included in the requirement section rather than in the verification section; 2) It should be clarify that approved IPM schemes must prohibit the pesticides listed under Criterion 1 of the EU Ecolabel criteria for textile products; 3) The reference to 'Certified Integrated Pest Management (IPM) schemes during the cotton cultivation process: BCI, CmiA, and Fair Trade cotton' should be revised to 'IPM schemes must be approved by the Competent Bodies of the Member States,' as Commission Decision 2014/350/EU does not reference any specific IPM schemes.
2310	10.7.3 Comparison among Ecolabels - Table 107. Textile fibres - comparison among Ecolabels;6937	EU Ecolabel, Topic "Polyester", Verification: The obligation "Monthly averages for the total emissions of organic compounds from production sites for ecolabelled products shall be provided for a minimum of six months preceding the application" should be added (see Verification of Sub Criterion 7 c)).
2311	10.7.3 Comparison among Ecolabels - Table 107. Textile fibres - comparison among Ecolabels;6937	EU Ecolabel, Topic "Man-made cellulose fibres" - Pulp production sub-criteria: 1) Derived from wood (Criterion 9 a)): it should be added that complience with due diligence processes must be demonstrated; 2) Derived from cotton linters (Criterion 9 b)): see the observations made for organic and IPM cotton.
2312	10.7.3 Comparison among Ecolabels - Table 107. Textile fibres - comparison among Ecolabels;6937	EU Ecolabel, Topic "Regenerated Cellulose fibres": Clarification is needed between the topic "Man-made cellulose fibres" and this one, as the EU Ecolabel establishes requirements for pulp production as well as for the incorporation of recycled fibers.
2313	10.7.3;6937	• Ecolabel requirements for polyester: Also partially wood-based polyester should be considered. To accelerate the shift to more sustainable bio-based options the requirement of 90 % of biobased content should be adapted to a more transparent communication of the bio-based share in the product (x% bio-based content) to consider already smaller amounts of bio-based content. In general, polyester is made of 30 % MEG which can be already today bio-based. The remaining 70 % of terephthalic acid can be made of biobased naphtha which can be considered via mass balance approach and a bio-attributed content in the final product. • Ecolabel requirements for Regenerated Cellulose fibres: Assumably this is referring to recycled fibres. This is a bit unclear because man-made cellulosic fibres and regenerated fibres are used also as synonyms to differentiate them from synthetic (man-made) fibres. Please, consider clarifying the “regenerated fibres” term and making the terminology consistent throughout the document.
2314	10.7.3 Comparison among Ecolabels - Table 110 Chemicals and processes - comparison among Ecolabels;6943	EU Ecolabel, Topic "Substance restrictions or specific chemical requirements": It should be stressed that EU Ecolabel sets specific limitations for hazardous substances, including halogenated carriers, due to their environmental impact and potential toxicity and imposes limitations on the use of halogenated compounds in dyeing and bleaching processes, including chlorinated and brominated derivatives

Annex 9. Comments on public procurement & EU GPP

Table 32. Comments on public procurement & EU GPP

ID	Section & line	Comment
319	Chapter 8; 2442-2478	The introduction to the chapter mentions “the PS will provide the scientific and technical basis for the future development of the possible EU GPP requirements for textile products" (2437-2438). However, the information presented under 8.1 Public procurement in the EU is based solely on incomplete TED data only. These TED data only consist of information on contract and award notice for tenders above € 139.000 treshold. In the report this leads to a table of numbers of procurements of several textile items from 2015-2019. In no way this paragraph is providing a meaningful scientific and technical basis for future development of GPP requirements for textile products. For instance no information is available on the textile volumes of the procurements, the environmental impact or the actual uptake and use of GPP criteria in the procurements, mentioned in the table. The conclusion in the paragraph that monitoring public procurement is currently a challenging task is an understatement. Before a scientific and technical assessment of procurement can be made it is needed to start collecting relevant data on for instance volumes of purchased textiles and the use of GPP criteria.
320	8.2; General comment	[…] strongly supports mandatory green public procurement. Around 14% of the EU’s GDP (around EUR 2 trillion per year) is spent on average on the purchase of services and goods through public procurement. This shows that green public procurement (GPP) can play a decisive role in fostering circular economy, climate change mitigation and green technology innovation. […] advocates for ensuring that circular procurement has a prominent role according to its environmental and climate benefits. This means, focusing on criteria to procure products that are recyclable and that contain recycled content.
321	Chapter 8; 2479-2516	Again in this paragraph the lack of data on the uptake of the criteria is an issue. Furthermore the problem with the current GPP criteria for textiles is that these were already outdated when they were last updated in 2017. The criteria do not contain many of the circular product aspects, mentioned under article 5(1) of the ESPR. So, we urgently need updated circular criteria, more in line with the circular product aspects. GPP reward criteria can then be used as voluntary add-ons to mandatory minimum product aspects, in order to incentivize innovation by frontrunners and make public procurement a lever for sustainability.

Annex 10. Comments on section on technologies in general

Table 33. Comments on section on technologies in general

ID	Section & line	Comment
322	CAP 9;2517 to 4149 (all)	[…] Regardless of other specific contributions to the PS document by our partners, following the “section and lines” model for each contribution, we have summarized some general comments in the following report: The PS incorporates statements that should be difficult to objectively quantify, particularly regarding business models, their relationship with the physical properties of products -even environmental impact or the number of unsold garments- and commercial communication (e.g.,

ID	Section & line	Comment
		labeling) or emotional and even subjective consumer behavior in purchasing, wearing, maintaining, repairing, or discarding these garments. This could compromise the scientific neutrality of this report unconsciously. Business models and consumer behavior ought to be discussed apart from this Preparatory Study on ecodesign criteria as general recommendation. Furthermore, certain issues are raised that are beyond the control of producers, such as water consumption in laundry activities after the sale of the garment, consumer behavior in wearing, storing, maintaining or repairing their clothing and other unpredictable aspects. These should not influence the legal requirements for eco-design. We believe that the study should focus solely on product parameters subject to eco-design criteria supported by solid scientific evidence.
323	Technologies;2517	The methodologies and best practices that have been consensually developed and implemented by industry must be taken into account. It is crucial to include industry expertise throughout the development of the whole exercise.
324	Technologies;2517	The man-made fibre industry is making strong efforts to develop a circular economy. Textile products have a high degree of complexity and a flexible approach is needed in order to reach an efficient and economically viable circular economy.
325	9;2517	Statements in this Chapter are often without supporting scientific evidence. Existing best practices and business realities are also not properly considered and integrated in the analysis and assessments.
326	9;2517	To improve the report, we suggest: 1. Improve terminological and methodological consistency to reduce ambiguity and confusion. 2. Integrate flexible and proportional solutions for durability and recyclability/recycled contents, with examples and supporting data. 3. Promote sustainable technologies and strategies, enhancing the specificities of the sector. 4. Emerging technologies could be integrated to increase efficiency and reduce environmental impacts.
327	9;2517	The Chapter highlights the need for clear and uniform terminology, which is essential to avoid misunderstandings. For example, the definition of textile products as complex products is explained in these terms: 'According to Council Regulation (EC) 6/2002 (1), a complex product is composed of several components that can be replaced allowing the product to be disassembled and reassembled. In contrast, non-complex products do not include priority components or parts and, therefore, do not have replaceable elements. A textile product is considered complex even when it is not made up of components, given the variety of fibres used in blends and the different processing phases (spinning, weaving, finishing).' The Chapter contains inconsistencies in the definition of the basic principles of the ESPR and in the technical considerations. For example, the concept of durability is ambiguous: on the one hand, it is considered an environmental advantage, on the other hand, for PSS business models,

ID	Section & line	Comment
		it seems to be associated with negative impacts. This approach requires further study to clarify the environmental and economic implications of the design choices. We propose to standardize the terminology and adopt clear rules for the application of the ESPR principles, and to include concrete examples to highlight the consequences of lack of consistency in the terminology.
328	9 Technologies;2,517 ff.	Section 9, general comment: It is not advisable to deviate from the general principles when using the term technology in such an overarching document: The common definition is that technology is the science of transforming raw materials and substances into finished products and consumer goods by applying scientific and technical knowledge JRC as well as the entirety of textile and garment scientists in Europe should not define products as technologies. This is all the more true as Task 4 does not deal with any technology, only with product features. The terms and definitions should be harmonized in the various legislation in the EU. BAT is used for the term best available technique. See definition in article 3(10) of the I ndustrial Emissions Directive (2010/75/EU). 9.1, line 2,539: Ecodesign requirements must be limited to product essentials and compliable with a reasonable technical and financial effort, in particular for Small and Mid-sized Enterprises over-regulation must be avoided. Only those requirements should be imposed, which can be verified by market surveillance authorities. Otherwise, we see a risk of circumvention (particularly by low-cost providers from third countries) and competitive disadvantages for European textile industry. As we acknowledge the limitations of certificates with regard to verification, we urge the commission to strengthen research in future solutions to e.g. techni-cally verify the content of recycled fibres. 9.1.2, line 2,591: The guiding question for durability refers to the aspect functionality. It would be therefore desirable for functionality to be more closely linked to the durability aspect of clothing items. The aspect of clothing physiology, which is missing from the entire document but has a significant influence on the lifetime/period of use of a garment, must be addressed. Clothing physiology means the interaction between the human body and the item of clothing which comprise aspects like moisture management, heat transport, skin sensorial comfort or ergonomic comfort. Sections 9.1.3, line 2,724 ff. and 9.1.4: Clothing physiology is not addressed although it greatly influences the lifetime of a product.
330	Chapter 9;2517	The term 'Technologies' is confusing. ESPR/Ecodesign is about setting requirements on products, not on technologies (and technologies are not products). In the section paragraph it reads "… product technologies are products with defined characteristics related to a specific product aspect …". This is very complicated. Note that the base cases (products) are introduced on p. 56.
342	9;2523-2524	Analysis of textile apparel technologies. Evaluating sustainability aspects based on Best Not Yet Available Techniques (BNAT) introduces significant challenges. It relies on speculative assumptions about future technologies, industry practices, and consumer behaviour, undermining the reliability of assessments against current benchmarks. Moreover, BNAT assumes these innovations will be feasible and scalable, which may not materialise, creating a gap between theoretical potential and practical implementation. This approach risks imposing unrealistic expectations on stakeholders, potentially alienating them and detracting from actionable progress in sustainability efforts. Furthermore, the connection between the concepts Base Case, Best Available Technologies, and Best Not Available Technologies and future ecodesign measures is not laid out in the report. We would like to remind that ESPR is a market access legislation with the purpose of removing the worst performing products off the market only. We strongly ask for clarification of the relevance of these concepts for defining future proposed policy options.

ID	Section & line	Comment
346	9.1 9.2.3;2539 – 2547, Table 40, 2722, table 41, 2732 3128 – 3171	What is problematic: Repairability as a key aspect, what consequences this aspect will have if implemented as described. The replacement of separate elastic-bands in underwear, sportswear, tights, etc. and that elastane for comfort, esthetical and practical purposes, will have to be reversed as a 'design approach' to make the products more consumer-appealing. If the fabric is the part which is most affected by failures, followed by seams and trims, then this also means that few products are affected, and if it is price that mainly determines whether something is repaired, why is this not addressed? Solution: Find out the consequences, as for the most part clothing is repairable, and in the instance, it is not, complications may be bigger than assumed. Address the issue of price, for example by a discussion on the knowledge about the connection between price and DoS, repair and mode of disposal. Start a discussion on which apparel is not 'repairable' for example, apparel with electronics (out of scope), high content of elastane and pre-stressed denim.
544	Technologies;2733; 2939; 2945ff; 3009; 3532f; 3540ff; 3600f; 3616; 4065	Table 42: the overview is not clear. Is it just for an overview to show the interconnections of the different topics. Question: why is technical lifetime nor products guaranteed lifetime related to Environmental impacts. The longer a product is on the market, the lower the env.impacts are. Also: the use or content of recycled material has implications on the Env Impact assessment, which is not shown in the table. In general, the JRC approach to group relevant product aspects is supported! Table 44 / general feedback regarding the categories provided: Regarding the definition of the "function of the specific product" we emphasize the need of a differentiation between "natural such as cotton" and "viscose". It is more more likely, that a user chooses a pair of trousers or T-shirts made from viscose for sport activities, while for office work, cotton-made materials will be used. We understand your approach, but suggest that more exploration and details are provided. Moreover, when it comes to performance and information requirements formulated in the delegated act, a further differentiation of the categories in tabel 44 are necessary, especially when it comes to the requirement for each value and to the test methods. Regarding the "simulation of the ageing procss, we do not fully understand the aim of defining it. Also, where is the number of washing cylces coming from as they seem very high and do not comply to the other ISO 15487, where only 4 washing cycles are regarded. In general, a detailed description of product categories, such as provided in table 44 is useful when it comes to task 5. However, we would like to point out, that the regulation specific ISO standard will most likely increase the costs for producers, and by also effect test laboratories (that issue certificates), will lead to waiting times before a new collection (2-3 times a year) is published. Also: the producers should be responsible to choose the adequate test method by themselves.

ID	Section & line	Comment
		Line 2945ff: What is the second test method? The first one is "visual inspection" and the 5 key parameters are dimensional change, colour change, pilling, appearance of trims, self-staining. But what is the second test method? Line 3009: It is confusing that the table says "steps" while in the annex Table 128 speaks about grades. If these grade are the mentioned steps, please stick to one word "grades or steps". If this is not synonymously used please clarify what a step is. Line 3532f: Separate collection of textile waste actually should have been implemented by 01.01.2025 in EU MS... (still waiting for new amendment of Waste Framework Directive). Is there an update? Line 3540ff: The seemingly irreconcilable needs of recyclers and designers/manufacturers resembles challenges that the packaging industry has/had to face. In their case, the challenge is no trade-offs regarding product protection (especially food packaging) while providing recyclable structures that become more and more important due to statutory provisions (Packaging and Packaging Waste Directive, Single Use Plastics, ...). Hence, for further exploration it might be a good idea to look at how the packaging industry dealt with it. There is a lot of innovation regarding recyclable mono-material structures. A balance between performance & design vs easy recyclable (mono-)structures needs to be found. This could be explored and result in a hierarchy when it comes to the ESPR requirements in dependence of the specific product category. Line 3600f: In respect to a true circular economy which aims at closing the loops, we suggest to add: "... in textile products of equal quality and performance attributes." that helps to avoid downcycling. Line 3616: see comment above.

ID	Section & line	Comment
		loophole/worst scenario: Things could result in bad quality recyclate and would be "recycled" into filling material = downcycling - and this would still be "closing the loop" as it is still a textile product? >> comment above: In respect to a true circular economy which aims at closing the loops, we suggest to add: "... in textile products of equal quality and performance attributes." that helps to avoid downcycling. Line 4065: Suggesting to mention/take the abbreviation/term "NIAS" = non intentionally added substances?
716	9.2.1.3 9.3;2880 – 3011, incl tables 43, 44 and 45 4142 – 4144	Trying to simplify the extreme complex nature of textiles has ended up with a testing regime that makes no sense. The idea of 'aging' being measured and bunched into four 'levels' (bad case, base case, BAT and BNAT) and using PEFCR as A&F's categories, and not taking into account use and fibers being treated and chosen for different functions – such as warmth, lack of retaining smell, etc., all this is highly problematic. JRC writes: „The first step of this synthesis is the adoption of product categories valid for all relevant product aspects. In the case of textile apparel, this exercise is very simple because the only product aspect described via categories was the physical durability. This allows the adoption of the categories reported in Table 44 of section 9.2.1.4 as the product categorization to be used in the following steps of the development of the PS." This is not true. This is not simple, inn JRC's world view, not by a long call. The main 'failure' identified as an 'aging' factor is pilling, which is a factor for some products, but an easy-to-fix issue in many natural fiber products, more prevalent in blends. When – for accessories – one chooses to keep them out of the scope, because it would create to many sub-categories, for example dividing into fibers (silk vs. non-silk), one wonders why this isn't the exact same for all the other categories? For socks and tights, for example? Where holes are a main reason for failure, which isn't included. And for t-shirts, if these were categorized both into fibers and use areas (sports, everyday) one could nuance on cleaning cycles, relating to smell, for example. But then of course, the neat tables will not be so 'neat' any more. Also, this raises the question of how well these tests capture real life and true use. so why set 20 wash cycles as a given, when wool is laundered less often than other fibres. Start mandating date of products going to market, along with brand, and use waste audits to, at brand level, decide what ages and what does not age well. Compare with prices the products receive on the second-hand market, up against a 5-level scale of products' reuse value, developed by Consumption Research Norway https://clothingresearch.oslomet.no/2024/04/18/new-method-to-capture-relationship-between-properties-and-use/

Annex 11. Comments on relevant product aspects

Table 34. Comments on relevant product aspects

ID	Section & line	Comment
345	Relevant product aspects; 2539	6. How can ESP contribute to improving the environmental sustainability of products, make sustainable products the norm and reduce the overall carbon footprint and environmental footprint of products over their life cycle? As discussed above, some of the product design parameters are not per se addressing sustainability of products: durability, repairability etcetera in themselves do not make an individual textile item more sustainable. Such product parameters would make the system more sustainable for those types of products that can be considered perfect substitutes: a new washing machine substitutes a broken washing machine. If the old washing machine is designed in a way that makes it more durable or repairable, the consumer will refrain from buying a new washing machine. Fewer resources are used; less waste is generated. It has also been shown that textiles, from the consumer's perspective, are not perfect substitutes: a consumer will not refrain from buying a second, third, or fourth t-shirt, only because their first t-shirt is durable or repairable (eg. lines 1744 ff. on spontaneous buying behaviour). Consequently, it follows that for textiles, such product design criteria will be the most relevant that make the product itself more sustainable, not those that rely on, indirectly, reducing production or consumption. The problem of overproduction and overconsumption cannot be solved with design criteria and must urgently be addressed with other policies and legislation. The most impactful product design criteria for sustainable textiles would aim at having products that are not harmful – neither to the environment, nor the manufacturers, nor the consumers. This means that product design criteria should be defined in such a way to eliminate the most harmful products from the market first. The following product parameters, listed in Annex I of the ESPR, should be given priority and looked at in depth by the working document, given that other parameters, as discussed above, seem to be less suitable to achieve the goals: • use of substances, and in particular the use of substances of concern, on their own, as constituents of substances or in mixtures, during the production process of products, or leading to their presence in products, including once those products become waste, and their impacts on human health and the environment; • use or content of sustainable renewable materials • microplastic and nanoplastic release as expressed through the release during relevant product life cycle stages, including manufacturing, transport, use and end-of-life stages • emissions to air, water or soil released in one or more lifecycle stages of the product as expressed through quantities and nature of emissions, including noise • amounts of waste generated, including plastic waste and packaging waste and their ease of reuse, and amounts of hazardous waste generated Specifically, the issue of microplastics, and their release into the environment at all life cycle stages merits a closer look, as does the topic of substances of concern, where the requirements might very well go beyond REACH and towards more ambitious approaches. Concerning microplastics, the working document should acknowledge the findings of a recent study by Bates Kassatly and Townsend (2025, available here: Report on microplastics – Bremer Baumwollbörse; https://baumwollboerse.de/en/our-topics/sustainability/danger-warning-about-microplastics/), in the section on Pollution originated from textile fragmentation

ID	Section & line	Comment
		(lines 594 ff.), to give a more complete picture. In the EU, where abundance and overconsumption (not lack) of textiles is the most pressing problem, it is difficult to see how production and sale of textile items that are potentially harmful to the environment and humans could be justified, and the precautionary principle should apply to any requirements related to textiles. Implementation and enforcement of standards and rules is key to achieving a scenario where sustainable products are the norm. Ultimately, the implementation of a "polluter pays principle" for textile waste, and the internalization of costs for environmental harm would have a decisive impact that goes beyond design criteria. Moreover, existing voluntary sustainability standards should be highlighted more in the working document as an effective path towards more sustainability in the textile system. Such standards can also give guidance as to how best practice sustainable textiles are produced. Implementing the product parameters listed above with the help of the regulation on ecodesign criteria, and addressing the topic of overproduction and overconsumption with other pieces of legislation, will have the biggest impact to reduce the environmental footprint of the textiles sector.
350	1.1.1 (Task 4); 1	One reason for concern would be that the proposed framework is very different to that contained in the PEFCR for apparel and footwear (PEFCR A&F) physical durability requirements. One big issue is the different categories of garment PEFCR A&F divides garments into 9 subcategories which are further subdivided depending on fabric construction and end use (it assumes that some uses require higher levels of performance and that knitted fabrics have different performance levels than woven ones). The JRC proposal has 10 categories as a extra category for denim trousers have been created. There are some notable differences, skirts are grouped with dresses in PEFCR A&F but with trousers in the JCR proposal, blouses are with shirts in PEFCR A&F but with woven dresses in JCR. In the JCR framework there is no consideration of fabric construction other than for dresses. There is no explanation why these differences exist but it clearly will lead to confusion amongst brands required to test to both systems. It will also cause brands that want to use labelling as required by PEF to have to do durability testing twice using different tests to achieve the same thing. One possible consequance is that brands will choose not to engage with PEF to the detriment of the consumer.
351	Chapter 9; 2541	'shall improve' suggests that the delegated act shall improve all of these aspects, whereas in fact the delegated act shall improve the relevant aspects. Moreover, other aspects can be added.
352	9.1.2; Page 96	In Task 4, mechanical and chemical recycling is briefly touched upon in connection with relevant aspects. We expect Task 5 to investigate whether these technologies are environmentally viable.
355	Chapter 9; 2568	Note that Annex I already provides the link of parameters with aspects.
358	Chapter 9; 2581 & 2623	Is a qualitative approach without any quantitative base sufficient to exclude or include product aspects? Pls provide evidence-based scientific support to base this methodology on as stated in the introduction to be base for this PS. I very much doubt whether the questions really guide to identification of relevant product aspects. For durability, the question already contains an evaluation (long lifetime). Also note that durability includes repair – i.e. it is more complex than reliability. So, I would argue that reliability is more relevant than durability. Several of the guiding questions suggest a very low "barrier" to include the aspect, e.g. of course it is technically possible to remanufacture textile apparels. But the selection of product aspects also (or maybe mostly) should take into account the most relevant aspects. For the further analysis it is not very helpful that all but one discussed aspects are relevant."
359	9.1.2; 2591-2732	Based on the findings of the report, there is not much content in expected generation of waste, and therefore we propose excluding it from the relevant product aspects. The generation of waste is related mostly to product's physical durability and emotional durability.
360	9.1.2; 2591-2732	Prevention of cutting waste in production (post-industrial waste) is not directly a product design aspect, but a result of a well-executed cutting plan in the production.

ID	Section & line	Comment
363	9.1.2; 2602	The report states that 'While all lifecycle stages could be evaluated in the assessment of final products, in the case of intermediate products a cradle-to-gate approach is followed, where the use stage is disregarded, and the end-of-life stage is only partially assessed'. We do not agree with this approach. If an impact assessment is required, the end of the product's life cycle must be taken into account, even if it is a semi-finished product. The risk that a 'cradle-to-gate' calculation could be misleading for both consumers and B2B operators is very high. It is contradictory to calculate the life cycle impact by considering only certain phases. To dismiss the topic as irrelevant due to technological limitations is unacceptable.
365	9.1.2; Page 95, line 2606	Textile apparel are defined as final products. Does this mean that only test methods which can be used on the finished textiles are allowed?
366	Chapter 9; 2614	I think this paragraph mixes up the production and the product. Whereas the production of textile apparel can be complex (but so is the production of a television), the product itself is relatively simple. Textile products are complex products because of a complex production process. Components can not be replaced as electric devices. The product as a whole might be repairable.
367	Chapter 9; 2619	Textile apparel is not designed to last. Nowadays fashion is designed to consume. We have the opinion textiile is no durable product. If we want to classify textile durable it should be about (inteded) use instead of consumption of textiles.
368	Chapter 9; 2619	Textile apparel belongs to durable products because it is conceived and designed to last. More and more due to fast fashion this statement can be questioned. Is textile apparel really designed and conceived to last? We don't think so. This statement needs to be nuanced, elaborated and explained/scientifically proven. For example, cheap low-quality clothing is not designed to last. The quality is often not good enough to last for more than one season. We don't agree that all/most textile apparel belongs to durable products. It is noticable that brands produce more and more new collections.
369	Relevant product aspects and Physical Durability; 2619-2631 and 2802-3011	Context PEF methodology significantly overweight's the influence of physical durability on service life. Garments need to be strong enough to provide a long use phase, but evidence linking superior strength to increased textile longevity is lacking. Synthetic fibre products consistently outperform natural fibre products in most physical durability tests due to the high tensile properties of fossil fuel-based textiles (IWTO Position Paper 1). However, the strength of a garment is not the dominating factor determining whether consumers keep it. Consumers keep/discard garments based on perceived value, quality and fit. (Access link: https://clothingresearch.oslomet.no/2022/10/19/review-of-clothing-disposal-reasons/) Additionally, there is no evidence-based way to weight and amalgamate the different physical test results together with other attributes into a single score. An Ecodesign for textiles scheme that priorities physical durability test performance, in the absence of evidence that strong physical performance increases lifetime, will significantly bias in favour of clothing made from synthetics. Why would the EU implement a design directive that will deliver the opposite to its policy of putting fast fashion out of fashion? A more robust measure of lifespan should be applied (i.e. use of DPP-derived data from waste collection facilities as described above). In the absence of a more robust measure, the necessary research must be undertaken to identify, measure and weight the factors that actually determine textile longevity.
370	Relevant product aspects Physical Durability; Relevant product aspects 2619 – 2631; Physical Durability, 2802 - 3011	PEF's emphasis on physical durability as a proxy for textile longevity unfairly favours synthetic fibres, which typically score higher in tensile strength and abrasion resistance tests. However, consumer research shows that garment retention is more influenced by style, fit, and perceived quality than by physical durability alone. As well as being extremely durable, Harris Tweed® garments are cherished for their timeless design, cultural heritage, and emotional value, leading to extended use and even generational hand-downs. By prioritizing physical durability metrics, PEF overlooks these crucial determinants of clothing lifespan, inadvertently biasing against natural fibres. A more accurate measure would involve tracking real-world usage data through Digital Product Passports (DPPs), allowing for evidence-based assessment of product longevity. Until such data is available, further research is needed to identify the true drivers of textile longevity. Adopting this approach would provide a fair evaluation of heritage textiles like Harris Tweed®, whose durability is both physical and cultural, and craftsmanship rather than merely tensile strength.

ID	Section & line	Comment
371	Relevant product aspects Durability; 2619-2631 2802 - 3011	Overemphasis on physical durability testing disproportionately favours synthetic fibres. The PEF framework places excessive weight on physical durability when determining a garment's service life. While textiles must be sufficiently durable to enable prolonged use, there is no strong evidence to suggest that superior physical strength directly results in increased longevity. Synthetic fabrics consistently achieve higher scores in durability tests due to the inherent tensile strength of fossil fuel-based fibres (as outlined in the IWTO Position Paper 1). However, durability alone does not dictate whether consumers retain or discard clothing. Fit, perceived quality, and style preferences are much stronger determinants of garment longevity. https://clothingresearch.oslomet.no/2022/10/19/review-of-clothing-disposal-reasons/ Moreover, there is no scientifically validated method for weighting and combining various physical test results with other longevity-influencing attributes into a single, meaningful score. The current methodology, which prioritizes physical durability metrics without proving their link to real-world garment lifespan, introduces a bias in favour of synthetic textiles. If the EU proceeds with this approach, it risks implementing a design directive that directly contradicts its goal of discouraging fast fashion. A more reliable measure of product lifespan should be developed using Digital Product Passport (DPP) data from waste collection facilities. This would provide evidence-based insights into how long different brands' garments remain in circulation. In the absence of such a measure, further research must be conducted to accurately determine, quantify, and weight the factors that truly influence textile longevity.
374	9.1.2; 2623-2723	Relevancy of product aspects to apparel Since the guidance questions are meant to identify product aspects to be excluded because they are evidently not relevant, we agree with the qualitative approach that the JRC has taken. Considering the widespread and documented negative environmental impact of the textile sector, we believe that all product aspects are to be considered relevant prima facie and should be excluded at this stage only if it is proven that they are not. Further analysis on how much the various product aspects influence textiles' environmental performance belongs to other Tasks of the preliminary study. In conclusion, we agree with the JRC assessment that all product aspects are relevant for textiles apparel.
375	9.1.2; 2623-2723	Since the guidance questions are meant to identify product aspects to be excluded because they are evidently not relevant, we agree with the qualitative approach that the JRC has taken. Considering the widespread and documented negative environmental impact of the textile sector, we believe that all product aspects are to be considered relevant prima facie and should be excluded at this stage only if it is proven that they are not. Further analysis on how much the various product aspects influence textiles' environmental performance belongs to other Tasks of the preliminary study. In conclusion, we agree with the JRC assessment that all product aspects are relevant for textiles apparel.
376	9.1.2; 2623	The methodology behind the choice and responses to the guiding questions lacks scientific basis and justification, and overlooks important aspects that determine the criteria's relevance, feasibility, trade-offs. The key questions asked take too little or no account of economic feasibility. This must and should never be left out of the technical considerations. Furthermore, the questions are formulated in a very simplistic manner and lack a scientifically robust foundation. For a topic as complex as this, the JRC should have established more sophisticated and well-structured guiding questions. Additionally, some of the key questions are not neutral and seem to steer towards certain answers. This must be critically evaluated, as it undermines an objective and data-based discussion on the topic.
377	9.1.2; 2623-2723	Relevancy of product aspects to apparel

ID	Section & line	Comment
		Since the guidance questions are meant to identify product aspects to be excluded because they are evidently not relevant, we agree with the qualitative approach that the JRC has taken. Considering the widespread and documented negative environmental impact of the textile sector, we believe that all product aspects are to be considered relevant prima facie and should be excluded at this stage only if it is proven that they are not. Further analysis on how much the various product aspects influence textiles' environmental performance belongs to other Tasks of the preliminary study. In conclusion, we agree with the JRC assessment that all product aspects are relevant for textiles apparel.
378	9.1.2; 2623-2723	We agree with the JRC assessment that all product aspects are relevant for textiles apparel.
379	9.1.2; 2623- 2702	The reasoning and decisions made in the report are not sufficiently substantiated, notably regarding the methodology and reasoning behind the selection of the guiding questions for developing the second milestone, as well as the choice of AITEX as the main reference body for conducting the study. The inclusion of substantiated and sufficient scientific evidence is essential, especially at this stage of the process of drafting and developing the eco-design requirements, since the objective of the preliminary study is precisely to provide the necessary context to establish the requirements and ground subsequent discussions on a solid and scientific basis, rooted in evidence-based and well-represented realities of the sector.
380	9.1.2; 2623-2723	Since the guidance questions are meant to identify product aspects to be excluded because they are evidently not relevant, we agree with the qualitative approach that the JRC has taken. Considering the widespread and documented negative environmental impact of the textile sector, we believe that all product aspects are to be considered relevant prima facie and should be excluded at this stage only if it is proven that they are not. Further analysis on how much the various product aspects influence textiles' environmental performance belongs to other Tasks of the preliminary study. In conclusion, we agree with the JRC assessment that all product aspects are relevant for textiles apparel.
385	9.1.2; 2632-2635	Reliability: A generalized negative assumption is not appropriate in this case, as the various components do not solely lead to negative effects; on the contrary, they can also enhance the positive characteristics of the textiles. It is important to ensure that the question is framed more objectively.
386	9.1.2.; 2632-2635	A generalized negative assumption is not appropriate in this case, as the various components do not solely lead to negative effects; on the contrary, they can also enhance the positive characteristics of the textiles. It is important to ensure that the question is framed more objectively.
388	9.1.2; 2636-2639	While we are glad that reusability was not excluded from the list of relevant product aspects, we do not agree with the question related to it. Reusability is not just about health risks, but also about ensuring that subsequent users are able and willing to use the same product, hopefully for long. Hence, the preliminary study should assess if there could be features that a product should have to fit the needs of different consumers and be kept in use for longer (wider hem allowance, extra lining in jackets, etc.). Furthermore, in the context of the discussions around the exceptions to the ban on the destruction of unsold clothing and footwear, products may be unsuitable for preparing for re-use or remanufacturing due to technical unfeasibility to remove labels, logos and recognizable product design characteristics necessary to ensure compliance with intellectual property rights. Ecodesign requirements on reusability should address these shortcomings and ensure that perfectly fine products are not destroyed. It is important to also consider the 'ecosystem' - i.e. reusability does not always translate to actual reuse. The reusability aspect should include the following characteristics that are currently only foreseen for the recyclability aspect by the JRC: "(1) it can be effectively collected; (2) it can be sorted, i.e. segregated from other waste and sent to the subsequent [reuse] pathways; (3) it can be prepared [for reuse]". Argumentation: These factors have a strong influence on the actual reusability of products. The addition of these characteristics would also ensure coherency with the JRC draft proposal for end-of-waste criteria for reuse. For all these reasons, we do not believe that reusability can be grouped together with physical durability.
390	Chapter 9.1.2; 2640	Upgradeability The conclusions provided here may be misleading regarding the upgradability of textiles, as they seem to conflate this concept with repairability and repair for reuse. It is unlikely that consumers would purchase upgrades for items such as trousers, sweaters, socks, or jackets; these examples are more accurately categorized as repairs. For textiles used on furniture, however, the upgradability of textiles is feasible and already practiced (e.g., purchasing different textile covers for the same sofa). This example, though, might be more appropriately addressed for furniture. It is a very special case.

ID	Section & line	Comment
		In our opinion, this conflation could hinder clear decision-making and the focus on enhancing the sustainability of textiles. We believe that repair, reuse, and recycling are the most effective criteria for achieving sustainability in textiles. Therefore, we recommend to revise Table 40 to reflect that upgradability is identified as "Non-relevant product aspects."
391	9.1.2; 2640-2646	Upgradeability: The question of upgradability is closely linked to the broader question of repairability. However, as the focus is solely on the possibility of repairability, the practical and economic feasibility of its implementation are omitted. Before addressing upgradability in textiles, it is essential to first define this guiding question clearly. In its current form, the question cannot be effectively applied to the defined textile sector.
392	9.1.2.; 2640-2646	The question of upgradability is closely linked to the broader question of reparability. However, as the focus is solely on the possibility of reparability, the practical and economic feasibility of its implementation is omitted. Before addressing upgradability in textiles, it is essential to first define this guiding question clearly. In its current form, the question cannot be effectively applied to the defined textile sector.
393	Chapter 9; 2640	Is upgradability a relevant aspect? It sounds like repairability. You replace a broken zipper with a zipper, not with a 'better' zipper. Improving performance of a product is not a goal in textiles. It is not like improving the battery of a laptop by adding a longer lasting battery.
396	9.1.2; 2646-2650	Repairability: The question lacks a clear and comprehensive approach, addressing not only technical aspects but also considering economic and practical feasibility. In its current form, the question is overly generic and requires greater specificity. Repairability is important, but less upgradability, at least not on an industrial scale, if a product is of poor quality, it does not become high quality by replacing a single component.
397	9.1.2.; 2646-2650	The question lacks a clear and comprehensive approach, addressing not only technical aspects but also considering economic and practical feasibility. In its current form, the question is overly generic and requires greater specificity. Repairability is important, but less upgradability, at least not on an industrial scale, if a product is of poor quality, it does not become high quality by replacing a single component
399	9.1.2; 2647	The question lacks a clear and comprehensive approach, addressing not only technical aspects but also considering economic and practical feasibility. In its current form, the question is overly generic and requires greater specificity. Repairability is important, but less upgradability, at least not on an industrial scale, if a product is of poor quality, it does not become high quality by replacing a single component
400	9.1.2; 2651 -2657	Possibility of maintenance: The question aims to address the context in which textiles should be stored. However, proper care instructions are already provided on the textiles through care labels, making the question somewhat redundant. It is not posed objectively, as it seems to seek a specific, presumed answer.
401	9.1.2.; 2651 -2657	" The question aims to address the context in which textiles should be stored. However, proper care instructions are already provided on the textiles through care labels, making the question somewhat redundant. It is not posed objectively, as it seems to seek a specific, presumed answer. "
403	Chapter 9; 2658	What is meant by refurbishing of textiles? Is this remanufacturing? What is the description. Clarification is needed.
405	9.1.2; 2661-2676	Recycled content: There is a waste stream, but the more critical question of how textiles should be economically collected and processed as waste has not been addressed. The question is clearly biased, as it should first explore whether the textile waste stream is even suitable for recycling, and whether sufficient data exists regarding the quantity and availability of the fractions that actually enter recycling (rather than the secondary market). Only after this could any meaningful conclusions or inferences be made. The question lacks focus on economic efficiency and the associated goals for CO2 reduction. Additionally, it must be questioned and analyzed whether these textiles could be reused economically as recyclates.
406	9.1.2.; 2661-2676	There is a waste stream, but the more critical question of how textiles should be economically collected and processed as waste has not been addressed. The question is clearly biased, as it should first explore whether the textile waste stream is even suitable for recycling, and whether sufficient data exists regarding the quantity and availability of the fractions that actually enter recycling (rather than the secondary market). Only after this could any meaningful conclusions or inferences be made. The question lacks a focus on economic efficiency and the associated goals for CO2 reduction. Additionally, it must be questioned and analyzed whether these textiles could be reused economically as recyclates.
409	9.1.2; 2671/2672	Exclusion of non-relevant product aspects The quality of mechanically recycled fibers is generally lower than that of virgin fibers. Recommendation:

ID	Section & line	Comment
		To complement, we recommend to consider also solvent-based recycling as part of the portfolio of mechanical based recycling techniques. Solvent-based recycling provides high quality fibers and provides opportunities to remove substances hampering recycling.
410	9.1.2; Page 96, line 2671	The text states that "The quality of mechanically recycled fibres is generally lower than that of virgin fibres". We suggest adding a reference to the text that supports this statement. In general, we would like more data on recycling technologies and the quality of fiber-to-fiber textiles, as well as the environmental benefits of using fiber-to-fiber recycled content. In our experience, it is not a given that using recycled fibers naturally entails environmental benefits, since environmental impacts/benefits are always dependent on the recycling technology and fiber type used.
411	9.1.2; 2671-2672	The allegation that "the quality of mechanically recycled fibres is generally lower than that of virgin fibres" lacks any scientific source and evidence. In fact, it is necessary to be more specific and add that due to shredding in the mechanical recycling process, the fibre length of mechanically recycled fibre is shorter than with chemical recycled fibre. While mechanical recycling tends to shorten fibres, quality is not just about strength and fibre length. Furthermore, the very act of comparing mechanically recycled fibres and virgin fibres is questionable, since the length of a virgin cotton fibre can vary from 10-65 mm (Mather, R. R., Wardman, R. H., & Rana, S. (2023). The chemistry of textile fibres. Royal Society of chemistry.), as it is also the case for the mechanically recycled fibres which also vary in length – leading to mechanically recycled fibres being in some cases of better length than some virgin fibres. Moreover, even if of lower quality, recycled fibres should not be compared to virgin ones 1:1. Mechanically recycled fibers are often blended with virgin fibers to improve strength and durability, and then incorporated into new textile products. Finally, it is worth noting that new and upcoming mechanical recycling technologies are aiming at improving the fiber length. McKinsey's report (2022) on "scaling textile recycling in Europe" put emphasis on the "emerging "soft" mechanical recycling technology that can achieve fiber-length reduction of only 10 to 15 percent" and mentioned several mechanical recycling companies that have been exploring higher-quality mechanical recycling and other innovative solutions. Major brands already use mechanically recycled fibers in high-performance textiles, proving their quality can be sufficient: 1) Woolmark research shows mechanically recycled wool retains high performance (https://www.woolmark.com/industry/sustainability/recycled-wool-the-ultimate-circular-solution). 2) Several denim brands create long-lasting products with high recycled fiber content – for example, MUD Jeans incorporates up to 40% post-consumer recycled cotton into their denim products, despite acknowledging that "working with old denim is particularly challenging because the recycled fiber that comes out is very short".
412	9.1.2; 2672-2676	This seems strongly biased towards chemical recycling, excluding other possible forms, e.g. downcycling towards open loop.
414	9.2.5; Table 2 & line 2677	"Missing Remanufacturing as a recycling method --se above comment to 3.1..1/ 301. Textile products and textile waste suitable for remanufacturing will occur in different stages of the textile value chain even in the waste management. Therefore it is important to specify that remanufacturing also is a recycling method. The dominant part of the textile environmental impact stems from the production and to lower such impact the new production needs to decrease. According to the ESPR Articel 2 Definitions 'remanufacturing' means an operation in which a new product is manufactured from objects that are either waste, products or components and in which at least one change is made to the product that affects its safety, performance, purpose or type. That would mean remanufacturing is a recycling method if waste is used as raw material. From an environmental and climate point of view remanufacturing has certain advantages over fibre-to-fibre recycling. The fact that textile waste is used as a raw material in its existing form, means that fewer resources are required compared to when fibre-to-fibre recycling. This as new products can be manufactured without the need to produce new fibres and new materials. It is in the manufacturing phase from virgin raw materials that 80% of a textile's total

ID	Section & line	Comment
		environmental impact occurs. Although material recycling will be crucial in a circular economy and leads to reduced environmental impact on soil and water, fiber-to-fiber recycling of e.i. cotton and viscose does currently not lead to a reduced climate impact, and for polyester the reduction is less than 10%. This as fiber-to-fiber recycling itself is energy- and chemical-intensive, and only the fibre is replaced, while all other stages of the production chain are the same regardless of whether recycled or virgin fibre is used. Therefore, remanufacturing should be included as one of the processes for material recycling and taken into account in the work of developing EU-wide End of Waste criteria for textile waste. Two reports to comfirm the above comment: 1. PM 6/21: Regulatory mapping for remanufacturing of products under EU law https://www.kemi.se/download/18.6c26dc74178e406dc61ebc/1619702793595/PM-6-21-Regulatory-mapping-for-remanufacturing-of-products-under-EU-law.pdf 2. Does large-scale textile recycling in Europe reduce climate impact? A consequential life cycle assessment https://ivl.diva-portal.org/smash/get/diva2:1815815/FULLTEXT01.pdf
415	9.1.2; 2685-2694	Recyclability: Once again, the question is not related to economic aspects. Are there any actual and verifiable markets for recycled materials? What is the volume of demand for potential recycled materials compared to the use of virgin fibres? Where are the markets for recycled materials? Are there differentiations of recycled materials, recycled material brands and demand options based on different materials? Can recycled fibres from Europe possibly compete at all? If so, what quantities of recycled fibres and data are available here? The question is also not constructive and the response not verified. In addition, a build-up of scientific knowledge - depending on fibers and technologies - is necessary as to the conditions under which recycled fibers can be used optimally.
416	9.1.2.; 2685-2694	"Once again, the question is not related to economic aspects. Are there any actual and verifiable markets for recycled materials, and if so, where are they? What is the volume of demand for potential recycled materials compared to the use of virgin fibres? Where are the markets for recycled materials? Are there differentiations of recycled materials, recycled material brands and demand options based on different materials? Can recycled fibres from Europe possibly compete at all? If so, what quantities of recycled fibres and data are available here? The question is also not constructive and amounts to unchecked wishful thinking that recycling is actually possible in the EU, which has not been thoroughly examined and questioned. In addition, a build-up of scientific knowledge - depending on fibers and technologies - is necessary as to the conditions under which recycled fibers can be used optimally" Conclusion on quiding questions: The key questions asked take too little or no account of economic feasibility. This must and should never be left out of the technical considerations. Furthermore, the questions are formulated in a very simplistic manner and lack a scientifically robust foundation. For a topic as complex as this, the JRC should have established more sophisticated and well-structured guiding questions. Additionally, some of the key questions are not neutral and seem to steer towards certain answers. This must be critically evaluated, as it undermines an objective and data-based discussion on the topic."
418	9.1.2; 2692-2693	We need to make sure that there is a diversified approach so that not only does one fiber fall out better for recycled content or recyclable, we have to work on all fiber types (e.g. PET)

ID	Section & line	Comment
419	9.1.2 (page 96); 2692-2694	The conclusion that recyclability is a relevant factor primarily due to the non-competitive prices of recycled fibers does not seem entirely well-founded. A mandatory recycled content requirement would likely be a more effective measure to drive the demand for recycled fibers. However, if such a requirement is implemented in a broad and generic manner, most market players will seek the most cost-effective option—typically polyester from recycled plastic bottles—to comply. To prevent this unintended outcome, the EU should develop a strategic approach that ensures a diversified recycling infrastructure, supporting a broader range of materials rather than reinforcing the dominance of a single recycled fiber type. This would foster a more balanced and sustainable circular economy within the textile sector.
420	9.1.2; 2693-2694	It is true that "there is certain demand for material recycled from textile apparel, although it is limited due to non-competitive prices of recycled fibres". In fact, the demand for recycled fibres has always been too limited, leading for example to the bankruptcy of Renewcell in February 2024, and more generally to the current unprecedented crisis the collection, sorting for reuse and recycling sector is facing in Europe. One of the most effective policy tools to further close the loop of the textile value chain is the introduction of mandatory recycled content targets. Such targets undoubtedly help to further pull the demand for recycled materials and stimulate the development of sorting and recycling technologies.
422	9.1.2; 2696-2697	Biodegradable and compostable products should be included in the analysis for material recovery.
424	9.1.2; 2703-2723	In the qualitative assessment, the economic aspect is also mentioned as a component. It is clear from this that it is only mentioned in conjunction with the other assessment points (technical, socio-economic and environmental dimension). The economic aspects must be the actual focus of the survey. The assessment is carried out here, as in the list of key questions, because in actual implementation, economic efficiency must always be in line with the proportionality of sustainability.
425	9.1.2.; 2703-2723	"In the qualitative assessment, the economic aspect is also mentioned as a component. It is clear from this that it is only mentioned in conjunction with the other assessment points (technical, socio-economic and environmental dimension). The economic aspects must be the actual focus of the survey. The assessment is carried out here, as in the list of key questions, because in actual implementation, economic efficiency must always be in line with the proportionality of sustainability. "
427	9.1.3; 2723-2733	Due to the high product diversity, only simple and easily implementable approaches should be used for textiles. A piece of clothing cannot be categorised according to simple criteria such as the energy class and, due to the complex material diversity, product group, areas of application and other requirements, it has to fulfil a high and complex range of standards already. A reduction to an easily definable criterion must be made, which could be basic material properties. Recommendation to focus in general on the main material and refer the test standards to it.
428	9.1.3.; 2723-2733	 Due to the high product diversity, only simple and easily implementable approaches should be used for textiles. A piece of clothing cannot be categorised according to simple criteria such as the energy class and, due to the complex material diversity, product group, areas of application and other requirements, it has to fulfil a high and complex range of standards already. A reduction to an easily definable criterion must be made, which could be basic material properties. Recommendation to focus in general on the main material and refer the test standards to it"
430	9.1.3; Table 40	We agree with the JRC approach to recycled content, which focuses only on close-loop recycling of fibre to fibre, as opposed to the recycling of sorted PET bottles into textiles. In a circular model, PET from bottles should be kept in closed-loop recycling of food contact materials instead of downcycling them into textiles. It is more efficient to recycle bottles into bottles numerous times instead of converting them into textiles, limiting further recycling potential. This is also in line with the objectives of the EU Textile Strategy.
431	9.1.3; Table 41	Regarding the product aspect Reusability, we ask the JRC to also consider aspects related to the ability to remove labels, logos and recognisable product design characteristics which would enable reuse in line with intellectual property rights. The Commission already envisages a derogation to the prohibition to destroy unsold textile for products that may be unsuitable for preparing for re-use or remanufacturing due to technical feasibility to remove labels, logos and

ID	Section & line	Comment
		recognisable product design characteristics necessary to ensure compliance with intellectual property rights. It is essential that Ecodesign requirements address these shortcomings in order to ensure that perfectly fine products are not destroyed.
432	9.1.3; Table 41	Regarding the product aspect Repairability, we ask to also include in the required characteristics that repair is economically attractive for consumers. As found by consumer organizations, consumers expect that products advertised as repairable are not only technically repairable but also affordable to repair.
433	9.1.3; Table 41	Regarding the product aspect Presence of substances of concern, we ask the JRC to clarify that performance requirements (e.g. restrictions) can also be envisaged, along with transparency requirements. This is enabled under the ESPR, article 6(3).
434	9.1.3; Table 41	Regarding the product aspect Expected generation of waste, we ask the JRC to also address the key contributor of waste which is overproduction. The quantities produced and the frequency of renewal of collections should be regulated to avoid the generation of pre- and post-consumer waste.
436	9.1.3; Table 41	We agree with the JRC approach to recycled content which focuses on close-loop recycling of fibre to fibre and excludes recycling of sorted PET bottles into textiles. In a circular model, PET from bottles should be kept in closed-loop recycling of food contact materials instead of downcycling them into textiles. It is more efficient to recycle bottles into bottles numerous times instead of converting them into textiles, limiting further recycling potential.This also is in line with the EU Textile Strategy.
438	9.1.3 Table 41: Product aspects and required characteristics of products; 2732	Durability > The criteria is favouring plastics by overweighting the importance of physical durability testing. Garments need to be strong enough to provide a long use phase, but evidence linking superior strength to increased textile longevity is lacking. Synthetic fibre products consistently outperform natural fibre products in most physical durability tests due to the high tensile properties of fossil fuel-based textiles. Achieving the same level of durability is significantly easier and more cost-effective with polyester. As a result, Ecodesign criteria may unintentionally encourage the use of synthetic materials, which are a major driver of low-quality, disposable fashion—commonly associated with fast fashion. > Moreover, the strength of a garment is not the dominating factor determining whether consumers keep it. Consumers keep/discard garments based on perceived value, quality and fit. (Access link: https://clothingresearch.oslomet.no/2022/10/19/review-of-clothing-disposal-reasons/). Literature suggests that approximately 60% of discarded textiles are disposed of due to lack of quality or failures in the garment itself (e.g. pillage, colour fastness properties, tear strength, dimension stability, zipper quality, etc.). The textile industry imperatively needs to address the low level of 'extrinsic durability' of textile products, which often contributes to the decision to discard them after a short time.
439	9.1.3 Table 41: Product aspects and required characteristics of products; 2732	Reliability > In Table 41, we believe that the interpretation of reliability is too narrow and is missing any consideration on technical textile apparel. In Section 2, technical textiles are defined as textile products meeting technical rather than aesthetic criteria and is acknowledged that sportswear and workwear may be considered technical textiles in certain instances. As an example, consumers may buy sports apparel believing the latter will have certain functionalities. However, if the consumer realises after the purchase that the apparel product does not have the functionality with which it was marketed, then the consumer will potentially discard it. In this case, the sports apparel was not reliable because the primary or secondary function of the product was no longer performed. > Hence, under the reliability product aspect, the PS should also consider the specific additional functions that technical textile apparel are marketed with. This aspect is missing from the reliability considerations in the PS. For example, the current Ecolabel criteria include testing for durability of function, as reported in Table 109.
440	9.1.3 Table 41: Product aspects and required characteristics of products; 2732	Reusability > While we are glad that this product aspect was not excluded from the list of relevant ones, we do not believe that reusability should be grouped together with physical durability (as the report suggests from line 2736). > Reusability should be considered in terms of whether subsequent users are able and willing to use the same product for a long period of time, and whether the functionality of the textile apparel is conducive to being reused by multiple users.

ID	Section & line	Comment
		> In Table 41, the concept of reusability is too narrow and does not consider additional features that could be foreseen to incentivise subsequent use of the same product beyond physical durability attributes. Reusability should be considered in terms of the extent to which the design allows for fit to be adjusted. For instance, features such as wider hem allowances, extra lining in jackets, etc., can allow subsequent users to adjust the fit of the apparel product, thus potentially contributing to the extension of the product's lifetime. As is recognised in Table 98, good fit increases person-product attachment. > It is important to also consider the 'ecosystem' - i.e. reusability does not always translate to actual reuse. > In the context of the discussions around the exceptions to the ban on the destruction of unsold clothing and footwear, products may be unsuitable for preparing for re-use or remanufacturing due to technical unfeasibility to remove labels, logos and recognisable product design characteristics necessary to ensure compliance with intellectual property rights. Ecodesign requirements on reusability should address these shortcomings in order to ensure that perfectly fine products are not destroyed. > The reusability aspect must include characteristics that do not refer purely to physical durability. Many external factors influence product reusability: the collection method chosen, consumer behaviours and preferences, collection & sorting infrastructure (availability of second hand-retail outlet, storage capacities), product price, etc. As an example, a report demonstrates the existing correlation between the textile collection method and the reusability of the collected textiles. For instance, in Wales, the reusability rate of textiles collected via container stands at 75.3%, compared to 54.6% for those gathered through door-to-door collection. Reference: WRAP (2022) Composition of textiles in Wales. Available here: https://wrapcymru.org.uk/resources/report/composition-textiles-wales > The reusability aspect should include the following characteristics that are currently only foreseen for the recyclability aspect by the JRC: "(1) it can be effectively collected; (2) it can be sorted, i.e. segregated from other waste and sent to the subsequent [reuse] pathways; (3) it can be prepared [for reuse]". Argumentation: These factors have a strong influence on the actual reusability of products. The addition of these characteristics would also ensure coherency with the JRC draft proposal for end-of-waste criteria for reuse.
441	9.1.3 Table 41: Product aspects and required characteristics of products; 2732	Repairability > The report mentions "access to repair services" as a foreseen required characteristic for the repairability aspect. While we welcome this element, we would like clarification on how this characteristic will be monitored. > The price of repair services is not included in the required repairability characteristic. However, the price of repair constitutes the main barrier for consumers to get their products repaired. 77% of European citizens are willing to repair their goods, but the high cost of repairs often prevents them from doing so. Reference: Eurobarometer 388 (2014) Attitudes of Europeans towards waste management and resource efficiency.
442	9.1.3 Table 41: Product aspects and required characteristics of products; 2732	Substances of Concern > It seems that the JRC has prematurely decided that substances of concern will only be addressed by setting information requirements and not performance requirements. We remind the JRC that the definition of "substance of concern" is not just limited to substances that hamper recycling and that the setting of performance requirements shall also, where appropriate, reduce significant risks to human health or the environment, as foreseen in Article 6(3), second subparagraph, of the ESPR.
443	9.1.3 Table 41: Product aspects and required	Recycled content

ID	Section & line	Comment
	characteristics of products; 2732	> We welcome that the JRC recognises that recycled material should come from recyclable textile products and we would add that these textile products collected for recycling should be sourced locally/regionally to the fibre recycling site.
444	9.1.3 Table 41: Product aspects and required characteristics of products; 2732	Recyclability > We see a flaw in the definition of recyclability, especially point 4, insofar it does not consider the ability of a recycling technique to handle the volumes of apparel marketed in the EU at industrial scale and in a way that is economically viable. To be eligible under point 4, a recycling technique should not just be technologically ready, but also at scale and widely available and present in the EU. Otherwise, the definition would result in a loophole, whereby a huge volume of garment could be considered recyclable even if there is a small recycling plant very far from where the textile waste is generated and with a technology that is energy and resource-intensive and not economically interesting. > Equally, the inclusion of point 5 on ensuring that there are no substances that would disrupt the use of a recycled fibre precludes more stringent action on harmful chemicals in textile value chains (i.e. restrictions through performance requirements).
445	9.1.3 Table 41: Product aspects and required characteristics of products; 2732	Environmental impacts > We welcome that the definition of environmental impacts mentions aspects related to resource use and pollution, including microplastics, which should be minimised. Based on the Ellen MacArthur Foundation definition of circular economy, a product with low environmental impact should also contribute to regenerating nature. Hence it is important to consider aspects such as biodiversity and soil health, which could be currently overlooked in the present definition of environmental impacts.
446	9.1.3 Table 41: Product aspects and required characteristics of products; 2732	Expected generation of waste > Business practices are at the root of waste generation, regardless of the type of waste (pre-consumer, post-industrial, post-consumer). Overproduction practices, such as constant promotions and the rapid renewal of collections, lead to the devaluation of clothing. For example, in (ultra) fast-fashion leaders such as Shein, Zara and H&M, the average price of an item sold is €13.4, which encourages over-consumption. > As overproduction is the main driver of waste generation, it is crucial that the criteria for expected waste generation include business practices.£ > Clear criteria, such as production volumes and frequency of collection renewal, should be defined to take into account not only the quality but also the quantity of products placed on the market. The introduction of such requirements would also ensure consistency with other EU legislation, namely the eco-modulation rules under the Waste Framework Directive. We propose the following addition to Table 41: "5. The quantities produced and the frequency of renewal of collections should be regulated to avoid the generation of pre- and post-consumer waste". Reference: La Relève et la Peste, Overproduction of clothing explodes global limits.
447	9.1.3.; 2732	In Table 41, aspects of a durable product are listed, but these have no reference to the function that a garment fulfills. The ESPR definition of durability includes that of a product to maintain over time its function and performance under specified conditions of use, maintenance and repair. For certain garment categories, e.g. sport products or technical garments, the concept of function is key to product durability - e.g. waterproof, breathable, insulating, and once that property is lost, the garment can no longer fulfil its purpose.
448	9.1.3; Table 41 Line 2732 "Recyclability"	The market for second-hand clothing is currently facing significant challenges, making it essential to consider not just whether textiles can be reused, but whether they can actually be resold. Reuse can only be realized if there is sufficient demand for second-hand garments, and without a viable market, even textiles in good condition may not find a second life.
449	9.1.3; Table 41 Line 2732	The (perceived) value and quality of the textiles must be high enough to substantiate upgrading and repairing.

ID	Section & line	Comment
	"Repairability", "upgradability" and "possibility of refurbishment"	
450	9.1.3; Table 41 Line 2732 "Water use and water efficiency"	Laundering practices are beyond manufacturers' control. Clear evidence and examples are needed to demonstrate how a single garment can contribute to reducing water consumption during washing. Without such support, the proposal should be reconsidered.
451	9.1.3; Table 41 Line 2732 "Expected generation of waste"	"(...), (3) ideally it should be designed to increase emotional attachment to the user to limit the demand for new products, (...)" Measuring this aspect is not possible, as emotional attachment to garments varies by individual—some value timeless designs, while others prefer unique features. This variability makes setting specific requirements impossible.
452	9.1.3; 2732 - 2733	Table 41 & Table 42: We would propose include sustainably-sources renewable materials in Table 41 "Product aspects and required characteristics of products" along recycled content, and others listed, as a category on this own. Our vision is that all materials used by the industry are ultimately either recycled or sustainably sourced renewable. This would then also match the direction of the United Nations Fashion Industry Charter for Climate Change (UNFCCC) 2030 commitment around raw materials and aligns with the definition of circularity generally referenced by the industry, which includes both recycled and regeneratively-grown materials. (Ellen MacArthur Foundation) Additionally, we recognise the effort of the JRC to group product aspects and product parameters and their interaction to better analyse the impacts of the textile apparel industry. We note that the product aspect 'Use or content of sustainable renewable materials" has been connected to 'resource use and resource efficiency' and 'environmental impacts.' While we fully agree with the linkages made by the JRC, we believe that analysing the use of sustainably-sourced renewable materials, like regenerative and organic options, under environmental impacts only is insufficient to fully recognise the positive environmental benefit of sourcing sustainable materials has.
453	9.1.3; 2732	This formulation will prevent the development of less environmentally damaging types of fibre, which initially have very small volumes and as they cannot be efficiently sorted and thus not classified as recyclable. Efficiency in the beginning will not be done on a large scale and therefore it will be difficult to achieve efficiency Need a standard just like EN643 for PfR Need baling etc and a standard for this Yield/loss is always included in recycling Almost all clothes that are put on the market today and that will be sold on the international market contain disruptors, for us e.g. elastane and polyamide are a disruptor and are found in everything almost. In order to increase recycling, disruptors must be allowed and we must learn to manage and remove contaminants. Give us the opportunity to develop.
454	9.1.3.Grouping of relevant product	The criteria is favouring plastics by overweighting the importance of physical durability testing. Garments need to be strong enough to provide a long use phase, but evidence linking superior strength to increased textile longevity is lacking.

ID	Section & line	Comment
	aspects; 2732-2744	Synthetic fibre products consistently outperform natural fibre products in most physical durability tests due to the high tensile properties of fossil fuel-based textiles. Achieving the same level of durability is significantly easier and more cost-effective with polyester. As a result, Ecodesign criteria may unintentionally encourage the use of synthetic materials, which are a major driver of low-quality, disposable fashion—commonly associated with fast fashion. Moreover, the strength of a garment is not the dominating factor determining whether consumers keep it. Consumers keep/discard garments based on perceived value, quality and fit. (Access link: https://clothingresearch.oslomet.no/2022/10/19/review-of-clothing-disposal-reasons/). Literature suggests that approximately 60% of discarded textiles are disposed of due to lack of quality or failures in the garment itself (e.g. pillage, colour fastness properties, tear strength, dimension stability, zipper quality, etc.). The textile industry imperatively needs to address the low level of 'emotional durability' of textile products, which often contributes to the decision to discard them after a short time. An Ecodesign for textiles scheme that prioritizes physical durability—without clear evidence that strong physical performance extends a garment's lifespan—will disproportionately favour clothing made from synthetic materials and contradicts its goal of phasing out fast fashion.
455	9.1.3 Table 41: Product aspects and required characteristics of products; 2732	While we are glad that reusability was not excluded from the list of relevant ones, we do not believe that reusability should be grouped together with physical durability (as the report suggests from line 2736). Reusability should be considered in terms of whether subsequent users are able and willing to use the same product for a long period of time, and whether the functionality of the textile apparel is conducive to being reused by multiple users. In Table 41, the concept of reusability is too narrow and does not consider additional features that could be foreseen to incentivise subsequent use of the same product beyond physical durability attributes. Reusability should be considered in terms of the extent to which the design allows for fit to be adjusted. For instance, features such as wider hem allowances, extra lining in jackets, etc., can allow subsequent users to adjust the fit of the apparel product, thus potentially contributing to the extension of the product's lifetime. The reusability aspect must also include characteristics that do not refer purely to physical durability. Many external factors influence product reusability: the collection method chosen, consumer behaviours and preferences, collection & sorting infrastructure (availability of second hand-retail outlet, storage capacities), product price, etc. As an example, a report demonstrates the existing correlation between the textile collection method and the reusability of the collected textiles. For instance, in Wales, the reusability rate of textiles collected via container stands at 75.3%, compared to 54.6% for those gathered through door-to-door collection. Reference: WRAP (2022) Composition of textiles in Wales. Available here: https://wrapcymru.org.uk/resources/report/composition-textiles-wales
456	9.1.3 Table 41: Product aspects and required characteristics of products; 2732	We see a flaw in the definition of recyclability, especially point 4, insofar it does not consider the ability of a recycling technique to handle the volumes of apparel marketed in the EU at industrial scale and in a way that is economically viable. To be eligible , a recycling technique should not just be technologically ready, but also at scale and widely available and present in the EU. Otherwise, the definition would result in a loophole, whereby a huge volume of garment could be considered recyclable even if there is a small recycling plant very far from where the textile waste is generated and with a technology that is energy and resource-intensive and not economically interesting. > Equally, the inclusion of point 5 on ensuring that there are no substances that would disrupt the use of a recycled fibre precludes more stringent action on harmful chemicals in textile value chains (i.e. restrictions through performance requirements).
457	9.1.3 Table 41: Product aspects and required characteristics of products; 2732	Expected generation of waste Business practices are at the root of waste generation, regardless of the type of waste (pre-consumer, post-industrial, post-consumer). Overproduction practices, such as constant promotions and the rapid renewal of collections, lead to the devaluation of clothing. As overproduction is the main driver of waste generation, it is crucial that the criteria for expected waste generation include business practices. Clear criteria,

ID	Section & line	Comment
		such as production volumes and frequency of collection renewal, should be defined to take into account not only the quality but also the quantity of products placed on the market. The introduction of such requirements would also ensure consistency with other EU legislation, namely the eco-modulation rules under the Waste Framework Directive.
458	9.1.3; 2732	The criteria is favouring plastics by overweighting the importance of physical durability testing. Garments need to be strong enough to provide a long use phase, but evidence linking superior strength to increased textile longevity is lacking. Synthetic fibre products consistently outperform natural fibre products in most physical durability tests due to the high tensile properties of fossil fuel-based textiles. Achieving the same level of durability is significantly easier and more cost-effective with polyester. As a result, Ecodesign criteria may unintentionally encourage the use of synthetic materials, which are a major driver of low-quality, disposable fashion—commonly associated with fast fashion. > Moreover, the strength of a garment is not the dominating factor determining whether consumers keep it. Consumers keep/discard garments based on perceived value, quality and fit. (Access link: https://clothingresearch.oslomet.no/2022/10/19/review-of-clothing-disposal-reasons/). Literature suggests that approximately 60% of discarded textiles are disposed of due to lack of quality or failures in the garment itself (e.g. pillage, colour fastness properties, tear strength, dimension stability, zipper quality, etc.). The textile industry imperatively needs to address the low level of 'extrinsic durability' of textile products, which often contributes to the decision to discard them after a short time.
459	9.1.3; 2732	It seems that the JRC has prematurely decided that substances of concern will only be addressed by setting information requirements and not performance requirements. We remind the JRC that the definition of "substance of concern" is not just limited to substances that hamper recycling and that the setting of performance requirements shall also, where appropriate, reduce significant risks to human health or the environment, as foreseen in Article 6(3), second subparagraph, of the ESPR.
460	9.1.3; 2732	We welcome that the JRC recognises that recycled material should come from recyclable textile products and we would add that these textile products collected for recycling should be sourced locally/regionally to the fibre recycling site.
461	9.1.3; 2732	We see a flaw in the definition of recyclability, especially point 4, insofar it does not consider the ability of a recycling technique to handle the volumes of apparel marketed in the EU at industrial scale and in a way that is economically viable. To be eligible under point 4, a recycling technique should not just be technologically ready, but also at scale and widely available and present in the EU. Otherwise, the definition would result in a loophole, whereby a huge volume of garment could be considered recyclable even if there is a small recycling plant very far from where the textile waste is generated and with a technology that is energy and resource-intensive and not economically interesting. > Equally, the inclusion of point 5 on ensuring that there are no substances that would disrupt the use of a recycled fibre precludes more stringent action on harmful chemicals in textile value chains (i.e. restrictions through performance requirements).
462	9.1.3; 2732	We welcome that the definition of environmental impacts mentions aspects related to resource use and pollution, including microplastics, which should be minimised. Based on the Ellen MacArthur Foundation definition of circular economy, a product with low environmental impact should also contribute to regenerating nature. Hence it is important to consider aspects such as biodiversity and soil health, which could be currently overlooked in the present definition of environmental impacts.
463	9.1.3; 2732	Business practices are at the root of waste generation, regardless of the type of waste (pre-consumer, post-industrial, post-consumer). Overproduction practices, such as constant promotions and the rapid renewal of collections, lead to the devaluation of clothing. For example, in (ultra) fast-fashion leaders such as Shein, Zara and H&M, the average price of an item sold is €13.4, which encourages over-consumption. > As overproduction is the main driver of waste generation, it is crucial that the criteria for expected waste generation include business practices.£ > Clear criteria, such as production volumes and frequency of collection renewal, should be defined to take into account not only the quality but also the quantity of products placed on the market. The introduction of such requirements would also ensure consistency with other EU legislation, namely the eco-modulation rules under the Waste Framework Directive. We propose the following addition to Table 41: "5. The quantities produced and the frequency of renewal of collections should be regulated to avoid the

ID	Section & line	Comment
		generation of pre- and post-consumer waste". Reference: La Relève et la Peste, Overproduction of clothing explodes global limits.
464	1) Section 9.1.3 Grouping of relevant products aspects; 2732 / Table 41	We welcome the proposal to facilitate recycling. However, initially, recyclers need to address the current composition of existing materials. Therefore, the 4th and 5th criteria indicated in the recyclability definition are too constraining because: (i) only certain portions of fibre (in particular as relates to textiles made up of several fibers) may be recyclable and (ii) textiles usually contain certain elements or substances that will affect but not render impossible the collection, sorting, preparation for recycling or recycling. Some level of granularity should be included in (4) and (5). Taking this into account, we propose slight amendments to the definition of recyclability on points (4) and (5): “In order to be recyclable, an item of textile apparel should meet all the following five characteristics when it becomes waste: (1) it can be effectively collected; (2) it can be sorted, i.e. segregated from other waste and sent to the subsequent recycling pathways; (3) it can be prepared for recycling, or can be sent directly recycling without specific preparation; (4) its fibre content can partially be used as feedstock for one or more recycling techniques to produce recycled fibres usable in textile products (replace 'fully' with 'partially'); (5) it has no elements or substances that significantly disrupt the collection, sorting, preparation for recycling and recycling, or that limit prevent the use of the recycled fibre. “ (add 'significantly' disrupt and replace 'limit' with 'prevent'). We strongly advocate that fibre-to-fibre recycling be concerned only with textile waste as raw material for recycled content, as it will enable the development of a truly virtuous closed loop. In particular, the ESPR DA should promote PET recycled fiber that comes from a genuinely circular fiber-to-fiber approach, rather than

ID	Section & line	Comment
		from bottles. Moreover, how can we ensure that materials entering the recycling chain adhere to EU standards, considering the absence of verification for textile material characteristics imported from countries where EU regulations are not enforced? It is crucial to implement a system that guarantees all textile materials entering the EU market meet consistent minimum requirements and to establish a verification system for goods at entry points.
465	9.1.3; 2732 Table 41	Water use and water efficiency: Laundering activities are beyond the control of manufacturers. It is necessary to provide evidence and examples to demonstrate how a single item of apparel can reduce water consumption during laundry. Without such support, the proposal should be reconsidered. This report should include a solid and scientific foundation for the proposals to enable policymakers to make informed decisions.
466	9.1.3; 2732 Table 41	Recycled content: Existing test methods – such as chemical, physical and optical analyses – do offer approaches for identifying recycled materials or individual material components. However, due to significant practical and technical hurdles, it is currently not possible to precisely and reliably verify the recyclates. Standardised reference values are lacking for both recycled cotton and recycled polyester. The results are based solely on scientific interpretations, but these are not necessarily comparable or meaningful. Furthermore, the high costs of the tests are disproportionate to the result of the interpretative statements. The tests are complex, labour-intensive and correspondingly costly. In order to monitor markets in a meaningful way, large heterogeneous quantities of textiles would have to be tested. More cost-efficient and scalable test methods are therefore essential. On the one hand, a correct material declaration would be a helpful reference for deciding on the appropriate test method or, if necessary, for a suitable combination of several methods. On the other hand, it could also serve as a reference value for the result. However, a correct declaration would render the necessity of testing absurd. Research needs and solutions In order to be able to efficiently and economically verify the recyclate content in textiles, the existing testing methodology must be fundamentally improved or new methods developed. Furthermore, corresponding basic data and the resulting reference values are urgently needed. On the one hand, existing testing methods can be optimised. However, digital verification methods such as blockchain technologies would also be possible. Marker techniques also offer innovative solutions. Research and science are called upon to develop more economical and reliable methods. An analytical examination of new rPET types is also imperative. This research work is essential in order to consistently fulfil the objectives of the EU textile strategy and the requirements of the ESPR and the Green Claims Directive.
467	9.1.3; 2732 Table 41	Expected generation of waste: This topic reveals a very fundamental flaw in the study. In addition to physical criteria, there are other factors that contribute significantly to the long-term use of a product, such as comfort and fit. It also remains questionable and unclear how the study intends to deal with fashion aspects. If there are only design criteria for waste management, innovative and aesthetic product design cannot be restricted. “(3)ideally it should be designed to increase emotional attachment to the user to limit the demand for new products,”

ID	Section & line	Comment
		It's impossible to measure this aspect, as each customer may have different reasons for their emotional attachment to the garments. Some might prefer timeless pieces, while others value unique elements. This variability makes it impractical to set specific requirements.
468	9.1.3; 2732	Durability > The criteria is favouring plastics by overweighting the importance of physical durability testing. Garments need to be strong enough to provide a long use phase, but evidence linking superior strength to increased textile longevity is lacking. Synthetic fibre products consistently outperform natural fibre products in most physical durability tests due to the high tensile properties of fossil fuel-based textiles. Achieving the same level of durability is significantly easier and more cost-effective with polyester. As a result, Ecodesign criteria may unintentionally encourage the use of synthetic materials, which are a major driver of low-quality, disposable fashion—commonly associated with fast fashion. > Moreover, the strength of a garment is not the dominating factor determining whether consumers keep it. Consumers keep/discard garments based on perceived value, quality and fit. (Access link: https://clothingresearch.oslomet.no/2022/10/19/review-of-clothing-disposal-reasons/). Literature suggests that approximately 60% of discarded textiles are disposed of due to lack of quality or failures in the garment itself (e.g. pillage, colour fastness properties, tear strength, dimension stability, zipper quality, etc.). The textile industry imperatively needs to address the low level of 'extrinsic durability' of textile products, which often contributes to the decision to discard them after a short time.
469	9.1.3; 2732	Reliability > In Table 41, we believe that the interpretation of reliability is too narrow and is missing any consideration on technical textile apparel. In Section 2, technical textiles are defined as textile products meeting technical rather than aesthetic criteria and is acknowledged that sportswear and workwear may be considered technical textiles in certain instances. As an example, consumers may buy sports apparel believing the latter will have certain functionalities. However, if the consumer realises after the purchase that the apparel product does not have the functionality with which it was marketed, then the consumer will potentially discard it. In this case, the sports apparel was not reliable because the primary or secondary function of the product was no longer performed. > Hence, under the reliability product aspect, the PS should also consider the specific additional functions that technical textile apparel are marketed with. This aspect is missing from the reliability considerations in the PS. For example, the current Ecolabel criteria include testing for durability of function, as reported in Table 109.
470	9.1.3; 2732	Reusability > While we are glad that this product aspect was not excluded from the list of relevant ones, we do not believe that reusability should be grouped together with physical durability (as the report suggests from line 2736). > Reusability should be considered in terms of whether subsequent users are able and willing to use the same product for a long period of time, and whether the functionality of the textile apparel is conducive to being reused by multiple users. > In Table 41, the concept of reusability is too narrow and does not consider additional features that could be foreseen to incentivise subsequent use of the same product beyond physical durability attributes. Reusability should be considered in terms of the extent to which the design allows for fit to be adjusted. For instance, features such as wider hem allowances, extra lining in jackets, etc., can allow subsequent users to adjust the fit of the apparel product, thus potentially contributing to the extension of the product's lifetime. As is recognised in Table 98, good fit increases person-product attachment. > It is important to also consider the 'ecosystem' - i.e. reusability does not always translate to actual reuse. > In the context of the discussions around the exceptions to the ban on the destruction of unsold clothing and footwear, products may be unsuitable for preparing for re-use or remanufacturing due to technical unfeasibility to remove labels, logos and recognisable product design characteristics necessary to

ID	Section & line	Comment
		ensure compliance with intellectual property rights. Ecodesign requirements on reusability should address these shortcomings in order to ensure that perfectly fine products are not destroyed. > The reusability aspect must include characteristics that do not refer purely to physical durability. Many external factors influence product reusability: the collection method chosen, consumer behaviour and preferences, collection and sorting infrastructure (availability of second hand-retail outlet, storage capacities), product price, etc. As an example, a report demonstrates the existing correlation between the textile collection method and the reusability of the collected textiles. For instance, in Wales, the reusability rate of textiles collected via container stands at 75.3%, compared to 54.6% for those gathered through door-to-door collection. Reference: WRAP (2022) Composition of textiles in Wales. Available here: https://wrapcymru.org.uk/resources/report/composition-textiles-wales > The reusability aspect should include the following characteristics that are currently only foreseen for the recyclability aspect by the JRC: "(1) it can be effectively collected; (2) it can be sorted, i.e. segregated from other waste and sent to the subsequent [reuse] pathways; (3) it can be prepared [for reuse]". Argumentation: These factors have a strong influence on the actual reusability of products. The addition of these characteristics would also ensure coherency with the JRC draft proposal for end-of-waste criteria for reuse.
471	9.1.3; 2732	Repairability > The report mentions "access to repair services" as a foreseen required characteristic for the repairability aspect. While we welcome this element, we would like clarification on how this characteristic will be monitored. > The price of repair services is not included in the required repairability characteristic. However, the price of repair constitutes the main barrier for consumers to get their products repaired. 77% of European citizens are willing to repair their goods, but the high cost of repairs often prevents them from doing so. Reference: Eurobarometer 388 (2014) Attitudes of Europeans towards waste management and resource efficiency.
472	9.1.3; 2732	Substances of Concern > It seems that the JRC has prematurely decided that substances of concern will only be addressed by setting information requirements and not performance requirements. We remind the JRC that the definition of "substance of concern" is not just limited to substances that hamper recycling and that the setting of performance requirements shall also, where appropriate, reduce significant risks to human health or the environment, as foreseen in Article 6(3), second subparagraph, of the ESPR.
473	9.1.3; 2732	Recycled content > We welcome that the JRC recognises that recycled material should come from recyclable textile products and we would add that these textile products collected for recycling should be sourced locally/regionally to the fibre recycling site.
474	9.1.3; 2732	Recyclability > We see a flaw in the definition of recyclability, especially point 4, insofar it does not consider the ability of a recycling technique to handle the volumes of apparel marketed in the EU at industrial scale and in a way that is economically viable. To be eligible under point 4, a recycling technique should not just be technologically ready, but also at scale and widely available and present in the EU. Otherwise, the definition would result in a loophole, whereby a huge volume of garment could be considered recyclable even if there is a small recycling plant very far from where the textile waste is generated and with a technology that is energy and resource-intensive and not economically interesting. > Equally, the inclusion of point 5 on ensuring that there are no substances that would disrupt the use of a recycled fibre precludes more stringent action on harmful chemicals in textile value chains (i.e. restrictions through performance requirements).

ID	Section & line	Comment
475	9.1.3; 2732	Environmental impacts > We welcome that the definition of environmental impacts mentions aspects related to resource use and pollution, including microplastics, which should be minimised. Based on the Ellen MacArthur Foundation definition of circular economy, a product with low environmental impact should also contribute to regenerating nature. Hence it is important to consider aspects such as biodiversity and soil health, which could be currently overlooked in the present definition of environmental impacts.
476	9.1.3; 2732	Expected generation of waste > Business practices are at the root of waste generation, regardless of the type of waste (pre-consumer, post-industrial, post-consumer). Overproduction practices, such as constant promotions and the rapid renewal of collections, lead to the devaluation of clothing. For example, in (ultra) fast-fashion leaders such as Shein, Zara and H&M, the average price of an item sold is €13.4, which encourages over-consumption. > As overproduction is the main driver of waste generation, it is crucial that the criteria for expected waste generation include business practices. > Clear criteria, such as production volumes and frequency of collection renewal, should be defined to take into account not only the quality but also the quantity of products placed on the market. The introduction of such requirements would also ensure consistency with other EU legislation, namely the eco-modulation rules under the Waste Framework Directive. We propose the following addition to Table 41: "5. The quantities produced and the frequency of renewal of collections should be regulated to avoid the generation of pre- and post-consumer waste". Reference: La Relève et la Peste, Overproduction of clothing explodes global limits.
477	9.1.3; 2732	Table 41, under section Resource use and resource efficiency mentions "consume raw materials produced in a sustainable way". This product aspects demands the uptake of renewability as ecodesign requirement. In the case of products made from wood fibres these should be considered as renewable as they are made from fibres that come from sustainably managed forests, as defined by Forest Europe and certified by internationally recognized schemes such as PEFC and FSC.
478	9.1.3; 2732	Table 41 – "recycled content": the concept of " textile-to-textile" recycling should be used instead of "fibre-to-fibre" as fibre-to-fibre recycling also may include recycling of discarded textiles to fibres used in nonwoven material – which can be an open-loop approach. However, it is important to recognize that various recycling technologies (chemical and thermomechanical) can enable circularity by transforming nonwoven materials back into textile-grade fibres.
479	9.1.3; 2732	Reliability should also assess the specific function that the textile is marketed with, e.g. in case of sportswear and workwear.
480	9.1.3; 2732	The criteria favour plastics by placing too much emphasis on physical durability testing. While garments must be strong enough for long-term use, there is no clear evidence that greater strength leads to longer textile lifespan. Synthetic fibre products consistently outperform natural fibres in most durability tests because fossil fuel-based textiles have high tensile strength. Achieving comparable durability is much easier and more affordable with polyester. Consequently, the Ecodesign criteria may unintentionally promote synthetic materials, which contribute significantly to low-quality, disposable fashion often linked to fast fashion.
481	9.1.3; 2732	We welcome the inclusion of resource use and pollution, including microplastics, in the definition of environmental impacts, and agree that these should be minimised. According to the Ellen MacArthur Foundation's definition of circular economy, a product with a low environmental impact should also contribute to regenerating nature. This is particularly important when considering the livelihoods of smallholder farmers, as their work often relies on healthy ecosystems. Natural fibres, which support these farmers, play a vital role in sustaining their income and promoting biodiversity. Therefore, it is essential to expand the definition of environmental impacts to also consider key factors like biodiversity and soil health, which are often overlooked but are critical to both ecological regeneration and the wellbeing of smallholder farmers.

ID	Section & line	Comment
484	9.1.3; 2732	Table 41: recalling to keep in mind that the ESPR is intended focus on raising the minimum eco-design standards for all products sold on the market: The word “highly” is used in the majority of the definitions in Table 41 outlining the required characteristics of products. It implies that the regulation will only accept products with an aspirational durability/eco-design performance level, instead of it defining the general baseline/minimum requirements for what a more sustainable product would be, which should be the initial intention of the ESPR and the delegated act for apparel textiles.
485	9.1.3; 2732	Table 41: Product aspect – Durability We do not agree with “a highly durable product should have the resistance of soiling”, for the reason that there is no reason for adding unnecessary chemicals to the fabric to prevent soil and therefore suggest removing it as a parameter for durability. This is also inconsistent with table 44, as it is not referenced there.
486	9.1.3.; 2732 Table 41	"Existing test methods – such as chemical, physical and optical analyses – do offer approaches for identifying recycled materials or individual material components. However, due to significant practical and technical hurdles, it is currently not possible to precisely and reliably verify the recyclates. Standardised reference values are lacking for both recycled cotton and recycled polyester. The results are based solely on scientific interpretations, but these are not necessarily comparable or meaningful. Furthermore, the high costs of the tests are disproportionate to the result of the interpretative statements. The tests are complex, labour-intensive and correspondingly costly. In order to monitor markets in a meaningful way, large heterogeneous quantities of textiles would have to be tested. More cost-efficient and scalable test methods are therefore essential. On the one hand, a correct material declaration would be a helpful reference for deciding on the appropriate test method or, if necessary, for a suitable combination of several methods. On the other hand, it could also serve as a reference value for the result. On the other hand, a correct declaration would render the necessity of testing absurd. Research needs and solutions In order to be able to efficiently and economically verify the recyclate content in textiles, the existing testing methodology must be fundamentally improved or new methods developed. Furthermore, corresponding basic data and the resulting reference values are urgently needed. On the one hand, existing testing methods can be optimised. However, digital verification methods such as blockchain technologies would also be possible. Marker techniques also offer innovative solutions. Research and science are called upon to develop more economical and reliable methods. An analytical examination of new rPET types is also imperative. This research work is essential in order to consistently fulfil the objectives of the EU textile strategy and the requirements of the Ecodesign Directive and the Green Claims Directive. "
487	9.1.3.; 2732	"Expected waste generation: This topic reveals a very fundamental flaw in the study. In addition to physical criteria, there are other factors that contribute significantly to the long-term use of a product, such as comfort and fit. It also remains questionable and unclear how the study intends to deal with fashion aspects. If there are only design criteria for waste management, innovative and aesthetic product design cannot be restricted."
488	9.1.3; 2732	Table 41 – Environmental performance levels: while ESPR is intended to raise the minimum environmental performance level for all textile apparel products placed on the market, the word “highly” is used in most of the definitions in Table 41 outlining the required characteristics of products. It seems to imply that only products with an aspirational durability/eco-design performance level will be accepted, instead of it defining the general baseline/minimum requirements for what a durable product would be, which is the initial intention of the ESPR and the delegated act for apparel textiles.

ID	Section & line	Comment
		Table 41 – Durability: We do not agree with "a highly durable product should have the resistance of soiling", since there is no reason for adding unnecessary chemicals to the fabric to prevent soil and therefore suggest removing it as a parameter for durability. This is also inconsistent with table 44, as it is not referenced there. Table 41 - Water use & water efficiency: Laundering activities are beyond the control of manufacturers. It is necessary to provide evidence and examples to demonstrate how a single item of apparel can reduce water consumption during laundry. Without such support, the proposal should be reconsidered. Table 41 - Expected generation of waste: "ideally it should be designed to increase emotional attachment to the user to limit the demand for new products," It's impossible to measure such subjective attachment, as each customer may have different reasons for their emotional attachment to the garments. Some might prefer timeless pieces, while others value unique elements. This variability makes it impractical to set specific requirements. Ecodesign measures must be measurable and verifiable. Table 41 – We recommend excluding soiling as it is very specific. Characteristics as resistance to soiling should not be a requirement for apparel with normal everyday wear or for fashion apparel as there is no reason for adding unnecessary chemicals to the fabric to prevent soil. Indeed, Resistance to soiling is more a parameter for workwear as it will be more exposed to heavy dirt etc.
489	Chapter 9; 2732 table 41 recycled content	In the text has been mentioned that recycled content is only about apparel containing recycled material. We strongly suggest to add the use of a minimum % recycled (fiber to fiber) content in all textile products. We do see a minimum use of recycled content a priority within the ESPR. Given studies claim the possibilities to do so, next to the fact that demand is needed to upscale fiber-to-fiber production. o ESPR minimum % recycled content: https://www.rijksoverheid.nl/documenten/rapporten/2023/09/26/bijlage-eindrapport-onderzoek-designeisen-textiel o EPR study on % recycled content: https://www.rijksoverheid.nl/documenten/rapporten/2023/09/26/bijlage-eindrapportage-deelvraag-1-en-2-onderzoek-upv-textiel o availability of recled content: https://www.rijksoverheid.nl/documenten/rapporten/2024/12/04/bijlage-2-rapport-onderzoek-naar-potentie-van-recyclaat-in-textiel
490	9.1.3; 2732	In Table 41, we believe that the interpretation of reliability is too narrow and is missing any consideration on technical textile apparel. In Section 2, technical textiles are defined as textile products meeting technical rather than aesthetic criteria and is acknowledged that sportswear and workwear may be considered technical textiles in certain instances. As an example, consumers may buy sports apparel believing the latter will have certain functionalities. However, if the consumer realises after the purchase that the apparel product does not have the functionality with which it was marketed, then the consumer will potentially discard it. In this case, the sports apparel was not reliable because the primary or secondary function of the product was no longer performed. Hence, under the reliability product aspect, the PS should also consider the specific additional functions that technical textile apparel are marketed with. This aspect is missing from the reliability considerations in the PS. For example, the current Ecolabel criteria include testing for durability of function, as reported in Table 109.
491	9.1.3; 2732	In Table 41, the concept of reusability is too narrow and does not consider additional features that could be foreseen to incentivise a subsequent use of the same product beyond physical durability attributes. For instance, wider hem allowance, extra lining in jackets, etc., could allow subsequent users to adjust the fit of the apparel product, thus potentially contributing to the extension of the product's lifetime. As also recognised in Table 98, good fit increases person-product attachment. Furthermore, in the context of the discussions around the exceptions to the ban on the destruction of unsold clothing and footwear, products may be unsuitable for preparing for re-use or remanufacturing due to technical unfeasibility to remove labels, logos and recognizable product design characteristics necessary to ensure compliance with intellectual property rights. Ecodesign requirements on reusability should address these shortcomings and ensure that perfectly fine

ID	Section & line	Comment
		products are not destroyed. It is important to also consider the 'ecosystem' - i.e. reusability does not always translate to actual reuse. The reusability aspect should include the following characteristics that are currently only foreseen for the recyclability aspect by the JRC: "(1) it can be effectively collected; (2) it can be sorted, i.e. segregated from other waste and sent to the subsequent [reuse] pathways; (3) it can be prepared [for reuse]". Argumentation: These factors have a strong influence on the actual reusability of products. The addition of these characteristics would also ensure coherency with the JRC draft proposal for end-of-waste criteria for reuse.
492	9.1.3; 2732	The report mentions "access to repair services" as a foreseen required characteristic for the repairability aspect. While we welcome this element, we would like clarification on how this characteristic will be monitored. The price of repair services is not included in the required repairability characteristic. However, the price of repair constitutes the main barrier for consumers to get their products repaired. 77% of European citizens are willing to repair their goods, but the high cost of repairs often prevents them from doing so. Reference: Eurobarometer 388 (2014) Attitudes of Europeans towards waste management and resource efficiency.
493	9.1.3; 2732	While we welcome that the presence of substances of concern will be addressed separately, we are concerned by how this paragraph is phrased. It seems that the JRC has already decided that substances of concern will only be addressed by setting information requirements and not performance requirements. This decision is premature and does not belong in Task 4. We remind the JRC that the definition of " substance of concern" is not just limited to substances that hamper recycling and that setting of performance requirements shall also, where appropriate, reduce significant risks to human health or the environment, as foreseen in Article 6(3), second subparagraph, of the ESPR.
494	9.1.3; 2732	We welcome that the JRC recognises that recycled material should come from recyclable textile products and we would add that these textile products collected for recycling should be sourced locally/regionally to the fibre recycling site.
495	9.1.3; 2732	We see a flaw in the definition of recyclability, especially point 4, insofar it does not consider the ability of a recycling technique to handle the volumes of apparel marketed in the EU at industrial scale and in a way that is economically viable. To be eligible under point (4), a recycling technique should not just be technologically ready, but also at scale and widely available and present in the EU. Otherwise, the definition would result in a loophole, whereby a huge volume of garment could be considered recyclable even if there is a small recycling plant very far from where the textile waste is generated and with a technology that is energy and resource-intensive and not economically interesting. Furthermore, we suggest adding in point (1) that textile waste can be effectively separately collected; and in point (2) that it can be sorted, i.e. segregated from other waste and sent to the subsequent recycling pathways without affecting the recyclability of other waste streams.
496	9.1.3; 2732	We welcome that the definition of environmental impacts mentions aspects related to resource use and pollution, including microplastics, which should be minimised. Based on the EMF definition of circular economy, a product with low environmental impact should also contribute to regenerating nature. Hence it is important to consider aspects such as biodiversity and soil health, which could be currently overlooked in the present definition of environmental impacts.
497	9.1.3; 2732	Business practices are at the root of waste generation, regardless of the type of waste (pre-consumer, post-industrial, post-consumer). Overproduction practices, such as constant promotions and the rapid renewal of collections, lead to the devaluation of clothing. As overproduction is the main driver of waste generation, it is crucial that the criteria for expected waste generation include business practices. Clear criteria, such as production volumes and frequency of collection renewal, should be defined to take into account not only the quality but also the quantity of products placed on the market. We propose the following addition to Table 41: "5. The quantities produced and the frequency of renewal of collections should be regulated to avoid the generation of pre-consumer, post-industrial, post-consumer".
498	9.1.3; 2732	"Expected waste generation: This topic reveals a very fundamental flaw in the study. In addition to physical criteria, there are other factors that contribute significantly to the long-term use of a product, such as comfort and fit. It also remains questionable and unclear how the study intends to deal with fashion aspects. If there are only design criteria for waste management, innovative and aesthetic product design cannot be restricted."

ID	Section & line	Comment
510	9.1.3; 2732	Many external factors influence product reusability: consumer behaviours and preferences, collection and sorting infrastructure (the collection method chosen, storage capacities, availability of second-hand retail outlets), product price, etc. Therefore, the product aspect of reusability must include characteristics that do not refer purely to physical durability. As an example, a report demonstrates the existing correlation between the textile collection method and the reusability of the collected textiles. For instance, in Wales, the reusability rate of textiles collected via container stands at 75.3%, compared to 54.6% for those gathered through door-to-door collection. (Reference: WRAP (2022) Composition of textiles in Wales. Available here: https://wrapcymru.org.uk/resources/report/composition-textiles-wales).
511	9.1.3; 2732	Factors including textile collection, handling and sorting have a strong influence on the actual reusability of products. In addition, the inclusion of these characteristics in the product aspect of reusability would ensure consistency with the JRC draft proposal on end-of-waste criteria for reuse, which sets out specific collection and sorting criteria for textile waste to be considered reusable. The product aspect of reusability should therefore include the following characteristics that are currently only foreseen for the recyclability aspect in the JRC preparatory study: "(1) it can be effectively collected; (2) it can be sorted, i.e. segregated from other waste and sent to the subsequent [reuse] pathways; (3) it can be prepared [for reuse]".
512	9.1.3; 2732	The report mentions "access to repair services" as a foreseen required characteristic for the product aspect of repairability. While we welcome this element, we would like clarification on how this characteristic will be effectively monitored.
513	9.1.3; 2732	The price of repair services is not included in the required repairability characteristic. However, the price of repair constitutes the main barrier for consumers to get their products repaired. 77% of European citizens are willing to repair their goods, but the high cost of repairs often prevents them from doing so. (Reference: Eurobarometer 388 (2014) Attitudes of Europeans towards waste management and resource efficiency. Available here: https://op.europa.eu/en/publication-detail/-/publication/e3932343-3c82-4a5f-8a1a-e22eafd050a6). One way to consider the repair price as a criterion should be to follow the logic developed in the revised Waste Framework Directive and use the repair incentives provided by producers as a required repairability characteristic. The repair incentive should be understood as the likelihood that the product will be repaired based on its repair cost ratio and/or the provision of a repair service by the producer.
514	9.1.3; 2732	The product aspect of the expected generation of waste should have a broader scope to include post-industrial and pre-consumer waste. This is because no real recovery solutions exist for these flows. In 2019, the EU generated about 12.6 Mt of textile waste, including 11% of post-industrial waste and 3% of pre-consumer waste. About 90% of post-industrial and pre-consumer waste was incinerated and landfilled, and about 10% was recycled. (Reference: Preparatory Study on textiles for product policy instruments – the initial questionnaire. Available here: https://susproc.jrc.ec.europa.eu/product-bureau/product-groups/467/documents). The introduction of pre-consumer waste (at manufacturing and retailer stages in the EU) in the scope of this product aspect is an important step to ensure that the overgeneration of textile waste and the issue of the large volumes of unsold goods is addressed at the EU level. This would be a consistent and complementary effort to the ban on the destruction of unsold goods.
515	9.1.3; 2732	Business practices are at the root of waste generation, regardless of the type of waste: pre-consumer, post- industrial, and post-consumer waste. Overproduction practices, such as constant promotions and the rapid renewal of collections, lead to the devaluation of clothing. For example, in fast and ultra-fast fashion leaders such as Shein, Zara and H&M, the average price of an item sold is €13.4, which encourages over-consumption. (Reference: Kantar Worldpanel). As overproduction is the main driver of waste generation, required characteristics of the product aspect of expected waste generation must consider business practices. Clear criteria should be defined to account for the quality and quantity of products placed on the market. Such criteria should encompass: • the width of the product range [understood as the number of product references offered for sale by a producer, with defined thresholds per market segment],

ID	Section & line	Comment
		• the frequency of offers, [understood as the number of references per market segment offered for sale by a producer in a given period]. The introduction of such requirements would also ensure consistency with other EU legislation, namely the ecomodulation rules under the revised Waste Framework Directive. We propose the following addition to reflect the above comment "5. The width of the product range and the frequency of offers should be regulated to avoid the generation of pre- and post-consumer waste".
516	Chapter 9; 2732 & 2766	Table 41, we have a few comments. The characteristics of reliability are the same as the characteristics of durability. This sounds like technical durability to us. If you want to differentiate, then reliability is the description of emotional durability as it is described here. Disassembly should not be part of durability. Should be part of repairability. Upgradability: this description doesn't apply to textiles, it sounds more like an electric device. Presence of substances of concern: characteristics mentioned are only that information should be available. But SoC shoudn't be in the product. Suggestion to add that some SoC shoudn't be in the product. The presence of SoC must always be analysed. Also for line 2766.
517	9.1.3 (page 99); 2732	Table 41: In general, we agree with the definition of recyclability. However, we would like to highlight certain aspects regarding why some materials meet this criterion while others do not. First, sorting and recycling efforts will naturally develop around the most readily available types of textile waste. Since the majority of textiles are produced from commodity fibers—primarily polyester and cotton—it is understandable that waste from these materials is the most prevalent. Consequently, recycling investments and infrastructure are often concentrated in areas where businesses can achieve the highest growth and processing volumes. It is crucial to avoid penalizing materials that do not generate significant volumes of textile waste by labeling them as non-recyclable. Such classification could create a negative perception, discouraging their use—even when their limited presence in waste streams results from lower production volumes rather than inherent recyclability issues. Furthermore, we urge consideration of the highly specialized nature of the European textile and fiber industry. If definitions and requirements inadvertently favor commodity materials, this could have unintended consequences, potentially disadvantaging sectors that rely on innovative or specialized fiber solutions. Ensuring a balanced and forward-looking approach will be essential to maintaining a diverse and competitive textile industry.
543	9.1.3 Interaction between product aspects and product parameters reported in Annex I to ESPR; 2733	While we welcome the exercise of Table 42, we would like to stress that the list of parameters set out in Annex I of the ESPR is not a closed list. Further parameters could be explored that are relevant for textiles. A further comment on Table 42 is that Modularity is also an important parameter for recyclability as different materials should be easy to separate.
545	9.1.3; 2733	While we welcome the exercise of Table 42, we would like to stress that the list of parameters set out in Annex I of the ESPR is not a closed list. Further parameters could be explored that are relevant for textiles.

ID	Section & line	Comment
		A further comment on Table 42 is that Modularity is also an important parameter for recyclability as different materials should be easy to separate.
546	9.1.3; 2733	As regards the product parameter "use of content of sustainable renewable materials", as per Annex I ESPR, it has an effect not only on the product aspects "resource use" and "environmental impacts". Following the definition of the EEA (https://www.eea.europa.eu/help/glossary/gemet-environmental-thesaurus/renewable-raw-material), materials such as organic and regenerative cotton can be considered as "sustainable renewable materials". These are known for, among other things, lower water use and lower energy use, as this recent report shows (https://www.fairtrade.net/en/get-involved/library/evaluating-the-environmental-impact-of-fairtrade-certified-cotto.html). Therefore, the parameter should also be seen as having an effect on these other product aspects. We agree with the mention of revising the Ecolabel to "consider ethical and social aspects where appropriate", but request to be more specific. As the 2020-2024 working plan of the EU Ecolabel notes, the Ecolabel criteria for textiles (expiring 31 December 2025) are to be revised in synergy with the Ecodesign criteria. Criterion 26 of the current Ecolabel criteria sets out an expectation of corporate social responsibility, by which fundamental principles and rights at work as described in the core ILO conventions shall be respected on production sites (CMT). As the Ecodesign criteria Life Cycle assessment will begin at the raw materials phase in order to have a complete assessment, it is important to also extend these labour rights criteria to the raw materials sites, such as cotton farms. Additionally, the conventions referred to under the labour rights criterion should be aligned with the CSDDD and the labour rights conventions this Directive refers to in the Annex. This would promote policy alignment, and thereby reduce regulatory burden in accordance with the Commission's Working Plan. Additionally, as the current study will also inform the revision of the Ecolabel, the preparatory study should assess standards for social aspects, and whether they are fit to the current challenges of the sector or need to revised in the Ecolabel. This should include assessing whether criterion 26 should include an expectation to "respect" labour rights, or whether it should also include a verification mechanism.
548	9.1.3; 2733-2766	Substances of concern. Table 42 is showing a risk matrix that reflects the interaction between product aspects and product parameters reported in Annex I to ESPR. It is important to highlight that "Presence of substances of concern" has only one interaction in the whole table, the interaction with "Use of substances, in particular the use of substances of concern", while the statement included in line 2766 is claiming the presence of substances of concern strongly affecting other product aspects. It seems strange to give so much emphasis on presence of SoC in line 2766 and only state one interaction on table 42. We suggest you reevaluate the table or the wording to confirm the message you want to report and eliminate any kind of contradiction that could mislead the reader.
549	9.1.3; 2733	While we welcome the exercise of Table 42, we would like to stress that the list of parameters of Annex I to ESPR is not a closed list and further parameters could be explored that are relevant for textiles.
550	9.1.3; 2733	Due to the high product diversity, only simple and easily implementable approaches should be used for textiles. A piece of clothing cannot be categorized according to simple criteria such as the energy class and, due to the complex material diversity, product group, areas of application and other requirements, it has to fulfil a high and complex range of standards already. A reduction to an easily definable criterion must be made, which could be basic material properties. Recommendation to focus in general on the main material and refer the test standards to it"
557	9.1.3; 2736-2740	As mentioned above, we do not agree with grouping durability with reliability and reusability. Reliability should also consider the specific additional functions that technical textile apparel is marketed with (including sportswear and workwear since the PS acknowledges that sportswear and workwear may be considered technical textiles in certain instances). For technical textile apparel to be reliable, companies that place it on the market should test it against standards that certify that the product will provide the function for which it is marketed (for example water repellent, watertight, etc.). Reusability is not just about health risks, but also about ensuring that subsequent users are able and willing to use the same product, hopefully for long. Hence, the PS should assess if there could be features that a product should have to fit the needs of different consumers and be kept in use for longer (wider hem allowance, extra lining in jackets, etc.). We also favour a holistic approach to durability, despite the fact that ESPR defines durability as physical durability only. To fully address durability and the impacts of the ultra-fast fashion, we need to consider all aspects of durability – physical and emotional as well as how sustainably garments are produced.
558	9.1.3; 2736-2740	As mentioned above, we do not agree with grouping durability with reliability and reusability. Reliability should also consider the specific additional functions that technical textile apparel is marketed with (including sportswear and workwear since the PS acknowledges that sportswear and workwear may be considered technical textiles in certain instances). For technical textile apparel to be reliable, companies that place it on the market should test it against standards that

ID	Section & line	Comment
		certify that the product will provide the function for which it is marketed (for example water repellent, watertight, etc.). Reusability is not just about health risks, but also about ensuring that subsequent users are able and willing to use the same product, hopefully for long. Hence, the PS should assess if there could be features that a product should have to fit the needs of different consumers and be kept in use for longer (wider hem allowance, extra lining in jackets, etc.). We also favour a holistic approach to durability, despite the fact that the ESPR defines durability as physical durability only. To fully address durability and the impacts of the ultra-fast fashion, we need to consider all aspects of durability – physical and emotional as well as how sustainably garments are produced.
559	9.1.3; 2736-2740	We do not agree with grouping durability with reliability and reusability. Reliability should also consider the specific additional functions that technical textile apparel is marketed with (including sportswear and workwear since the PS acknowledges that sportswear and workwear may be considered technical textiles in certain instances). For technical textile apparel to be reliable, companies that place it on the market should test it against standards that certify that the product will provide the function for which it is marketed (for example water repellent, watertight, etc.). Reusability is not just about health risks, but also about ensuring that subsequent users are able and willing to use the same product, hopefully for long. Hence, the PS should assess if there could be features that a product should have to fit the needs of different consumers and be kept in use for longer (wider hem allowance, extra lining in jackets, etc.). Furthermore, in the context of the discussions around the exceptions to the ban on the destruction of unsold clothing and footwear, products may be unsuitable for preparing for re-use or remanufacturing due to technical unfeasibility to remove labels, logos and recognizable product design characteristics necessary to ensure compliance with intellectual property rights. Ecodesign requirements on reusability should address these shortcomings and ensure that perfectly fine products are not destroyed.
560	9.1.3; 2736-2744	We fully support grouping product aspects durability, reliability and reusability. The latter two most definitely follow good quality of products.
561	9.1.3; 2736	The reusability of a product is not only determined by its (physical) durability. Durability and reusability are two different aspects of a product. As a consequence, separate criteria should be developed for the product aspect of durability and the product aspect of reusability.
563	9.1.3; 2740-2744	While emotional durability is important, it lacks a clear definition and scientific support on its impact. As it is not an intrinsic product characteristic, it is difficult to analyse. Ecodesign requirements should be measurable, evidence-based, and within manufacturers' control.
564	9.1.3; 2740-2744	While we acknowledge the importance and need for further research into emotional durability, we stress that the concept lacks a clear definition and is not supported by sufficient scientific research regarding its impact on the use of garments. It is not an intrinsic characteristic of the product, making it challenging to analyse comprehensively. Ecodesign requirements should be evidence-based, measurable, and pertain to aspects of the product that can be controlled during design and manufacturing. Consequently, more research is needed into this topic before any requirements are set.
566	9.1.2; 2740-2744	Emotional durability lacks a clear definition and is not supported by sufficient scientific research regarding its impact on the use of garments. It is not an intrinsic characteristic of the product, making it challenging to analyse comprehensively. Ecodesign legal requirements should be evidence-based, measurable, and pertain to aspects of the product that can be controlled during design and manufacturing. Consequently, emotional durability should not be considered in this context.
567	9.1.3; 2740-2744	Emotional durability lacks a clear definition and is not supported by sufficient scientific research regarding its impact on the use of garments. It is not an intrinsic characteristic of the product, making it challenging to analyse comprehensively. Ecodesign legal requirements should be evidence-based, measurable, and pertain to aspects of the product that can be controlled during design and manufacturing. Consequently, emotional durability should not be considered in this context.
571	9.1.3; 2742	It is essential that emotional durability is also considered when assessing the durability of textiles. For consumers, clothing and fashion items have an emotional value beyond their technical function. This is even more so in the era of fast fashion, which is based on how quickly products become emotionally redundant for consumers. It is important that the definition of durability also considers factors that drive the replacement of textiles which might not have reached the end of their physical lifetime.
572	9.1.3; 2745-2747	We believe that the PS should also assess design options to make products easier to maintain and not just limit the maintenance aspects to information requirements. For instance, limit the need to dry-clean a product to very exceptional circumstances. If maintenance is easier, consumers may be empowered and incentivised to save water and energy during the use phase." We wanted to focus on limiting dry cleaning, but it could read as promoting the easing of the maintenance of products with the use of more chemicals during the finishing - a trade-off that, as of now, we do not want to risk. If you have already submitted it, it is not a big deal, let's keep the focus on limiting dry cleaning.
573	9.1.3; 2752-2753	From how the sentence is phrased, it seems that the aspect on generation of waste will only focus on ensuring feedstock to the recycling system. We recommend rephrasing to ensure that it will also evaluate design requirements to prevent the generation of waste in the first place.

ID	Section & line	Comment
574	9.1.3; 2752-2753	From how the sentence is phrased, it seems that the aspect on generation of waste will only focus on ensuring feedstock to the recycling system. We recommend rephrasing to ensure that it will also evaluate design requirements to prevent the generation of waste in the first place.
575	9.1.3; 2752-2753	From how the sentence is phrased, it seems that the aspect on generation of waste will only focus on ensuring feedstock to the recycling system. We recommend rephrasing to ensure that it will also evaluate design requirements to prevent the generation of waste in the first place.
576	Chapter 9.1.3; 2754	Grouping of Recycled Content and Recyclability "The fifth group gathers recyclability and recycled content, because recycled material should come from recyclable textile products. From this perspective, these product aspects share the same ecosystem and are affected by the same process techniques, business models, legislation, and industrial practices" (Line 2754-2757). Merging of the product aspects of "Recyclability" and "Recycled content" into one group limits the scope of recycled content to only textile based feedstock (Closed Loop). Rationale: To unlock textiles recyclability, Open-loop recycling, where textiles are converted into high-quality non-textile products or where other material streams may be recycled into raw material for textiles replacing virgin fossil feedstocks, should be accounted for as an additional essential contribution to circular economy next to closed-loop recycling. By allowing for cross-industry linkages, open-loop recycling ensures that economically efficient circular strategies are possible. Closed-loop (e.g., fiber-to-fiber, textile-to-textile, garment-to-garment) recycling might be considered a sub-target of circularity and incentivized, e.g., by reduced EPR fees Recommendation: Keep product aspects of recyclability & recycled content (Line 2754) separate.
577	9.1.3; 2754-2757	A thematic combination is not appropriate at this point and for the purposes of this consideration. The proportion of recycled material in the end product and its use as a raw material has a completely different perspective than the return of textiles as possible recyclable material. A distinction should be made here because the verification of recyclates in the end product cannot be standardised across different components and materials. The topic of recyclability touches on a different aspect here. Only when both aspects have been examined in detail and on a sound basis can a combined evaluation be carried out to then check, if necessary, whether and how the recycled material used can be returned to the cycle. It depends on material flows, availability, technologies and overall ecological considerations, cross-sector thinking will be necessary.
578	9.1.3.; 2754-2757	A thematic combination is not appropriate at this point and for the purposes of this consideration. The proportion of recycled material in the end product and its use as a raw material has a completely different perspective than the return of textiles as possible recyclable material. A distinction should be made here because the verification of recyclates in the end product cannot be standardised across different components and materials. The topic of recyclability touches on a different aspect here. Only when both aspects have been examined in detail and on a sound basis can a combined evaluation be carried out to then check, if necessary, whether and how the recycled material used can be returned to the cycle. Not necessarily, does depend on material flows, availability, technologies and overall ecological considerations, cross-sector thinking will be necessary
579	9.1.3; 2754	Not necessarily, does depend on material flows, availability, technologies and overall ecological considerations, cross-sector thinking will be necessary.

ID	Section & line	Comment
580	9.1.3; 2754	The recyclability and recycled content should not be grouped. Indeed, the recycled content origin should be an opened loop, and comes from other deposits than textile. For example : recycled polyester from plastic bottle, etc. It permits to take into accound other waste type. Moreover, the textile waste can be used in other business sector, as building industry,...
581	9.1.3; 2754--5757	We do not agree with grouping of recyclability and recycled content. These should be evaluated separately.
583	9.1.3 Grouping of relevant product aspects; 2764-2765	According to the Preparatory Study (PS), Task 5 is expected to include a specific analysis on microplastics release in the whole life cycle of textile products. However, according to the responses provided by the JRC on the feedback for the 1st milestone and the online workshops held, this analysis is stated to encompass synthetic microfibres (microplastics), man-made cellulosic fibres (MMCFs), and natural fibres. We strongly support this comprehensive approach, and we request that the Preparatory Study explicitly reflects this scope in its documentation. Right now, the wording in the PS does not make it sufficiently clear whether all fibre types will be equally addressed regarding microfibre release, creating ambiguity of the focus of Task 5. It is essential to maintain consistency and coherence in the analysis to ensure that the resulting draft delegated act for textiles accurately reflects the range of microfibre release. Additionally, we stress that terms such as "microfibres" and "microplastics" should not be used interchangeably, as this may lead to misunderstandings about the scope of the study and the resulting legal requirements for market entry. Ensuring clarity in both wording and scope is critical for developing effective and fair analysis of potential ecodesign requirements.
585	9.1.3; 2766-2771	While we welcome that the presence of substances of concern will be addressed separately, we are concerned by how this paragraph is phrased. It seems that the JRC has already decided that substances of concern will only be addressed by setting information requirements and not performance requirements. This decision is premature and does not belong in Task 4. We remind the JRC that the definition of “substance of concern” is not just limited to substances that hamper recycling and that setting of performance requirements shall also, where appropriate, reduce significant risks to human health or the environment, as foreseen in Article 6(3), second subparagraph, of the ESPR.
586	9.1.3; 2766-2771	While we welcome that the presence of substances of concern will be addressed separately, we are concerned by how this paragraph is phrased. It seems that the JRC has already decided that substances of concern will only be addressed by setting information requirements and not performance requirements. This decision is premature and does not belong in Task 4. We remind the JRC that the definition of “substance of concern” is not just limited to substances that hamper recycling and that setting of performance requirements shall also, where appropriate, reduce significant risks to human health or the environment, as foreseen in Article 6(3), second subparagraph, of the ESPR.
587	9.1.3; 2766-2771	It appears that the JRC has prematurely concluded that substances of concern will only be addressed through information requirements, rather than performance requirements. The definition of “substance of concern” extends beyond just those that hinder recycling. The establishment of performance requirements should, where relevant, also mitigate significant risks to human health or the environment, as outlined in Article 6(3), second subparagraph, of the ESPR. This is particularly critical for smallholder farmers and workers, who are often directly exposed to hazardous substances in their daily activities. By addressing performance requirements, we can better protect these vulnerable groups from harmful substances, ensuring their health and safety while promoting more sustainable practices.
588	9.1.3; 2766-2771	While we welcome that the presence of substances of concern will be addressed separately, we are concerned by how this paragraph is phrased. It seems that the JRC has already decided that substances of concern will only be addressed by setting information requirements and not performance requirements. This decision is premature and does not belong in Task 4. We remind the JRC that the definition of “ substance of concern” is not just limited to substances that hamper recycling and that setting of performance requirements shall also, where appropriate, reduce significant risks to human health or the environment, as foreseen in Article 6(3), second subparagraph, of the ESPR.
589	9.1.3; 2773	Take a holistic approach to it all, comfort and durability go hand in hand. The end consumer will not buy a garment that does not feel good on the skin (e.g. can breathe).
590	9.1.3; 2773	To fully address durability and the impacts of the ultra-fast fashion, all aspects of durability need to be considered – physical and emotional as well as how sustainably garments are produced. Furthermore, to ensure a well-rounded approach, it is important to incorporate relevant quality and comfort considerations into durability requirements. Setting the highest possible durability thresholds may compromise comfort, and potentially health, due to the addition of chemicals to make the material more robust. For example, natural fibers such as cotton and wool are renowned for their comfort but may not offer the same level of durability as synthetic fibers, such as polyester and nylon, which are engineered for strength (ECOS (2022) “Deep dive: Standards to measure textile durability”).

ID	Section & line	Comment
		Focusing solely on physical durability, for the only reason that standardized methods exist, is not enough. Established standards and thresholds do not guarantee that a garment will not be discarded: evidence shows that in 28% of the cases, clothes are disposed because of poor fit, due to i.a. unsuitable grading or wrong size, and in 35% for perceived value (the garment is outdated, or out of fashion, etc.), instead of the actual robustness of the garment (Kirsi Laitala & Ingun Grimstad Klepp (2022), "Review of clothing disposal reasons", Clothing research)
591	9.1.3 (page 103); 2773	Durability must be defined holistically, encompassing all primary factors that lead users to discard textiles, and it should be grounded in a scientifically robust approach. Focusing solely on physical durability, merely because standardized methods exist, presents an incomplete perspective. Established standards and thresholds do not guarantee that a garment will not be discarded; an item may exhibit excellent physical durability, yet factors such as discomfort could ultimately drive the user to dispose of it. A comprehensive approach to durability is therefore essential to ensure meaningful and effective sustainability outcomes.
2315	10.9.1.1; 7033-7094	Please provide the source for arguing that durability is directly related to product lifespan. Literature shows that many factors determine why consumers discard textile apparel. Durability and lifetime cannot be used interchangeably, as it seems to be used in the text, especially in the context of the environmental considerations. We agree that the lifetime of some products is unduly shortened and we should prevent that from happening. However, while we know consumers discard some products because of their physical failures, addressing this problem may contribute to, but not necessarily will, prolonging the life of products. Products could be fit for being used for longer, but we do not know with certainty whether they will actually be kept in active use for longer. On the other hand, we generally agree with the socioeconomic assessment. Yet it is important to underline that the business model of fast fashion may induce consumers to regularly buy new products – through marketing and rapidly changing collections –, regardless of whether they are durable or not. Consumers do not buy new products only to replace broken ones. Thus, while it is true that fast fashion companies may be indirectly penalised since their business model is based on reducing production costs and on low margins, the PS should not overestimate the effects that durability requirements may have on the fast fashion business model. Under reusability, it is noted that the latter does not change overconsumption and overproduction patterns (lines 7191 and 7192). We believe this to be true also for physical durability. The concept of durability is too narrow and focuses only on the physical failures of products. Table 98 recognises that good fit increases person-product attachment and generally literature shows that poor fit is one of the three main reasons for apparel to be discarded by consumers. Durability requirements should therefore also include features that allow consumers to adjust the products' fit more easily: wider hem allowance, extra lining in jackets, etc. These features would allow products to maintain over time their function and performance.
2316	10.9.1.1; 7033-7094	Please provide the source for arguing that durability is directly related to product lifespan. Literature shows that many factors determine why consumers discard textile apparel. Durability and lifetime cannot be used interchangeably, as it seems to be used in the text, especially in the context of the environmental considerations. We agree that the lifetime of some products is unduly shortened and we should prevent that from happening. However, while we know consumers discard some products because of their physical failures, addressing this problem may contribute to, but not necessarily will, prolonging the life of products. Products could be fit for being used for longer, but we do not know with certainty whether they will actually be kept in active use for longer. On the other hand, we generally agree with the socioeconomic assessment. Yet it is important to underline that the business model of fast fashion may induce consumers to regularly buy new products – through marketing and rapidly changing collections –, regardless of whether they are durable or not. Consumers do not buy new products only to replace broken ones. Thus, while it is true that fast fashion companies may be indirectly penalised since their business model is based on reducing production costs and on low margins, the PS should not overestimate the effects that durability requirements may have on the fast fashion business model. Under reusability, it is noted that the latter does not change overconsumption and overproduction patterns (lines 7191 and 7192). We believe this to be true also for physical durability. The concept of durability is too narrow and focuses only on the physical failures of products. Table 98 recognises that good fit increases person-product attachment and generally literature shows that poor fit is one of the three main reasons for apparel to be discarded by consumers. Durability requirements should therefore also include features that allow consumers to adjust the products' fit more easily: wider hem allowance, extra lining in jackets, etc. These features would allow products to maintain over time their function and performance.

ID	Section & line	Comment
2317	10.9.1.1; 7033-7094	Durability and lifetime cannot be used interchangeably, as it seems to be used in the text, especially in the context of the environmental considerations. Literature shows that many factors determine why consumers discard textile apparel. We agree that the lifetime of some products is unduly shortened and we should prevent that from happening. However, while we know consumers discard some products because of their physical failures, addressing this problem may contribute to, but not necessarily will, prolonging the life of products. Products could be fit for being used for longer, but we do not know with certainty whether they will actually be kept in active use for longer. On the other hand, we generally agree with the socioeconomic assessment. Yet it is important to underline that the business model of fast fashion may induce consumers to regularly buy new products – through marketing and rapidly changing collections –, regardless of whether they are durable or not. Consumers do not buy new products only to replace broken ones. Thus, while it is true that fast fashion companies may be indirectly penalised since their business model is based on reducing production costs and on low margins, the PS should be more cautious in relation to the effects that durability requirements may have on the fast fashion business model. Under reusability, it is noted that the latter does not change overconsumption and overproduction patterns (lines 7191 and 7192). We believe this to be true also for physical durability.
2318	10.9.1.1; 7033-7094	The concept of durability is too narrow and focuses only on the physical failures of products. Table 98 recognises that good fit increases person-product attachment and generally literature shows that poor fit is one of the three main reasons for apparel to be discarded by consumers. Durability requirements should therefore also include features that allow consumers to adjust the products' fit more easily: wider hem allowance, extra lining in jackets, etc. These features would allow products to maintain over time their function and performance.
2319	10.9.1.1; 7052	There is a need to add microplastic emissions to the environmental impacts which decrease when extending product lifespan.
2320	10.9.1.1; 7052	There is a need to add microplastic emissions to the environmental impacts which decrease when extending products life, with a reference to consumer studies relevant to this.
2321	10.9.1.1; 7052	There is a need to add microplastic emissions to the environmental impacts which decrease when extending product lifespan.
2323	10.9.1.2; 7095-7138	We believe that the interpretation of reliability is too narrow and is missing any consideration on technical textile apparel. In Section 2, technical textiles are defined as textile products meeting technical rather than aesthetic criteria and is acknowledged that sportswear and workwear may be considered technical textiles in certain instances. As an example, consumers may buy sports apparel believing the latter will have certain functionalities. However, if the consumer realises after the purchase that the apparel product does not have the functionality with which it was marketed, then the consumer will potentially discard it. In this case, the sports apparel was not reliable because the primary or secondary function of the product was no longer performed. Hence, under the reliability product aspect, the PS should also consider the specific additional functions that technical textile apparel are marketed with. For instance, a waterproof jacket should be tested using EN ISO 6330 and EN ISO 811. This aspect is missing from the reliability considerations in the PS.
2324	10.9.1.2; 7095-7138	We believe that the interpretation of reliability is too narrow and is missing any consideration on technical textile apparel. In Section 2, technical textiles are defined as textile products meeting technical rather than aesthetic criteria and is acknowledged that sportswear and workwear may be considered technical textiles in certain instances. As an example, consumers may buy sports apparel believing the latter will have certain functionalities. However, if the consumer realises after the purchase that the apparel product does not have the functionality with which it was marketed, then the consumer will potentially discard it. In this case, the sports apparel was not reliable because the primary or secondary function of the product was no longer performed. Hence, under the reliability product aspect, the PS should also consider the specific additional functions that technical textile apparel are marketed with. This aspect is missing from the reliability considerations in the PS. For example, the current Ecolabel criteria include testing for durability of function, as reported in Table 109.
2325	10.9.1.3; 7139-7192	The concept of reusability is too narrow and does not consider additional features that could be foreseen to incentivise a subsequent use of the same product beyond physical durability attributes. For instance, wider hem allowance, extra lining in jackets, etc., could allow subsequent users to adjust the fit of the apparel product, thus potentially contributing to the extension of the product's lifetime. As also recognised in Table 98, good fit increases person-product attachment. On the other hand, we are glad to see that the PS recognises that reusability does not change overproduction and overconsumption patterns). Furthermore, in the context of the discussions around the exceptions to the ban on the destruction of unsold clothing and footwear, products may be unsuitable for preparing for re-use or remanufacturing due to technical unfeasibility to remove labels, logos and recognizable product design characteristics necessary to ensure compliance with intellectual property rights. Ecodesign requirements on reusability should address these shortcomings and ensure that perfectly fine products are destroyed.
2326	10.9.1.3; 7139-7192	The concept of reusability is too narrow and does not consider additional features that could be foreseen to incentivise a subsequent use of the same product beyond physical durability attributes. For instance, wider hem allowance, extra lining in jackets, etc., could allow subsequent users to adjust the fit of the apparel

ID	Section & line	Comment
		product, thus potentially contributing to the extension of the product's lifetime. As also recognised in Table 98, good fit increases person-product attachment. On the other hand, we are glad to see that the PS recognises that reusability does not change overproduction and overconsumption patterns). Furthermore, in the context of the discussions around the exceptions to the ban on the destruction of unsold clothing and footwear, products may be unsuitable for preparing for re-use or remanufacturing due to technical unfeasibility to remove labels, logos and recognizable product design characteristics necessary to ensure compliance with intellectual property rights. Ecodesign requirements on reusability should address these shortcomings and ensure that perfectly fine products are not destroyed.
2327	10.9.1.6; 7285	Maintenance activities do not start with the use phase but with the storage, loading, transport and distribution of finished garments. Contribution to impacts from maintenance are therefore not only resulting from consumers but include many more actors of the supply chain.
2328	10.9.1.6; 7297	Maintenance activities do not start with the use phase but with the storage, loading, transport and distribution of finished garments. Contribution to impacts from maintenance are therefore not only resulting from consumers but include many more actors of the supply chain.
2329	10.9.1.6; 7297	Maintenance activities do not start with the use phase but with the storage, loading, transport and distribution of finished garments. Contribution to impacts from maintenance are therefore not only resulting from consumers but include many more actors of the supply chain.
2330	10.9.1.8; 7387	There is a need to complete that list of additives: "pesticides, solvents, surfactants, dyes, pigments, stain repellents, flame retardants or biocides, among others"
2331	10.9.1.9; 7400	Need to add retailers to consumers and distribution to use phase!
2332	10.9.1.9 Energy use and energy efficiency; 7419 - 7477	The sub-section on energy use and energy efficiency should explicitly address raw material extraction and cultivation. The textile industry significantly contributes to rising greenhouse gas (GHG) emissions, driven by factors such as the intensive use of fertilizers and pesticides in natural fibre production, land-use changes for agricultural expansion, material production and finishing, and heavy reliance on fossil fuels for both synthetic and natural fibre production (1). Organic cotton production presents distinct advantages, particularly through reduced tillage operations and the elimination of chemical fertilizers and pesticides, leading to lower energy consumption and emissions. We strongly encourage the JRC to explore these factors in greater depth in the environmental and economic model (Task 5) to provide a more complete analysis of the textile industry's energy use and efficiency. References: (1) Circle Economy (2024) Circularity Gap Report: Closing the Circularity Gap in the textile industry. https://cgr-reports.s3.eu-west-1.amazonaws.com/cgr-textiles-3a1e7a73/Circularity+Gap+Report+Textiles+-+20241129.pdf
2333	10.9.1.9; 7436-7438	Please note that silver and silver, as a nanomaterial, are no longer supported (ie not allowed) as biocidal active substances for PT 09 (PT09 - Fibre, leather, rubber and polymerised materials preservatives) under BPR (EU Regulation No 528/2012), following EU Decisions 2018/1622 and 2021/1283. We thus find it highly questionable thar the report refers to "odour reduction thanks to fabrics enabled with silver" and would suggest that the sentence is removed from the preliminary study.
2334	10.9.1; 7449-7452	The JRC notes that " In the case of denim apparel, the industry is transitioning from stonewashed denim to more energy-efficient methods such as enzyme treatment, mechanical abrasion, ozone fading, water jet fading and laser treatment (Elmogahzy, 2020). From a number of aspects enzymatic stonewashing is more energy efficient compared to traditional stonewashing. The process of enzymatic stonewashing is shorter, runs at a lower temperature and without stones (increasing the amount of denim that can be processed in one machine). Furthermore it saves on mining activities and the machine wear is lower reducing the overall energy requirements (LCA required to verify the claims). An enzymatic stonewashing process has been available for decades so we wonder about the ratio of traditional stonewashing versus enzymatic stonewashing to better understand the improvement still possible.

ID	Section & line	Comment
2337	Resource use and resource efficiency; 7527	2. The document appears to be based on the assumption that natural fibres are more problematic than fossil origin fibres It is worrying that the working document appears to consider natural fibres to be more problematic than synthetic fibres from fossil origins. Concerning resource use efficiency (lines 7556 ff.), the working document seems to omit fossil-based fibres entirely, and only natural origin fibres and man-made cellulosic fibres are cited amongst the primary use of materials. This appears to be in stark contrast to line 1281, where it says that 70 % of fibres have a chemical origin, while 30 % have a natural origin (assuming the latter would include man-made cellulosic fibres). At a point in time where the EU is planning on a Bioeconomy Strategy, intending to tap the significant growth potential of bio-based materials and to substitute fossil-based materials, it is surprising to see a clear bias towards synthetic fibres in the working document on textile ESP. This is further reflected in its reliance on the PEF methodology and the choice of system boundaries for LCAs. Previous studies have clearly stated the benefits and advantages of natural fibres: The "Platform on Sustainable Finance" has done extensive work on textiles, footwear, and fibre production, and has assessed many of the topics that are currently addressed by the working document (substances of concern, recycled materials, repair and refurbishing…). The study clearly suggests that fibres either come from recycled materials or from renewable (and not: fossil) feedstocks, while giving the following background information: "Currently, materials in the fashion industry come from two sources. About 60% come from finite resources such as oil and other fossil fuels — these are used to make plastic-based (synthetic) fibres including polyester, nylon, acrylic, and elastane. The remainder come from renewable resources — these include cellulose-based fibres (for example cotton, hemp, flaxseed, viscose, and lyocell) and protein-based fibres (for example wool and silk). Due to conventional farming methods that use large amounts of synthetic fertilisers and pesticides, renewable and finite resource use are often intrinsically linked.". The study, as a consequence, recommends that natural fibres come from certified organic farming. (Annex to the platform on Sustainable Finance's report with recommendations on technical screening criteria for the four remaining environmental objectives of the EU taxonomy; https://finance.ec.europa.eu/system/files/2022-03/220330-sustainable-finance-platform-finance-report-remaining-environmental-objectives-taxonomy-annex_en.pdf). The working document should address the need for sustainably sourced natural fibres more prominently, especially given the current technical limitations to recyclability and more circular models in the textile sector, making sustainable natural fibres the logical alternative. In the definitions (lines 149 ff.), the definition of textile fibres should differentiate between synthetic and natural fibres. The different feedstock sources are not accurately accounted for, while being highly relevant for all the later chapters of the study. It is not adequate to only differentiate in the chapter on lifecycle stages. In this context, the item "10.4.2 Voluntary environmental labels used in the EU" (lines 5857 ff.) is relevant. We would like to reiterate that a better analysis of the scope of the labels, indicating whether they look at fibre production, or at the processing stages of textiles, or textile trade, would add clarity in the working document. It does not seem logical to compare a label which looks at fibre production to one looking at trade in textiles. It is important, however, to recognize that the labels/standards may be interlinked. The Global Organic Textile Standard (GOTS), for example, while covering textile processing and trade, also demands that fibres come from certified organic farming (although the farming/fibre production stage itself is not covered by the GOTS standard). To appropriately cover sustainable fibre production, it is recommended to include all organic farming standards as recognized by the IFOAM family of standards (IFOAM Family of Standards | IFOAM; https://www.ifoam.bio/our-work/how/standards-certification/organic-guarantee-system/ifoam-family-standards). These cover the EU Organic Regulation (EU) 2018/848, the USDA NOP, and many others, certifying organic fibre production around the world. Organic textiles - IFOAM Organics Europe lists information on organic fibre production and the related sustainability advantages.
2338	10.9.1.11 Resource use and resource efficiency; 7537	'use or content of sustainable renewable materials' is indeed a parameter that should be reported as part of information requirements under ESPR.

ID	Section & line	Comment
2339	10.9.1.11 Resource use and resource efficiency; 7537	While the distinction between organic and conventional cotton farming is mentioned in line 7540, the JRC report should explicitly state that organic cotton production results in lower resource use and higher resource efficiency. As defined in Table 41- Product aspects and required characteristics of products (line 2732): “an item of textile apparel with low resource use or high resource efficiency should, among other things, use materials that throughout its life cycle stages consume raw materials produced in sustainable way, indirectly use land assuring its future use with the same activity, and use ecosystems without damaging their biodiversity and general balance.” Organic farming aligns with these principles by promoting biodiversity, maintaining soil health, supporting ecosystems, and reducing pollution. (1)(2)(3)(4)(5) Furthermore, resource use and efficiency are closely related with the “use of content of sustainable renewable materials”, as acknowledged in Annex I ESPR. The European Environmental Agency defines a ‘renewable raw material’ as a resource that has a natural rate of availability and yield a continual flow of services which may be consumed in any time period without endangering future consumption possibilities as long as current use does not exceed net renewal during the period under consideration.” Organic cotton meets these criteria. We believe it is essential for JRC to consistently distinguish between conventional and organic cotton in future documents and milestones and to refer to “organic cotton” as a ‘sustainable renewable material’. References: (1) Thinkstep (2018). Life Cycle Assessment of Cotton Cultivation Systems - Better Cotton, Conventional Cotton and Organic Cotton. Study commissioned by C&A Foundation (2) Fairtrade International. (2024). Evaluating environmental impact of fairtrade certificed cotton in India. https://www.fairtrade.net/en/get-involved/library/evaluating-the-environmental-impact-of-fairtrade-certified-cotto.html (3) Altenbuchner, C., Vogel, S., & Larcher, M. (2020). Community transformation through certified organic cotton initiatives—an analysis of case studies in Peru, Tanzania and India. Renewable Agriculture and Food Systems, 1–16. doi:10.1017/s1742170519000462 (4) IFOAM Organics Europe (2022), Organic agriculture and its benefits for climate and biodiversity, https://bit.ly/3U25Xve (5) Nic Lampkin and Bruce Pearce (2020), Organic farming and biodiversity, IFOAM Organics Europe, https://bit.ly/3gsPtyL
2340	10.9.1.11; 7537	We agree with the fact that the product aspect “resource use” is closely related with product parameters such as the “use of content of sustainable renewable materials”, as per Annex I ESPR. We agree with the mention in line 7540 of organic and regenerative cotton farming as different from conventional cotton farming. In addition, the JRC report should explicitly state that organic cotton and regenerative cotton not just use “different” resources, but that they use “less” resources. For instance, organic cotton generally uses less resources and has higher resource efficiency. It is essential to include "organic cotton” and other agro-ecologically grown natural fibres as a ‘sustainable renewable material’. The European Environmental Agency (https://www.eea.europa.eu/help/glossary/gemet-environmental-thesaurus/renewable-raw-material) defines a ‘renewable raw material’ as a resource that has a natural rate of availability and yield a continual flow of services which may be consumed in any time period without endangering future consumption

ID	Section & line	Comment
		possibilities as long as current use does not exceed net renewal during the period under consideration." Under this definition, "organic cotton" would for instance be included.
2341	10.9.1.11; 7539-7546	Global forest certificates (PEFC and FSC) provide good means for ensuring the sustainable origin of the wood. Additionally, their chain-of-custody enables tracking forest-based products from sustainable sources to the final product. In addition, based on LCA studies, the efficiency and the best location for the raw-material production can be analysed.
2342	10.9.1.11; 7539-7546	Global forest certificates (PEFC and FSC) provide good means for ensuring the sustainable origin of the wood. Additionally, their chain of custody enables tracking forest-based products from sustainable sources to the final product. In addition, based on LCA studies, the efficiency and the best location for the raw-material production can be analysed. Similarly polyester can be made partially or fully of wood-based raw material.
2343	10.9.1.12; 7584-7585	This is misleading. Increasing the recycled content in textile apparel would already be possible up to a certain threshold with mechanical recycling technologies. This reads as if it needs chemical recycling technologies for that. We suggest moving the first sentence to the paragraph above (to line 7583) and adding a "thus" after "there is [thus] room for improvement". The new paragraph would start with "chemical recycling works by breaking down", without the "for instance". The definition of chemical recycling given in line 7585-7586 is unprecise. Chemical recycling does not have to be a dissolution process and not always are cellulose fibres suitable.
2344	10.9.1.14; 7639-7669	We strongly call on the JRC to, in addition to microplastics, also include micro-fibre shedding. – The Microfiber Consortium (TMC) has shown that natural fibers have a higher fibre shedding and that these fibre fragments also create a risk for the environment due to the chemical treatment of these natural fibre fabrics. The consecutive analysis of the JRC in the upcoming task must assess fibre fragmentation as a whole and must address all fibre types (natural, synthetic, and man-made cellulosic) equally. Current test methods for measuring fibre fragmentation have not been designed to assess fibre fragmentation in finished products and are hence inappropriate for regulatory purposes at consumer level without further development and research. We strongly call on the JRC to connect with TMC for any of the consecutive analysis done, to get access to the latest scientific research on fiber fragmentation.
2348	10.9.1.14; 7640-7646	Enzymatic recycling on e.g. polyester is already commercially available. However, we agree that fibre to fibre recycling remains complex. AMFEP belives that it will be possible to use chemical and enzymatic processes in textile recycling for the separation of the different materials used in blended fabrics. A major reason for the lack of progress in chemical and enzymatic processes in textile recycling is the increased cost of production. Next to required investments for automatic sorting of collected textile products that is crucial to effectively identifying fibre type and determining the appropriate recycling method, the process of separating fibres will be costly. Regulation around the promotion of the use of recycling for textiles made from one material (e.g. polyester or cotton) will make recycling easier and cheaper
2349	10.9.1.14; 7643-7645	Automated sorting is not the status quo in the industry, sorting is a very labour intensive process, and it will continue to be so across the world. It is an industry that is able to generate a lot of employment. It also requires huge amounts of investments, which sorters do not always have the ability to invest in. Therefore, manual sorting will always need to be a part of the sorting process in both post-consumer and post-industrial.
2351	10.9.1.14; 7658-7660	This contradicts line 7581: "For instance, a maximum of 20% post-consumer mechanically recovered cotton fibres can be blended with virgin cotton before strength is compromised (Niinimäki et al., 2020)."
2352	10.9.1.14; 7693-7695	This sentence suggests that it is mainly fibre blends thakt make the recycling process challenging. However, the diversity in prints and disruptors is also a reason and should be mentioned. Furthermore, in order to facilitate mechanical recycling it doesn't have to be thermoplastic materials only that can be used, as the second sentence suggests. Mono-material from cotton or wool would also be good. The sentence should be thus modified.
2356	10.9.1.5; 7740	We find it important to also include farmers – specifically smallholder farmers – alongside "workers and the communities around manufacturing plants" in the subsection on socioeconomic aspects. Including them would give a more complete view of the supply chain, especially as cotton producers are overwhelmingly (more than 90%) smallholder farmers, farming on less than two hectares of land. Approximately 250 million smallholder farmers worldwide are dependent on cotton for their livelihood and income.
2357	10.9.1.15; 7740	We find it important to also include farmers – specifically smallholder farmers – alongside "workers and the communities around manufacturing plants" in the subsection on socioeconomic aspects. Including them would give a more complete view of the supply chain, especially as cotton producers are overwhelmingly (more than 90%) smallholder farmers, farming on less than two hectares of land. Approximately 250 million smallholder farmers worldwide are dependent on cotton for their livelihood and income.
2358	10.9.1.15 Environmental	We believe that "farmers" should be explicitly mentioned alongside "workers and the communities working around the manufacturing plants" in the subsection addressing socioeconomic aspects.

ID	Section & line	Comment
	impacts; 7743 - 7744	Farmers and farming communities in third countries are directly impacted by textile production long before the manufacturing stages. The cultivation and extraction of raw materials, as well as their processing, carry significant socioeconomic implications, such as human and eco-toxicity impacts linked to the use of synthetic pesticides and fertilizers. To ensure a comprehensive assessment, we urge the JRC to examine these impacts in greater depth within the environmental and economic model (Task 5) and to explicitly reference the environmental and human toxicity effects of textile production in third countries.
2359	10.9.1.15; 7744	We find it important to also include farmers – specifically smallholder farmers – alongside "workers and the communities around manufacturing plants" in the subsection on socioeconomic aspects.
2360	10.9.1.16; 7754	As overproduction is the main driver of waste generation, the criteria for expected waste generation must include business practices. Clear criteria should be defined to account for the quality and quantity of products placed on the market. Such criteria could encompass: - the width of the product range [understood as the number of product references offered for sale by a producer, with defined thresholds per market segment], - the frequency of offers, [understood as the number of references per market segment offered for sale by a producer in a given period]. The introduction of such requirements would also ensure consistency with the ecomodulation rules under the recent political agreement on the Waste Framework Directive.

Annex 12. Comments on product aspects in general

Table 35. Comments on product aspects in general

ID	Section & line	Comment
592	Analysis of technologies;2782	Eco-design requirements should be introduced stepwise, gradually raising the environmental standards, allowing for the necessary scaling and economic feasibility for all market operators.
593	9.2;2782	General feedback • Lack of acknowledgement to industry own initiatives and thus current reality: Except for AFIRM/ZDHC, we see a lack of reference to industry own initiatives. We would strongly encourage the JRC to consider the efforts the industry have done e.g. (e.g. Textile Exchange standards), The Microfiber Consortium (TMC), the Apparel & Footwear Quality Association (AFQA). • Define apparel, clothing and garment appropriately. While the report focuses on apparel, it predominantly references "fashion", suggesting other segments of apparel do not share the same foundational assumptions. For the purpose of objectivity, we recommend applying the same definition as HS codes for classifying products and refrain from equating apparel and fashion. • Take into account trade-offs among performance requirements and adopt a stepwise approach. Evaluating product aspects in isolation fails to account for trade-offs; we therefore strongly underline the need for a thorough assessment of those in the following tasks.. Furthermore, we would like to stress the importance of a stepwise approach when developing mandatory ecodesign requirements that will raise the minimum ecodesign standards for all products

ID	Section & line	Comment
		sold on the EU market. It is imperative that these requirements are scalable and affordable for all economic actors. • Business models: The goal of the ESPR is to regulate products, not business models. The report should be based on scientific criteria rather than qualitative opinions and speculations about the influence of business models on product design and environmental impacts. • Durability: o Durability performance requirements should be based on the most common causes of apparel failure. o The approach taken largely deviates from what industry has been working on for the last years, considering the sectorial work and broad consensus surrounding the methodology. Re-evaluating all parameters post-aging is unnecessary and misaligned with industry standards. Excessive parameters and aging procedures are not cost-effective. o In the product description made for physical durability, referencing as pilling grades amongst others, exceed market practices and do not account for fibre properties and recycled content. Based on the proposed methodology, it would be difficult to set both the basic and more intermediate/advanced levels in a clear manner. o Certain testing methods and conditions are incorrect and do not align with international laboratory and industry practices. o Emotional durability falls outside the scope of ESPR, and we therefore underline our support to focus on physical durability only as requirements need to be based on objective and measurable requirements. This aligns with previous PEF decisions, which rejected emotional durability twice. • Recycled content o Recycled content definition should include post-industrial and pre-consumer textile waste; otherwise, it disregards sector realities and hinders the scaling of recycled content in the textile industry. Post-industrial waste is a critical enabler for scaling up the textile waste recycling process in the near future. Furthermore, we do not support the definition of recycled contents covering only textile-to-textile recycling. While agreeing that efforts on textile-to-textile recycling shall be prioritized, we stress that PET bottle-to-fibre should remain an accepted option in the transition phase and progressively exchanged with textile-to-textile as these technologies scale up. o Unsold products are not waste until they are discarded. o The high complexity of apparel products creates technical limitations, acting as a barrier to establishing recycled content requirements at product level. To overcome this challenge, [...] strongly recommends that the future delegated act establish mandatory recycled content requirements at portfolio/company level.
601	9.2;2789	The analysis of process techniques excessively simplifies the description of production processes that enhance technical and qualitative diversity. The report should more accurately detail how different processes can contribute to overall sustainability based on industry best practices supported by data.
604	9.2;2791	ESPR to regulate product, not business models. The report has not extensively analysed or measured the connection between business models and the impact of a single product. We recall that the goal of the ESPR is to regulate products, not business models. Additionally, the preliminary study should be based on scientific criteria rather than qualitative

ID	Section & line	Comment
		opinions and speculations about potential relationships and impacts. Unless supported by an impact-based report on this topic, any comments regarding the influence of business models should be considered as not data-driven and therefore omitted from consideration.
607	9.2;2792	In the context of ecodesign requirements, user behaviour cannot be controlled or predicted by designers and manufacturers. Therefore, to ensure legal certainty, ecodesign legal requirements should be founded on evidence-based, measurable aspects related to controllable product factors during design and manufacturing. Uncontrollable and speculative aspects, such as consumer behaviour, should be excluded from the scope of the report.
1013	9.2.2 and 9.2.3;3012 to 3240	On Labeling, Maintenance (9.2.2), and Repairability (9.2.3): • Information on garment maintenance should be regulated under the corresponding legislation currently under review (TLR) and labeling should be aligned with the main markets of European brands. We recommend focusing on care instructions for the most delicate part of the garment to avoid excessive complexity. This information can be supplemented via digital tools like DDP, avoiding duplicated obligations. • Recommendations regarding repairability should focus on garment-inherent aspects -acknowledging the difficulties involved- that are within the control of producers. Once again, the balance between efforts and expected impacts must be maintained, without overlapping legal obligations from the Directives on Consumer Empowerment and Goods Repair. The application of the latter Directive to clothing is largely indefensible, as it would impose disproportionate burdens on producers compared to the actual demand for such services. • Regarding garment-specific challenges, we would confirm the report's findings that modular designs may compromise user comfort, physical durability and creativity, that standardizing components must also be balanced with the inherent fashion creativity and/or players customization, and that the availability of spare parts should be limited due to its low demand *. (*) These statements may be subject to debate for non-fashion-related clothing, such as labor, sportswear, or other categories. → for further discussions
1262	9.2.4 and 9.2.5;3241-3700	On Waste (9.2.4), Recyclability, and Recycled Content (9.2.5): Waste: • The study should align definitions with existing directives, regulations, prior reports, and ISO international standards to avoid confusion regarding waste, post-industrial waste, and pre-consumer waste. Recyclability: • The first four recyclability requirements -linked to specific existing infrastructures rather than to the product itself- pertain to the ecosystem necessary for garment recovery, sorting, pre-treatment, and waste recycling, which is the focus of other legislative initiatives. • The fifth requirement needs further elaboration (e.g., substances, components, or other factors that could hinder recyclability and their threshold levels). Recycled Fiber Sources:

ID	Section & line	Comment
		• It should be inaccurate to claim that considering post-industrial or pre-consumer recycled fibers for ecodesign criteria of garments would lead to increased industry waste due to production inefficiencies or the intentional acquisition of collections by brands for purposes other than consumer sale. • Fabric is frequently the most expensive factor-driver of a garment. Additionally, "pre-consumer" waste should refer to unsold garments put on the market by the brands, not those retained by the manufacturer for other reasons (which should be classified as post-industrial waste). Generally, European brands strive to minimize inventories for economic and financial efficiency. On Technological Development: • The report forecasts some technological developments that still face significant challenges in their research, technological advancement, and industrial scaling. It is crucial that the PS recommends that the European Commission provide funding, harmonization, and public-private collaboration to establish a unique textile waste market through the development of clean technologies, economies of scale, and experience curves allowing an efficient European secondary raw materials market. Technological Transition since ecodesign implementation: • There are post-consumer recycled fibers not in quantity nor in quality available for the ecodesign criteria of future garments (and their influence over durability must be also considered). Recycling technologies for these future garments following ecodesign criteria will take time to reach economies of scale, probably requiring long learning curves. The report should consider present scenarios when projecting innovations for reintroducing recycled fibers, maybe considering their incorporation into different products.
1958	9.2.6 and 9.2.7;3701 to 4123	On Environmental Impact (9.2.6) and Hazardous Substances (9.2.7): • A methodology for assessing a garment's environmental impact must be defined, considering both fixed impacts (materials, production processes, distribution, and end-of-life) and variable impacts (washing, ironing, etc.), to allow for comparisons. • The PS report should emphasize strengthening market surveillance authorities at borders, points of sale, and digital platforms, particularly regarding garment imports under €150 via package shipping from third countries.

Annex 13. Comments on physical durability

Table 36. Comments on physical durability

ID	Section & line	Comment
609	9.2.1; 2802-3011	Concern: Favoring plastics by overweighting the importance of physical durability testing

ID	Section & line	Comment
		Context: PEF assigns disproportionate weight to physical durability tests, reinforcing a flawed assumption that tensile strength is the primary determinant of a garment's lifespan. While synthetic fibers excel in physical strength tests due to their high tensile properties, these properties do not correlate with actual consumer retention. Consumers do not retain or discard clothing based purely on physical durability—factors such as comfort, breathability, fit, aesthetic appeal, and fashion trends play a far greater role. Research indicates that only one-third of garments are discarded due to actual wear and tear, while two-thirds of clothing disposal is unrelated to durability (Oslomet, 2022). By prioritizing intrinsic durability (measured by tensile strength, abrasion resistance, and tear resistance) while neglecting extrinsic factors such as comfort, functionality, and real-world wear patterns, PEF may be inadvertently reinforcing synthetic dominance in sustainability scoring. This is particularly problematic, as synthetic fibers have enabled fast fashion, a model that encourages rapid turnover and shorter garment lifetimes. Research by Niinimäki (2020) underscores how fast fashion thrives on inexpensive synthetic fibers, promoting mass production and excessive waste, contrary to the EU's policy goal of making fashion more sustainable. Furthermore, PEF lacks a validated, evidence-based method for weighting and aggregating different durability attributes into a single sustainability score. The absence of consumer behavior data means that PEF's current methodology risks producing misleading conclusions about product longevity, thereby failing to deliver an accurate assessment of environmental impact. A better alternate: The assumption that superior tensile strength leads to extended garment use must be revisited, and PEF's durability assessment must be expanded beyond physical resilience alone. Instead of relying solely on durability tests, real-life garment longevity data should be integrated into the framework, using Digital Product Passport (DPP)-derived data from waste collection facilities. This would allow sustainability assessments to be based on actual consumer usage and disposal behavior, rather than speculative durability estimations. Moreover, textile longevity should not be measured in isolation from functionality and comfort. Attributes such as breathability, moisture management, air permeability, and thermal comfort significantly influence wear frequency and long-term retention. PEF must account for these critical performance characteristics, as textiles with superior comfort properties are more likely to be worn frequently and kept longer, thereby reducing overall environmental impact. A more holistic approach to garment longevity would ensure that synthetic fiber advantages in tensile strength do not automatically translate into unjustified sustainability benefits, while natural fibers' intrinsic advantages—such as comfort, functionality, and biodegradability—are adequately represented in the assessment framework. Until these corrections are made, PEF remains an incomplete and biased tool that fails to reflect real-world textile sustainability.
611	9.2.1; 2802 to 3011	On Durability (9.2.1): On Key Parameters: Table 43 Table 43 does not specify whether the most common failures listed for textile garments apply to all product categories or whether distinctions exist among them. As a result, the selection of key parameters in Table 44 lacks this preliminary distinction. Eco-design criteria should maximize potential impact while ensuring a flexible, feasible, and scalable framework at the lowest possible cost for businesses and without imposing unmanageable burdens on market surveillance authorities.

ID	Section & line	Comment
		On Testing, Simulations, and Recommendations: Table 44 Requirements: • Each product category's composition, fabric weight, and structure (knitted or woven) must be considered, as they are essential for defining testing parameters, methodologies, and thresholds. These, in turn, should align with the most recognized international industry standards as could be ISO standards. • Thresholds should be attainable for all fiber types but for some of them it should be convenient to establish lower thresholds (for instance, natural fibers like wool or regenerated cellulosic fibers like viscose will never match the intrinsic properties of synthetic fibers). Failing to account for this could unconsciously discriminate against certain fiber types. At the same time, these thresholds must be aligned with international practices. The use of recycled fibers -especially through mechanical recycling technologies from post-consumer sources- should also be carefully considered. Cleaning Cycles: • Aging tests must incorporate drying and ironing processes after washing to replicate real-life scenarios. • The need to reanalyse all parameters after the aging process is a critical point affecting the applicability and affordability of the proposal. Current ISO international standards specify comprehensive evaluations of key garment parameters after cleaning cycles. Execution Time: • The proposed cleaning cycles (over 20-30) do not align with the PEFCR developed in collaboration with the Industry * (5-15), given that most garment properties stabilize after the first few washing cycles. More information about the proposal will be needed. • Extending cleaning cycles significantly to determine garment durability would result in very long testing times, particularly when drying and ironing should be included to simulate real-life scenarios. This could extend the lead times beyond reasonable limits. • Although Europe's clothing consumption accounts just for around 20% of global consumption (in units), requiring such extensive testing for garments sold in the EU could create bottlenecks in current testing infrastructures. (*) This statement may be subject to debate for non-fashion-related clothing, such as labor, sportswear, or other categories. → for further discussion Economic Impact:

ID	Section & line	Comment
		• The high costs of these tests per model and even per color, when extrapolated to all fashion garments entering the European market, might significantly impact brands, retailers, producers -particularly SME competitiveness - and consumers. Comparable Results: • The methodology used to define performance after testing (based on percentage changes from original properties) does not necessarily assess garment durability. A garment that exhibits a lower percentage decrease from its original properties but performs poorly could be considered more "durable" than another garment with a higher percentage decrease but better performance.
612	9.2.1; 2802 to 3011	On Durability (9.2.1): On Key Parameters: Table 43 Table 43 does not specify whether the most common failures listed for textile garments apply to all product categories or whether distinctions exist among them. As a result, the selection of key parameters in Table 44 lacks this preliminary distinction. Eco-design criteria should maximize potential impact while ensuring a flexible, feasible, and scalable framework at the lowest possible cost for businesses and without imposing unmanageable burdens on market surveillance authorities. On Testing, Simulations, and Recommendations: Table 44 Requirements: • Each product category's composition, fabric weight, and structure (knitted or woven) must be considered, as they are essential for defining testing parameters, methodologies, and thresholds. These, in turn, should align with the most recognized international industry standards as could be ISO standards. • Thresholds should be attainable for all fiber types but for some of them it should be convenient to establish lower thresholds (for instance, natural fibers like wool or regenerated cellulosic fibers like viscose will never match the intrinsic properties of synthetic fibers). Failing to account for this could unconsciously discriminate against certain fiber types. At the same time, these thresholds must be aligned with international practices. The use of recycled fibers -especially through mechanical recycling technologies from post-consumer sources- should also be carefully considered. Washing Cycles: • Aging tests must incorporate drying and ironing processes after washing to replicate real-life scenarios. • The need to reanalyse all parameters after the aging process is a critical point affecting the applicability and affordability of the proposal. Current ISO

ID	Section & line	Comment
		international standards specify comprehensive evaluations of key garment parameters after cleaning cycles. Execution Time: • The proposed cleaning cycles (over 20-30) do not align with the PEFCR developed in collaboration with the Industry * (5-15), given that most garment properties stabilize after the first few washing cycles. More information about the proposal will be needed. • Extending cleaning cycles significantly to determine garment durability would result in very long testing times, particularly when drying and ironing should be included to simulate real-life scenarios. This could extend the lead times beyond reasonable limits. • Although Europe's clothing consumption accounts just for around 20% of global consumption (in units), requiring such extensive testing for garments sold in the EU could create bottlenecks in current testing infrastructures. (*) This statement may be subject to debate for non-fashion-related clothing, such as labor, sportswear, or other categories. → for further discussion Economic Impact: • The high costs of these tests per model and even per color, when extrapolated to all fashion garments entering the European market, might significantly impact brands, retailers, producers -particularly SME competitiveness - and consumers. Comparable Results: • The methodology used to define performance after testing (based on percentage changes from original properties) does not necessarily assess garment durability. A garment that exhibits a lower percentage decrease from its original properties but performs poorly could be considered more "durable" than another garment with a higher percentage decrease but better performance.
613	Physical Durability; 2802	The high and narrow focus on durability and reusability, needs to be balanced out with other performance aspects of textile products, which are required in order to fulfil the needed product functionalities: ü There are trade-offs relating to comfort, durability, technical performance (and aesthetics). ü Trade-offs between recycled content, durability and reusability also need to be take into consideration.
614	9.2.1; 2802	There is a fundamental flaw throughout the section, stemming from the categorization of products without considering the fiber composition. Comparing the performance of a garment using the same parameters across different fibers is unfeasible. In only a few sections the authors seem to acknowledge this, suggesting the exclusion of entire categories based on composition (e.g., cotton denim for trousers, silk for accessories). Neither the weight of the textile fabric, nor its construction is considered. We find this approach unjustified and unacceptable, making any effort to identify valid and useful parameters for the document's purpose null and void.

ID	Section & line	Comment
615	Physical durability; 2802	4. The document works with the assumption that durability will have an impact on the environmental footprint of textiles The working document concludes that “significant improvement potential is associated with increasing the product lifespan, which could be achieved by increasing the physical and emotional durability of the product, improving product care, and facilitating/supporting reparability. Increasing the durability of products is considered an effective strategy to decrease the environmental impacts of this product group. It was estimated that, over the last 20 years, the use time of apparel decreased (…). This results in a significant amount of waste originating from used apparel. Extending the lifespan of 50% of apparel by an extra 9 months of active use would reduce carbon, water and waste footprints by around 4-10% each (WRAP, 2017a).” (lines 331 ff.). The assumption is made in the working document that extending the lifespan of use would have an impact on the environmental footprint of textiles. The working document does not discuss, however, that this assumption only holds true if higher durability equals less consumption. This is highlighted in the UNEP report: “(…) research indicates that increasing the number of times a garment is worn has the greatest effect in reducing its environmental footprint. Note that this works on a garment-by-garment basis and extending the life of garments will not decrease the impacts of the clothing system as a whole unless fewer garments are purchased, in other words unless it comes with a reduction in consumption in those regions or society segments where this is relevant (there are also parts of the world that struggle to meet basic needs).” (UNEP, 2020; https://www.unep.org/resources/publication/sustainability-and-circularity-textile-value-chain-global-stocktaking) Several stakeholders attending the workshop for the 2nd milestone have pointed out that, while better physical durability is a good thing, the more relevant aspect is the actual number of uses of an item. While a concept like “emotional durability” (defined in the working document as “the product’s ability to stay relevant and desirable to the consumer”) is likely to be related to number of wears / uses of an item, mere “physical durability” may or may not influence the number of wears, and thus the environmental footprint. While the input from stakeholders to the workshops has led to acknowledging that textiles and fashion do not follow the same rules, when it comes to consumer behaviour, as other products like for example white goods, this recognition is not thoroughly reflected in the working document. The working document would benefit from a) acknowledging the fact that it is building on an assumption that needs further validation: the assumption that durability will lead to less consumption and consequently, lower the environmental footprint and b) a thorough discussion to what extent this assumption holds true in the context of apparel and footwear (where taste, fashion trends and consumer preferences have an impact on consumption choices). This is especially relevant since the concept of durability plays a central role in the working document (mentioned 241 times), and is one of the core criteria for ESP. Further studies into where durability is relevant for textiles and footwear and their environmental impact, and where it is not, are necessary, given that durability is given such a unique importance in the ESP concept. Ecodesign requirements looking merely at physical durability, in an undifferentiated way, might unintentionally lead to a “race to the bottom” and further stimulate fast fashion.
616	9.2.1; Workshop questions	1. Do you agree with the methodology describing physical durability? Why? How can it be improved? o Durability requirements should be based on the most common causes of apparel failure. o Reevaluating all parameters post-aging is unnecessary and misaligned with industry standards. o Excessive parameters and aging procedures are not cost-effective.

ID	Section & line	Comment
		o When defining the framework, it is important to consider fabric construction, fabric weight, and fibre type while balancing the proposal with the complexity of textile products. o The defined minimum requirements, such as pilling grades, exceed market practices and do not account for fibre properties and recycled content. o Certain testing methods and conditions are incorrect and do not align with international industry practices 3. Do you agree with the categories proposed? Why? No. The report on lines 422-426 affirm that the list of categories defined in the PEF framework will be used. However, table 44 use another list of product's categories. The durability proposal should follow the PEF approach with minor suggestions. Besides, product categories need to be related to the PRODCOM code for legal certainty. 4. Do you agree with currently not analysing physical durability of accessories? Why? What could be an alternative approach? Yes, the category is too heterogeneous. 5. Do you agree with the intervals chosen when describing BC, BAT and BNAT? Why? How would it be improved? o Failures are the same for all product categories and the function of garments is not considered. o Defining performance as a percentage doesn't allow to establish a level playing field, as it rewards the degree of decrease rather than the actual performance of the product. As a result, a product with a lower decrease but worse final performance might be considered "more durable," which may not accurately reflect its true durability.
617	9.2.1; 2802 to 3011	Physical durability: While there may be a close correlation between physical durability and the duration in use or possession for other product groups (such as energy-related products, whitegoods etc.), there is no evidence that this is the case for textiles and especially clothing. Although there are no comprehensive EU wide empirical studies yet that clearly identify the reasons for end of use or disposal of apparel (a recent study, however, indicates that that two-thirds of garments are discarded for reasons other than physical durability) (1), the huge amounts of clothes that are transferred to second hand markets in the Global South or haven't even been sold to consumers, clearly show that clothes are not thrown away because of their poor durability, but because of the 'fast fashion' business model and a constant oversupply of cheap new products. To determine or predict a textile product's lifespan by defining durability requirements therefore does not seem to be an effective approach. In addition, the currently proposed PEF methodology significantly overemphasizes the influence of physical durability and physical durability testing in estimating garment lifetime, its use in ESPR would therefore encourage an increased use of polyester clothing, even though there is clear evidence that the increasing availability of cheap polyester clothing (starting from 1997) was and still is the primary enabler of fast fashion and the source of huge

ID	Section & line	Comment
		amounts of microplastics. In addition, placing too much focus on durability might also lead to higher "scores" for other harmful products such as genetically modified (GMO) cotton designed to have higher durability. As stated also by the European Parliament in Resolution P9TA (2023) 0202, the use of GMO cotton has very adverse impacts on the environment and on workers having to deal with it. To ensure the effectiveness of ESPR and especially this parameter, and to really define measures against fast fashion and the short duration in use respectively possession of many textile products, a thorough analysis using empirical data (which the Digital Product Passport could provide) should be undertaken to identify the reasons for end of use or disposal of apparel and the actual link between physical attributes of textile products and their different lifespans. And, last but not least, it must be considered that the durability of a textile product depends much less on the fibre type than on the quality of the processing (starting with high-quality fibre selection, optimized yarn spinning, robust fabric construction, durable dyeing/finishing, and precise garment assembly methods). Reference: (1) Laitala, K., and Klepp, I. G. (2022): Review of clothing disposal reasons - Clothing research
618	9.2.1 Physical durability; 2,802 ff.	9.2.1.1 Figure 21: The overview is not logical to us. The end of the flow diagram is the box "Confectioning". It does not depict the interdependencies of material and techniques and their influence on product quality. What is the message of this flow diagram? Lines 2,832 ff.: The user behavior should integrate the aspect of clothing physiology. Clothing physiology is a major influencing factor for wearing an item of clothing and also for sorting it out. 9.2.1.2 (line 2,863): The aspects stated in lines 2,872 ff. are very important and are not discussed deeply enough. The Task 4 on Technologies does not reflect on the major aspect of function and comfort which would include the moisture management. Physical durability is an attribute almost easy to determine while function and comfort are much more difficult to describe. Nevertheless, they are decisive for the performance and the final lifetime and should not be neglected.
619	Product description from the perspective of physical durability; Category description & Pilling resistance	It would be beneficial to elaborate on the product categories in more detail. Example: what categorises a product as a blouse or shirt, taking under consideration the field of use, fiber content, etc.) Pilling resistance of a jacket based on ISO 12945-1:2020 is 2000 cycles, whereas the pilling resistance of a T-Shirt is 14 400 cycles. We need further explanation on the definition of cycles per category.
620	9.2.1; 2802 General Comment	The member companies of the[...] define company-specific quality parameters and test them, partly on the basis of existing standards in institutes or in their own laboratories or in the company. The question of how companies can prove compliance with the Ecodesign requirements from the Textile Delegated Act is essential for us. Because it must

ID	Section & line	Comment
		be possible for SMEs to demonstrate the conformity of their products with the least effort and cost. The PPE Regulation contains the instrument of self-certification for class 1 PPE, this means testing yourself and confirming compliance with the standard by means of a separate declaration of conformity. This procedure, which is already regulated by law, can also be applied to the ESPR. This legal standardization has been state of the art in the industry for years. Products that have been tested according to English or American standards, for example, must be recognised, following the principle of equivalence.
622	Physical durability; 2802-3811	My concern: Favouring products made from synthetic raw materials by overweighting the importance of physical durability testing. Explanation: PEF methodology significantly overweight's the influence of physical durability on service life. Garments need to be strong enough to provide a long use phase, but evidence linking superior strength to increased textile longevity is lacking. Synthetic fibre products consistently outperform natural fibre products in most physical durability tests due to the high tensile properties of fossil fuel-based textiles (IWTO Position Paper 1). However, the strength of a garment is not the dominating factor determining whether consumers keep it. Evidence confirms that consumers keep/discard garments based on perceived value, quality and fit. https://clothingresearch.oslomet.no/2022/10/19/review-of-clothing-disposal-reasons/ Additionally, there is no robust or evidence-based way to weight and amalgamate the different physical test results together with other attributes into a single score. A better way: An Ecodesign for textiles scheme that priorities physical durability test performance, in the absence of evidence that strong physical performance increases lifetime, will significantly bias in favour of clothing made from synthetics. Why would the EU implement a design directive that will deliver the opposite to its policy of putting fast fashion out of fashion? A more robust measure of lifespan should be applied (i.e. use of DPP-derived data from waste collection facilities as described above). In the absence of a more robust measure, the necessary research must be undertaken to identify, measure and weight the factors proven to determine textile longevity.
623	9.2.1 physical durability; 2802	We (with several French brands) have worked on the past 3 years on building a common durability specification / process. We end up to a conclusion that is matching with the future of textile industry that we expect. Our specification book + our processes have been modified according to this work. That would be wonderful if you could have the same way of making / thinking the durability.

ID	Section & line	Comment
		after making the first LCA we noticed that the use of the product is a major impact. We have to take it onti account
634	9.2.1; 2807-2828	We recognise that physical durability plays a crucial role in the ESPR conversation. However, it is important to consider potential compromises to ensure a balanced approach. For instance, polyester materials presents on average higher abrasion resistance and superior dimensional stability than cotton, therefore, an exclusive, poorly framed focus on durability could unintentionally disadvantage certain fibres and lead to prioritising virgin materials. Durability testing should target both fabric and product failures.
635	9.2.1.1; 2811	To clarify, the function, purpose and performance is decided at the design stage and then informs the decision of raw materials selected, the fabric and finishing, through to garment development.
636	9.2.1.1; 2811	To clarify, the function, purpose and performance is decided at the design stage and then informs the decision of raw materials selected, the fabric and finishing, through to garment development.
637	9.2.1.1; 2811	To clarify, the function, purpose and performance is decided at the design stage and then informs the decision of raw materials selected, the fabric and finishing, through to garment development.
638	9.2.1.1; 2811	To clarify, the function, purpose and performance is decided at the design stage and then informs the decision of raw materials selected, the fabric and finishing, through to garment development.
639	9.2.1.1; 2817	The decisions made on the manufacturing of the yarn impacts the size/denier/no. of filaments of the yarn and the cross-section which are related to performance, strength and durability. Also, any additives which may be included during the extrusion process will also have an impact of the physical durability and performance of the final textile and product.
640	9.2.1; 2817-2823	In staple fiber spinning, the degree of twist is one of the parameters that is designed and monitored to achieve certain characteristics in yarns. While it is true that going towards the highest possible twist leads to an increase in tenacity and pilling resistance (as the fibres are more cohesive and increase friction between fibers), this can be to the detriment of other characteristics, in particular the soft feel of the yarns. For example, it is known that the degrees of twist are generally for three types depending on the end use (weaving - warp; weaving - weft; knitting). In a nutshell, the highest degree of twist, near to physical limit, makes the resulting yarn more tenacious but less elastic and soft than the one with a lower degree of twist. In practice, the context is more complex: the yarn manufacturer chooses according to the effects/feel he wants to achieve, e.g. for the winter collection, for the production of velvets or for peach fabrics, it may tend towards less twisted yarns. It also could depend on the small differences between different batches of material. In addition, another undesirable effect is spirality: as the twist increases, the yarn tends to have an opposite response which is reflected in the final fabric, this is another reason why low-twist yarns are usually chosen in knitwear, because spirality can lead to a production defect (in fact it is also one of the parameter proposed in the assessing of durability). In industrial practice, over-twisted yarns are also used, i.e. with a degree of twist exceeding the physical limit of the material, leading to particular effects (crèpe, creponne, seersucker in some cases). Some useful sources include: https://www.acimit.it/wp-content/uploads/2022/06/Filatura-free.pdf https://www.testextextile.com/it/all-about-yarn-twisting/

ID	Section & line	Comment
		https://florencecashmereyarn.com/it/la-torsione-dei-filati/?srsltid=AfmBOopvlxWdUtxNO0k04EHy22gKhzI0bsxC9XFLQCKYD3GxpNKR2dYF
641	9.2.1; 2817-2823	It is mentioned how much humidity can affect the production phase, and it is realistic, but this is not transferred to the durability of the product as the humidity level in the air is not a controllable parameter. Trade-offs between durability and incorporation of recycled content should be considered.
642	9.2.1.1; 2817	The decisions made on the manufacturing of the yarn impacts the size/denier/no. of filaments of the yarn and the cross-section which are related to performance, strength and durability. Also, any additives which may be included during the extrusion process will also have an impact of the physical durability and performance of the final textile and product.
643	9.2.1.1; 2817	The decisions made on the manufacturing of the yarn impacts the size/denier/no. of filaments of the yarn and the cross-section which are related to performance, strength and durability. Also, any additives which may be included during the extrusion process will also have an impact of the physical durability and performance of the final textile and product.
645	9.2.1.1; 2829 + 2894 + 2939	We strongly recommend relying on a larger range of scientific and industry references for providing evidence-based scientific support to the European policymaking process. It could be by requesting data from SGS and Bureau Veritas which globally are the biggest testing companies.
647	9.2.1.1; 2829	The "Cutting Manufacturing" step is missing. Indeed, we suggest to add it between fabric manufacturing and confectioning. The knit fabric, before cutting, need to "rest" flat to involve the dimensional stability : it influences the physical durability.
651	9.2.1; 2832-2848	User behaviour This raises the question of whether users need this information at all. The durability aspects, namely the correct handling in the care of the textiles, are already clearly indicated to the consumer by the textile labelling and the care instructions. Finding a definition that makes durability aspects testable and measurable is desirable in the differentiation from fast-fashion or ultra-fast-fashion articles, but cannot be explained by consumer behaviour alone. The motivation for the right price-performance ratio and the fashionability of the textile is not the focus here in the intrinsic decision to buy a product. In this point, it remains open and questionable whether the customer needs further access to durability properties at all if there is already information about the washing instructions or whether there is a specific definition of fast and ultra-fast fashion items.
652	9.2.1.1.; 2832-2848	User behaviour This raises the question of whether users need this information at all. The durability aspects, namely the correct handling in the care of the textiles, are already clearly indicated to the consumer by the textile labelling and the care instructions. Finding a definition that makes durability aspects testable and measurable is desirable in the differentiation from fast-fashion or ultra-fast-fashion articles, but cannot be explained by consumer behaviour alone. The motivation for the right price-performance ratio and the fashionability of the textile is not the focus here in the intrinsic decision to buy a product. In this point, it remains open and questionable whether the customer needs further access to durability properties at all if there is already information about the washing instructions or whether there is a specific definition of fast and ultra-fast fashion items. Legislative frameworks and industrial practices Setting legal quality parameters by law would be too strong an interference with entrepreneurial freedom. Interfering with the freedom of decision of those responsible for the product is a far-reaching step that has not been compared with specific CO2 savings as a method of measurement, nor can specific, verifiable CO2 savings be calculated from various durability parameters. To show that textile and clothing manufacturers in principle bring inferior quality to market is a negative connotation that is not used neutrally in the debate and must be considered in a more differentiated way. It should be noted that there are companies, especially SMEs, that take into account the perfect match between price-performance ratio and quality parameters.

ID	Section & line	Comment
655	9.2.1.1; 2834-2835	We do not agree with the sentence “users set specific demands for future products”. For example, many consumers buy sportswear or outdoor gear, like jackets, that may have high durability based on the framework proposed in the PS and use them as fashion items or leisurewear. However, we do not think that these purchases will necessarily drive the market to have more durable products because of users’ specific demands. They are just trends pushed forward by marketing. Already in 2020, a Eurobarometer survey found that Almost nine in ten respondents (88%) agree that clothing should be made to last longer (https://ec.europa.eu/commission/presscorner/detail/en/qanda_20_330). If the PS statement is true, we invite the JRC to substantiate this claim demonstrating how the consumer demand registered by the Eurobarometer translated into better durability for clothing in the last years.
656	9.2.1.1; 2834-2835	We do not agree with the sentence “users set specific demands for future products”. For example, many consumers buy sportswear or outdoor gear, like jackets, that may have high durability based on the framework proposed in the PS and use them as fashion items or leisurewear. However, we do not think that these purchases will necessarily drive the market to have more durable products because of users’ specific demands. They are just trends pushed forward by marketing. Already in 2020, a Eurobarometer survey found that almost nine in ten respondents (88%) agree that clothing should be made to last longer (https://ec.europa.eu/commission/presscorner/detail/en/qanda_20_330). If the PS statement is true, we invite the JRC to substantiate this claim demonstrating how the consumer demand registered by the Eurobarometer translated into better durability for clothing in the last years.
657	9.2.1.1; 2834-2835	We do not agree with the sentence “users set specific demands for future products”. For example, many consumers buy sportswear or outdoor gear, like jackets, that may have high durability based on the framework proposed in the PS and use them as fashion items or leisurewear. However, we do not think that these purchases will necessarily drive the market to have more durable products because of users’ specific demands. They are just trends pushed forward by marketing. Already in 2020, a Eurobarometer survey found that almost nine in ten respondents (88%) agree that clothing should be made to last longer (https://ec.europa.eu/commission/presscorner/detail/en/qanda_20_330). If the PS statement is true, we invite the JRC to substantiate this claim demonstrating how the consumer demand registered by the Eurobarometer translated into better durability for clothing in the last years.
658	Chapter 9; 2841	Please add after 2841: A common habit to consumers is to online buy more items or sizes than needed and then return the items they don't like, causing unnecessary waste.
659	9.2.1.1; 2842-2846	We disagree with this statement, as it is misleading, Higher-quality materials and craftsmanship increase production costs and economic value.
660	9.2.1; 2842	It is true that consumers generally associate higher price with higher quality. Experience shows that this is generally the case. Studies are available atGermanFashion Association, and can be shared upon request. It is evident that a product made with more refined raw materials or craftsmanship carries a higher production cost, and consequently, a greater economic value, including in terms of price. For example, a double-stitched seam takes more time to produce, costs more, and is more durable than a single-stitched seam.
663	9.2.1; 2843	This is not correct in this absolute sense! It is true that consumers generally associate higher price with higher quality. Experience shows that this is generally the case. Studies are available at GermanFashion.
666	9.2.1.1.; 2847-2854	There is clearly a need for a standard method for measuring and communicating durability of garments to consumers, and within the industry itself. To the best of my knowledge, most of the focus in durability research focuses on less technical products. The research being conducted by [...] on the durability of technical garments in the form of rain jackets as an example product aims to fill a gap in the current research on how to determine durability for this sub-category of garments.
667	9.2.1; 2849-2854	To show that textile and clothing manufacturers in principle bring inferior quality to market is a negative connotation that is not used neutrally in the debate and must be considered in a more differentiated way. It should be noted that there are companies, especially SMEs, that take into account the perfect match between price-performance ratio and quality parameters. If in France shelf-life parameters have already been established by law, the JRC should also be able to see them. Otherwise, the impression arises that either the research was insufficient or that the legislation is not transparent.
668	9.2.1.1.; 2849-2862	If in France shelf-life parameters have already been established by law, the JRC should also be able to see them. Otherwise, the impression arises that either the research was insufficient or that the legislation is not transparent.

ID	Section & line	Comment
		This is not correct in this absolute sense! It is true that consumers generally associate higher price with higher quality. Experience shows that this is generally the case. Studies are available at GermanFashion Association.
670	9.2.1; 2851	Conclusion from national legislation in France (which may, incidentally, be contrary to European law) in view of the still pending European directive (WFD) is not useful.
671	9.2.1.1; 2853	If the authors do not know the specific parameters, the French marketers know and use the physical durability requirements from the textile eco-organism Refashion (law n°2020-105 art. L 541-10-3).
672	9.2.1.1 The ecosystem of physical durability; 2853	"In France, economic operators placing products generating waste on the French market are requested by the Law n° 2020-105 (4) to report information about durability of the product. It is unknown to the authors what specific parameters and framework should be used to describe the physical durability of textile apparel in this context". Answer is that durability assessment is nowadays not mandatory but voluntary to benefit of an eco-modulation (see: Les éco-modulations, qu'est-ce que c'est ? – FAQ Refashion). What is obligatory is to declare the articles placed on the market. Today, an available framework is the Refashion (the French eco-organism) framework for durability assessment for eco-modulations: based on the French DURHABI project's results. Parallelly, this same project is feeding national and European standard recommendations in the aim to dispose of a unique framework. DURHABI study was a public and collective applied research program for the count of BNITH (French standardization committee) and ADEME (agency for the sustainable development reporting to the French government and partially financially supported by ADEME and REFASHION (eco organism). Key findings and results were expected by partners, professional instances and federations and government. Information has been related to internet and social network to inform both partners, professional and consumers and to take advantage of their participations to the consumers national studies. Specific articles and webinar (included ecological transition ministry consultation) permitted to explain and demonstrate its methodology and deliverables. See following links pushed by IFTH, federations or public instances: - English call of partners relayed by Paris Good Fashion: https://parisgoodfashion.fr/en/news/ifth-launches-the-durhabi-study-to-evaluate-the-durability-of-textile-products-383/ - French relay of the consumers enquiries (launch: call of participation) from Fédération de la maille, lingerie et balnéaire: https://www.la-federation.com/fr/news-breves/lancement-enquete-nationale-sur-la-durabilite-des-textiles-n1-2000.html - French relay of the second consumers enquiries (call of participation) from Alliance du commerce: https://alliancecommerce.org/durhabi-enquete-sur-les-causes-de-fin-de-vie-des-vetements/ - French explanation of the project and its aim and trials campaigns DURHABI: https://www.ifth.org/2023/09/28/durhabi-une-initiative-mondiale-unique-pour-evaluer-la-durabilite-physique-des-produits-textiles/ - French technical webinar from the IFTH https://www.youtube.com/watch?v=R9Xih5gx6bI - French interview of brands, IFTH partners and French federation https://www.youtube.com/watch?v=90gacC6J5uY

ID	Section & line	Comment
		https://www.youtube.com/watch?v=eHBQxN8shXI - Citation of the project in « Les Cahiers de La Mode Durable » from DELOITTE : https://refashion.fr/eco-design/sites/default/files/fichiers/DeloitteSustainability_LaDurabilite_CahierModeDurableN3.pdf p6. - ADEME consultation : presentation of the DURHABI methodology for the French government https://developpement-durable-gouv-fr.zoom.us/rec/play/3g0pY3pbvrPLD9rfSRejUnm1BHOyOOi_4PE6wOuDDPqfTEDt-tXmpRFQo-TAHh1nGFncBTKVzK0Tcyjo.xmCGbDX5ybJKKvFp?canPlayFromShare=true&from=share_recording_detail&continueMode=true&componentName=rec-play&originRequestUrl=https%3A%2F%2Fdeveloppement-durable-gouv-fr.zoom.us%2Frec%2Fshare%2FTqqIP8SlNMewl6qgUReu382L5YULTDDbDmfjRWJoLIM6DKRiB07bzzr6Q0jghsXk.o4P_AHWcLuJi3wmL - Presented at the first workshop of ESPR by Carole Garbowski – IFTH France and Ewin MAES – CENTEXBEL Belgium the march 19th 2024: Durhabi is a study to be followed. DURHABI's results and deliverables were obtained in consensus with the 80 partners brands and aimed to contribute to French standardization: via the document NF G30 113-1(general guidelines) and 2 (tee-shirts) to be published beginning of 2025. Standards for other categories are about to be written and validated. For the standardization see: - link to the part 1: BNITH French standard on durability NF G30-113- 1 https://www.boutique.afnor.org/fr-fr/norme/nf-g301131/articles-textiles-dhabillement-et-linge-de-maison-evaluation-de-la-durabili/fa201676/440816 - link to the part 2: BNITH standard on durability NF G30-113-2 https://www.boutique.afnor.org/fr-fr/norme/nf-g301132/articles-textiles-dhabillement-et-linge-de-maison-evaluation-de-la-durabili/fa210827/440817 DURHABI's results are also feeding CEN (European standardization: via the working group TC248 WG 39 on circular design for clothing): CEN - CEN/TC 248/WG 39, whose working program has been officially published on-line and whose specific document speak about min requirements for clothing durability (same are existing for bed, bath, kitchen articles and workwear). The aim of these WG is to fix consensual requirements and recommendations (test lists &thresholds), coming from robust data &expert's agreements; accepted and pushed by representative serious brands
673	9.2.1; 2855-2862	To effectively influence or enhance the longevity of textiles, companies in the textile industry must consider their internal quality standards and define these standards in relation to Fast-Fashion and Ultra-Fast-Fashion actors. While some companies promote physically durable products and focus on communicating the essential properties of textile clothing, this approach is primarily observed among players specializing in sports and workwear. However, it must be critically examined whether the sports industry truly pursues these goals. At which points is this scientifically demonstrated or made clear? In contrast, other companies frequently introduce textiles to the market to satisfy customer demand for new items or encourage the consumption of new collections. These latter business models typically do not emphasize the physical durability of their products, as items are often replaced or discarded relatively soon after purchase. To address this, it is essential to define Fast-Fashion and Ultra-Fast-Fashion actors clearly, using universally applicable characteristics to differentiate them. Such a definition would provide a foundation for setting targeted quality standards, particularly in relation to the

ID	Section & line	Comment
		rapid production cycles and low durability often associated with these segments. By doing so, companies can better position themselves to counter the environmental and economic challenges posed by these fast-paced business models. The assumption that fashionable clothing is essentially a "disposable item" is not true. There are many companies that produce fashionable and durable clothing for consumers. A blanket demonisation of all clothing and textile manufacturers is not objective and the presentation urgently needs to be corrected.
674	9.2.1.1.; 2855-2862	To effectively influence or enhance the longevity of textiles, companies in the textile industry must consider their internal quality standards and define these standards in relation to Fast-Fashion and Ultra-Fast-Fashion actors. While some companies promote physically durable products and focus on communicating the essential properties of textile clothing, this approach is primarily observed among players specializing in sports and workwear. However, it must be critically examined whether the sports industry truly pursues these goals. At which points is this scientifically demonstrated or made clear? In contrast, other companies frequently introduce textiles to the market to satisfy customer demand for new items or encourage the consumption of new collections. These latter business models typically do not emphasize the physical durability of their products, as items are often replaced or discarded relatively soon after purchase. To address this, it is essential to define Fast-Fashion and Ultra-Fast-Fashion actors clearly, using universally applicable characteristics to differentiate them. Such a definition would provide a foundation for setting targeted quality standards, particularly in relation to the rapid production cycles and low durability often associated with these segments. By doing so, companies can better position themselves to counter the environmental and economic challenges posed by these fast-paced business models. The assumption that fashionable clothing is essentially a ""disposable item"" is not true. There are many companies that produce fashionable and durable clothing for consumers. A blanket demonisation of all clothing and textile manufacturers is not objective and the presentation urgently needs to be corrected.
677	9.2.1.1; 2856-2862	Including a paragraph about the business model in a discussion on the physical durability of the product appears to lack direct relevance. The report does not provide an explanation for how the business model relates to physical durability, and there seems to be no clear correlation. The paragraph includes generalized statements that may not align with the scientific nature of the report, which is expected to be based on data. Additionally, this paragraph does not present sources or data to support its claims. Specifically, the following statement lacks supporting evidence: “Usually, economic operators using this business model would not promote physical durability of the textile apparel because the item would be changed or disposed of by the user relatively soon after purchase.”
678	9.2.1.1; 2858-2862	We caution against generalization around sports and workwear. Sports and outerwear brands are also shifting closer to the lifestyle calendar.
679	9.2.1.1; 2858-2862	We caution against generalisation around sports and workwear. Sports and outerwear brands are also shifting closer to the lifestyle calendar.
680	9.2.1.1; 2858-2862	We caution against generalization around sports and workwear. Sports and outerwear brands are also shifting closer to the lifestyle calendar.
681	9.2.1; 2860	The assumption that fashionable clothing is essentially a "disposable item" is not true. There are many companies that produce fashionable and durable clothing for consumers. A blanket demonisation of all clothing and textile manufacturers is not objective and the presentation urgently needs to be corrected.
682	9.2.1.1; 2860	We not agree with the statement "Usually, economic operators using this business model [...] after purchase". Where this bias comes from ? It is not applicable for every brand with this business model.

ID	Section & line	Comment
686	9.2.1.2; 2863-2879 and 2939	Synthetic fibres may more easily pass the threshold of possible future requirements on physical durability. If the same threshold is set for natural and synthetic materials, there will be a race to the bottom to find a threshold that is low enough to push the performance (and hence the cost) of natural materials, without really pushing for better synthetics – with polyester remaining the cheapest fibre. It is reasonable to suppose that companies will look for the easiest and cheapest solution to implement ecodesign requirements since they will most probably face increased costs of production due to the EU legislation. Companies may be incentivised to increase the share of synthetic materials within their material basket to ensure compliance with physical durability requirements at a lower cost. If you are interested in an additional argument on natural vs synthetic under durability, we added the following: We regret that the JRC did not assess BC, BAT and BNAT separately for synthetics and natural fibres, at least to assess whether the BC of apparel products would be also dependent on the material chosen, among other factors. On the contrary, in Section 9 the JRC seems to dismiss this variable, but at the same time the JRC recognises in Section 10 that "is possible to influence the intrinsic durability of products with many factors, which include the use of different fibres: for instance, in the manufacturing of denim products, the utilization of synthetic fibres, linen and hemp -rather than 100% cotton- can help to produce high-durability denim products particularly with respect to tensile and abrasion resistance (Elmogahzy, 2020)." The approach of the JRC seems incoherent.
687	9.2.1.2; 2863-2879 and 2939	It is our view that setting physical durability thresholds which are fibre-neutral is problematic as: > To encompass all fibres and not exclude a whole fibre group completely, the threshold will need to be set so low so it will be easy to meet for synthetic fibres. I.e. a 'race to the bottom' for all fibres, and no incentives for improvements for synthetics. > It will be more expensive for natural fibres to meet the minimum threshold than for synthetic fibres. > The approach will indirectly incentivise the use of synthetics meaning that it will be cheaper for companies to comply with Ecodesign by incorporating synthetic fibres. While it is true that the performance of textile products depends on many factors, natural and man-made fibres perform differently in the tests traditionally conducted to measure the physical durability of products. Synthetic materials tend to be advantaged in many tests due to their fibre properties. Natural materials can achieve the same level of performance in those tests, though fabrics may need to be denser or heavier, with higher cost implications than synthetic fibres. However, garments made of synthetics do not necessarily have a longer lifespan than those made of natural materials. On the contrary, garments made of natural materials often tend to be more valued by users, who will take better care of these garments and keep them in use for longer. It is, hence, crucial to set the right ecodesign requirements and incentives to ensure a minimum level of quality for both natural and synthetic materials, without indirectly favouring the latter or incentivise the use of blends between natural and synthetic materials that are not recyclable at scale. Synthetic fibres like nylon and polyester generally have higher tensile strength compared to natural fibres. Cotton fibres have high strength but low extensibility and elasticity. Wool fibres have relatively lower strength but high extensibility and elasticity. Furthermore, synthetic fibres like nylon and polyester typically have high abrasion resistance. Natural fibres, like cotton and wool, generally have lower abrasion resistance compared to synthetics. Fibre length and fabric construction also play significant roles in abrasion resistance, regardless of fibre type. Hence, if Table 44 will be used as a template for design requirements in Task 6, we strongly advise having different thresholds on tensile strength, tear strength, bursting strength and abrasion for

ID	Section & line	Comment
		fabrics made with natural fibres on one side and synthetics on the other side. As for blends, a threshold could be defined to decide whether a product falls into one category or the other: for example, 90% or 80% of natural fibres to have to comply with the threshold for natural materials (hence if you have more 10% or 20% respectively of synthetics in a blended product, you would need to comply with the threshold for synthetic materials). Pilling results from fibres projecting from the fabric surface, entangling each other during wear/abrasion and forming a knot. Pilling is mainly influenced by the fibre twist, fibre length (staple) and construction of the fabric (stitch length or density of the fabric) and any finishes. Long-staple fibres typically pill less than short-staple fibres. The weaker and shorter the fibres, the easier pilling will occur. However, the weaker the fibres, the easier the knot will also break off. Natural fibres therefore have a higher tendency to form knots, but they can break off and leave the fabric "clean". Synthetics may resist pilling more, but the pilling will remain on the surface in the long run due to their strength. Fabrics (especially knits) consisting of synthetic staple fibres pose a high risk for pilling. Blended fabrics, consisting of a strong and a weak fibre, are the most problematic. The weak fibre can easily break and form a knot which will then be kept to the surface by the stronger fibre. For example, a poly-cotton blend may pill because the staple polyester pills but the cotton does not; however, the pill remains attached to the fabric due to the strength of the polyester. All these considerations are not reflected in the current framework proposed in Table 44. Synthetic fibres often have better colour fastness compared to natural fibres. Cotton may require special treatments to improve its colour fastness, especially to washing and light exposure. Wool naturally has good colour retention properties but may still require treatments for optimal fastness. Hence we also believe that a different threshold should be proposed for natural and synthetics when assessing appearance after washing with ISO 15487 related to all different aspects to visually inspect.
688	9.2.1.2; 2863-2879 and 2939	It is our view that setting physical durability thresholds which are fibre-neutral is problematic as: To encompass all fibres and not exclude a whole fibre group completely, the threshold will need to be set so low so it will be easy to meet for synthetic fibres. I.e. a 'race to the bottom' for all fibres, and no incentives for improvements for synthetics. It will be more expensive for natural fibres to meet the minimum threshold than for synthetic fibres. The approach will indirectly incentivise the use of synthetics meaning that it will be cheaper for companies to comply with Ecodesign by incorporating synthetic fibres. While it is true that the performance of textile products depends on many factors, natural and man-made fibres perform differently in the tests traditionally conducted to measure the physical durability of products. Synthetic materials tend to be advantaged in many tests due to their fibre properties. Natural materials can achieve the same level of performance in those tests, though fabrics may need to be denser or heavier, with higher cost implications than synthetic fibres. However, garments made of synthetics do not necessarily have a longer lifespan than those made of natural materials. It is, hence, crucial to set the right ecodesign requirements and incentives to ensure a minimum level of quality for both natural and synthetic materials, without indirectly favouring the latter or incentivise the use of blends between natural and synthetic materials that are not recyclable at scale.

ID	Section & line	Comment
689	9.2.1.2; 2863-2879 and 2939	It is our view that setting physical durability thresholds which are fibre-neutral is problematic as: > To encompass all fibres and not exclude a whole fibre group completely, the threshold will need to be set so low so it will be easy to meet for synthetic fibres. I.e. a 'race to the bottom' for all fibres, and no incentives for improvements for synthetics. > It will be more expensive for natural fibres to meet the minimum threshold than for synthetic fibres. > The approach will indirectly incentivise the use of synthetics meaning that it will be cheaper for companies to comply with Ecodesign by incorporating synthetic fibres. While it is true that the performance of textile products depends on many factors, natural and man-made fibres perform differently in the tests traditionally conducted to measure the physical durability of products. Synthetic materials tend to be advantaged in many tests due to their fibre properties. Natural materials can achieve the same level of performance in those tests, though fabrics may need to be denser or heavier, with higher cost implications than synthetic fibres. However, garments made of synthetics do not necessarily have a longer lifespan than those made of natural materials. On the contrary, garments made of natural materials often tend to be more valued by users, who will take better care of these garments and keep them in use for longer. It is, hence, crucial to set the right ecodesign requirements and incentives to ensure a minimum level of quality for both natural and synthetic materials, without indirectly favouring the latter or incentivise the use of blends between natural and synthetic materials that are not recyclable at scale. Synthetic fibres like nylon and polyester generally have higher tensile strength compared to natural fibres. Cotton fibres have high strength but low extensibility and elasticity. Wool fibres have relatively lower strength but high extensibility and elasticity. Furthermore, synthetic fibres like nylon and polyester typically have high abrasion resistance. Natural fibres, like cotton and wool, generally have lower abrasion resistance compared to synthetics. Fibre length and fabric construction also play significant roles in abrasion resistance, regardless of fibre type. Hence, if Table 44 will be used as a template for design requirements in Task 6, we strongly advise having different thresholds on tensile strength, tear strength, bursting strength and abrasion for fabrics made with natural fibres on one side and synthetics on the other side. As for blends, a threshold could be defined to decide whether a product falls into one category or the other: for example, 90% or 80% of natural fibres to have to comply with the threshold for natural materials (hence if you have more 10% or 20% respectively of synthetics in a blended product, you would need to comply with the threshold for synthetic materials). Pilling results from fibres projecting from the fabric surface, entangling each other during wear/abrasion and forming a knot. Pilling is mainly influenced by the fibre twist, fibre length (staple) and construction of the fabric (stitch length or density of the fabric) and any finishes. Long-staple fibres typically pill less than short-staple fibres. The weaker and shorter the fibres, the easier pilling will occur. However, the weaker the fibres, the easier the knot will also break off.

ID	Section & line	Comment
		Natural fibres therefore have a higher tendency to form knots, but they can break off and leave the fabric "clean". Synthetics may resist pilling more, but the pilling will remain on the surface in the long run due to their strength. Fabrics (especially knits) consisting of synthetic staple fibres pose a high risk for pilling. Blended fabrics, consisting of a strong and a weak fibre, are the most problematic. The weak fibre can easily break and form a knot which will then be kept to the surface by the stronger fibre. For example, a poly-cotton blend may pill because the staple polyester pills but the cotton does not; however, the pill remains attached to the fabric due to the strength of the polyester. All these considerations are not reflected in the current framework proposed in Table 44. Synthetic fibres often have better colour fastness compared to natural fibres. Cotton may require special treatments to improve its colour fastness, especially to washing and light exposure. Wool naturally has good colour retention properties but may still require treatments for optimal fastness. Hence we also believe that a different threshold should be proposed for natural and synthetics when assessing appearance after washing with ISO 15487 related to all different aspects to visually inspect.
690	9.2.1.2; 2863-2879	The differentiation between natural and synthetic fibres is insufficiently differentiated here. The report itself notes that the factors that can influence durability are more complex to analyse. Durability and comfort must go hand in hand, comfort is very important for an active and long use of the garment. In addition, mixtures are generally not discussed here, which can have significantly better longevity properties when synthetic and natural fibres are mixed. An important industry that demonstrates this very well is leasing providers in the laundry industry, where a mixture of cotton and polyester is often used to ensure the increased washing cycles and to increase the longevity of the products. Fibre differentiation should not be based on the same evaluation parameters, as they have completely different properties that cannot be easily superimposed. It is also important that blends can increase potential longevity requirements. Objective scientific consideration is lacking here.
691	9.2.1.2; 2863-2879 and 2939	It is our view that setting physical durability thresholds which are fibre-neutral is problematic as: > To encompass all fibres and not exclude a whole fibre group completely, the threshold will need to be set so low so it will be easy to meet for synthetic fibres. I.e. a 'race to the bottom' for all fibres, and no incentives for improvements for synthetics. > It will be more expensive for natural fibres to meet the minimum threshold than for synthetic fibres. > The approach will indirectly incentivise the use of synthetics meaning that it will be cheaper for companies to comply with Ecodesign by incorporating synthetic fibres.
692	9.2.1.2; 2863-2879 and 2939	While it is true that the performance of textile products depends on many factors, natural and man-made fibres perform differently in the tests traditionally conducted to measure the physical durability of products. Synthetic materials tend to be advantaged in many tests due to their fibre properties. Natural materials can achieve the same level of performance in those tests, though fabrics may need to be denser or heavier, with higher cost implications than synthetic fibres. However, garments made of synthetics do not necessarily have a longer lifespan than those made of natural materials. On the contrary, garments made of natural materials often tend to be more valued by users, who will take better care of these garments and keep them in use for longer. It is, hence, crucial to set the right ecodesign requirements and incentives to ensure a minimum level of quality for both natural and synthetic materials, without indirectly favouring the latter or incentivise the use of blends between natural and synthetic materials that are not recyclable at scale. Synthetic fibres like nylon and polyester generally have higher tensile strength compared to natural fibres. Cotton fibres have high strength but low

ID	Section & line	Comment
		extensibility and elasticity. Wool fibres have relatively lower strength but high extensibility and elasticity. Furthermore, synthetic fibres like nylon and polyester typically have high abrasion resistance. Natural fibres, like cotton and wool, generally have lower abrasion resistance compared to synthetics. Fibre length and fabric construction also play significant roles in abrasion resistance, regardless of fibre type. Hence, if Table 44 will be used as a template for design requirements in Task 6, we strongly advise having different thresholds on tensile strength, tear strength, bursting strength and abrasion for fabrics made with natural fibres on one side and synthetics on the other side. As for blends, a threshold could be defined to decide whether a product falls into one category or the other: for example, 90% or 80% of natural fibres to have to comply with the threshold for natural materials (hence if you have more 10% or 20% respectively of synthetics in a blended product, you would need to comply with the threshold for synthetic materials). Pilling results from fibres projecting from the fabric surface, entangling each other during wear/abrasion and forming a knot. Pilling is mainly influenced by the fibre twist, fibre length (staple) and construction of the fabric (stitch length or density of the fabric) and any finishes. Long-staple fibres typically pill less than short-staple fibres. The weaker and shorter the fibres, the easier pilling will occur. However, the weaker the fibres, the easier the knot will also break off. Natural fibres therefore have a higher tendency to form knots, but they can break off and leave the fabric "clean". Synthetics may resist pilling more, but the pilling will remain on the surface in the long run due to their strength. Fabrics (especially knits) consisting of synthetic staple fibres pose a high risk for pilling. Blended fabrics, consisting of a strong and a weak fibre, are the most problematic. The weak fibre can easily break and form a knot which will then be kept to the surface by the stronger fibre. For example, a poly-cotton blend may pill because the staple polyester pills but the cotton does not; however, the pill remains attached to the fabric due to the strength of the polyester. All these considerations are not reflected in the current framework proposed in Table 44. Synthetic fibres often have better colour fastness compared to natural fibres. Cotton may require special treatments to improve its colour fastness, especially to washing and light exposure. Wool naturally has good colour retention properties but may still require treatments for optimal fastness. Hence we also believe that a different threshold should be proposed for natural and synthetics when assessing appearance after washing with ISO 15487 related to all different aspects to visually inspect. In conclusion, synthetic fibres may more easily pass the threshold of possible future requirements on physical durability. If the same threshold is set for natural and synthetic materials, there will be a race to the bottom to find a threshold that is low enough to push the performance (and hence the cost) of natural materials, without really pushing for better synthetics – with polyester remaining the cheapest fibre. It is reasonable to suppose that companies will look for the easiest and cheapest solution to implement ecodesign requirements since they will most probably face increased costs of production due to the EU legislation. Companies may be incentivised to increase the share of synthetic materials within their material basket to ensure compliance with physical durability requirements at a lower cost.
693	9.2.1.2 Natural vs synthetic fibres – duality or complexity?; 2863 - 2879	The debate "natural vs synthetic fibres" is brought up when discussing the physical durability aspects of textile products. While this is a relevant aspect to consider, we believe it is equally important to frame the discussion within the broader context of environmental impacts. This ensures a more balanced comparison, taking into account the lifecycle stages.

ID	Section & line	Comment
694	9.3.1.2; 2863-2879 and 2939	Setting fibre-neutral physical durability thresholds poses several issues: - To accommodate all fibres without excluding any group, the threshold would need to be set low enough for synthetic fibres to easily meet it, leading to a "race to the bottom" and offering no incentive for improvement in synthetics. - Natural fibres would find it more expensive to meet the minimum threshold compared to synthetics. - This approach could indirectly encourage the use of synthetics, making it cheaper for companies to comply with Ecodesign by using synthetic fibres. Although textile performance depends on various factors, natural and synthetic fibres perform differently in durability tests. Synthetic fibres generally have advantages due to their tensile strength and abrasion resistance, while natural fibres may require denser fabrics to achieve similar performance, which can increase costs. However, garments made from natural fibres often last longer, as consumers tend to value and care for them more. Further, garments made from natural fibres have a social benefit, as farming communities receive a livelihood, which is not the case for natural fibres. Therefore, it's crucial to set ecodesign requirements that ensure a minimum quality level for both natural and synthetic materials without unintentionally favouring synthetics or fibres that do not have a social benefit. Synthetic fibres like nylon and polyester have higher tensile strength and abrasion resistance compared to natural fibres like cotton and wool. However, fibre length and fabric construction also significantly affect abrasion resistance. If Table 44 is used for design requirements, we recommend setting separate thresholds for natural and synthetic fibres for properties like tensile strength, tear strength, bursting strength, and abrasion resistance. In conclusion, synthetic fibres are more likely to meet future durability thresholds easily. A single threshold for both fibre types would lower the performance (and cost) of natural fibres without encouraging improvements in synthetics. This could lead companies to opt for cheaper synthetic materials to meet Ecodesign requirements, driving up the use of synthetics in the market.
695	9.2.1.2.; 2863-2879	The differentiation between natural and synthetic fibres is insufficiently differentiated here. In addition, mixtures are generally not discussed here, which can have significantly better longevity properties when synthetic and natural fibres are mixed. An important industry that demonstrates this very well is leasing providers in the laundry industry, where a mixture of cotton and polyester is often used to ensure the increased washing cycles and to increase the longevity of the products. Fibre differentiation should not be based on the same evaluation parameters, as they have completely different properties that cannot be easily superimposed. It is also important that blends can increase potential longevity requirements. Objective scientific consideration is lacking here.
697	9.2.1.2; 2863-2879, 2939	Pilling results from fibres projecting from the fabric surface, entangling each other during wear/abrasion and forming a knot. Pilling is mainly influenced by the fibre twist, fibre length (staple) and construction of the fabric (stitch length or density of the fabric) and any finishes. Long-staple fibres typically pill less than short-staple fibres. The weaker and shorter the fibres, the easier pilling will occur. However, the weaker the fibres, the easier the knot will also break off. Natural fibres therefore have a higher tendency to form knots, but they can break off and leave the fabric “clean”. Synthetics may resist pilling more, but the pilling will remain on the surface in the long run due to their strength. Fabrics (especially knits) consisting of synthetic staple fibres pose a high risk for pilling. Blended fabrics, consisting of a strong and a weak fibre, are the most problematic. The weak fibre can easily break and form a knot

ID	Section & line	Comment
		which will then be kept to the surface by the stronger fibre. For example, a poly-cotton blend may pill because the staple polyester pills but the cotton does not; however, the pill remains attached to the fabric due to the strength of the polyester. All these considerations are not reflected in the current framework proposed in the PS and Table 44 to assess the propensity to pilling. Synthetic fibres often have better colour fastness compared to natural fibres. Cotton may require special treatments to improve its colour fastness, especially to washing and light exposure. Wool naturally has good colour retention properties but may still require treatments for optimal fastness. Hence we also believe that a different threshold should be proposed for natural and synthetics when assessing appearance after washing with ISO 15487 related to all different aspects to visually inspect. In conclusion, synthetic fibres may more easily pass the threshold of possible future requirements on physical durability. If the same threshold is set for natural and synthetic materials, there will be a race to the bottom to find a threshold that is low enough to push the performance (and hence the cost) of natural materials, without really pushing for better synthetics – with polyester remaining the cheapest fibre. It is reasonable to suppose that companies will look for the easiest and cheapest solution to implement ecodesign requirements since they will most probably face increased costs of production due to the EU legislation. Companies may be incentivised to increase the share of synthetic materials within their material basket to ensure compliance with physical durability requirements at a lower cost.
699	Chapter 9; 2863	Is the description of physical durability on fiber, material or garment? It is important to exactly mention the issues per stage: raw material production, fabric production, garment production. The way it has been mentioned in the text will not sustain. In the raw material stage measuring only physical durability as we currently do, will always rate PE better then CO. Fabric production and garment production do have other challenges as you mention in the text that do not link directly on material.. Physical durability should be measured on fabric production (eg. tensile strenght, colour fastness if fabric dyed) as well as garment production (eg seam slippage, twist and garment dyed). Depending on eg dyeing proces it should also be measured on fiber level. If we do not take this complexity in account we will nog be able to score in a fair way.
701	9.2.1.2; 2864-2871	Durability and comfort must go hand in hand. The important thing is that we are constantly improving. It is unfair to compare different material choices against each other. Since almost everyone is needed due to different functions and comfort. One would also like to see clarity about fossil fuels and one should think about phasing out or recycling around this. And then how important it is with the renewable raw materials such as cotton, hemp, linen, viscose, etc.
702	9.2.1.2; 2864	The analysis should further elaborate on the role of synthetic fibers in the fast fashion business model, and how their stronger physical durability may be trumped by emotional durability considerations. As reported by the [...], synthetic fibres derived from fossil fuels have become the dominant choice for both the fashion and wider textile industries, due to lower costs and perceived durability compared to natural fibres like cotton. This has contributed to

ID	Section & line	Comment
		saturate the market with cheap clothing, fueling fast fashion. It is important that these considerations are taken into account when developing the methodology to assess physical durability, especially when this is done with a fiber-neutral approach, which may disadvantage natural fibres.
703	9.2.1.2 (page 106); 2864-2871	In general, when evaluating the durability aspects of textiles, it is crucial to compare identical or, at the very least, highly similar fabric constructions under controlled conditions, such as consistent humidity and temperature. Ensuring a fair and accurate comparison requires that we 'compare apples to apples,' avoiding misleading conclusions that may arise from evaluating fundamentally different materials or conditions. 2868-2871: The assumption that the physical durability of polyester can be matched by tighter and more compact cotton constructions is problematic, as it overlooks important factors such as fabric haptics and wearer comfort. Additionally, the notion that each fiber or fiber blend is strictly designated for a specific application is not entirely accurate—many products allow for various fiber and blend options. Imposing higher thresholds for physical durability risks disproportionately favoring certain fiber types, potentially limiting material choices and design flexibility.
704	9.2.1.2; 2867	In this section, the characteristics of natural and synthetic fibres are discussed. We would find it important here to mention the use of GMO cotton designed to have higher durability. While it may therefore lead to higher durability, it should not “score higher” overall in the delegated act. The use of GMO cotton has adverse impacts, as the European Parliament identified in a 2023 resolution (P9_TA(2023)0202) stating that GM cotton “is designed to be treated with glufosinate based herbicides, thereby increasing the exposure of workers and the environment in third countries; whereas the risk of increased worker and environmental exposure is of particular concern in relation to herbicide-tolerant GM crops, given the higher volumes of herbicides used”.
705	9.2.1.2; 2867	In this section, the characteristics of natural and synthetic fibres are discussed. We would find it important here to mention the use of GMO cotton designed to have higher durability. While it may therefore lead to higher durability, it should not “score higher” overall in the delegated act. The use of GMO cotton has adverse impacts, as the European Parliament identified in a 2023 resolution (P9_TA(2023)0202) stating that GM cotton “is designed to be treated with glufosinate based herbicides, thereby increasing the exposure of workers and the environment in third countries; whereas the risk of increased worker and environmental exposure is of particular concern in relation to herbicide-tolerant GM crops, given the higher volumes of herbicides used”.
706	9.2.1.2; 2867	In this section, the characteristics of natural and synthetic fibres are discussed. We would find it important here to mention the use of GMO cotton designed to have higher durability. While it may therefore lead to higher durability, it should not “score higher” overall in the delegated act. The use of GMO cotton has adverse impacts, as the European Parliament identified in a 2023 resolution (P9_TA(2023)0202) stating that GM cotton “is designed to be treated with glufosinate based herbicides, thereby increasing the exposure of workers and the environment in third countries; whereas the risk of increased worker and environmental exposure is of particular concern in relation to herbicide-tolerant GM crops, given the higher volumes of herbicides used”.
707	9.2.1.2; 2867	In this section, the characteristics of natural and synthetic fibres are discussed. We would find it important here to mention the use of GMO cotton designed to have higher durability. While it may therefore lead to higher durability, it should not “score higher” overall in the delegated act. The use of GMO cotton has adverse impacts, as the European Parliament identified in a 2023 resolution (P9_TA(2023)0202) stating that GM cotton “is designed to be treated with glufosinate based herbicides, thereby increasing the exposure of workers and the environment in third countries; whereas the risk of increased worker and environmental exposure is of particular concern in relation to herbicide-tolerant GM crops, given the higher volumes of herbicides used”.
708	Chapter 9; 2873	Is quality really still that important for users when it comes to fast fashion? Rephrase and mention the declining importance of quality due to fast fashion.
709	9.2.1.2; 2877	Clarification is needed on what is meant by chemical. This could be replaced by “man-made”.
710	9.2.1.2; 2877	Clarification is needed on what is meant by chemical. This could be replaced by “man-made”.
711	9.2.1.2; 2877	Clarification is needed on what is meant with chemical. Better replace with “man-made”
715	9.2.1.3; 2880	Durability of products is the single most important factor determining the environmental footprint. Sound metrics for the 'how long before a consumer replaces a good because it can no longer fulfill its function and becomes waste' are therefore of capital importance. The metrics applied by the Apparel & Footwear PEFCR should not be taken as a model due to intrinsic flaws described in a Joint Statement undersigned by 20 organisations: https://euroleather.com/images/2024-06-Joint-Statement-on-Durability-COTANCE-CEC-IFF-IWTO_30125.pdf
717	9.2.1.3; 2880	Durability should be the priority requirement for textiles.

ID	Section & line	Comment
		The End-of-life causes study should be strong and robust as it is a pillar of the methodology to measure durability. The methodology should include a ponderate and critical test linked to associated end-of-life causes. To be based on the number of washes linked to the defined test types and most common failure modes.This is in line with the PEFCR and DURHABI methodologies. Should include a performance scale related to the markets to identify products with better durability results. Should focus on Intrinsic durability only, as it is inherent to the product and can be clearly evaluated. At the moment, there is no sufficient evidence available to set efficient extrinsic durability criteria.
718	9.2.1.3.; 2880-2893	When considering the evaluation of physical durability, the business model must also be defined in order to be able to draw a clear distinction between fast and ultra-fast fashion. The different motivations of these suppliers are not included in the evaluation, but they are important to consider alongside the internal quality standards. A statement, for example, in the textile labelling; how the product retains its shape when washed properly would be a concrete step, also to give end consumers an indication of the company's internal quality parameters. The factors mentioned are relevant for the ageing of textiles, but will not be considered in the further course of the study. The focus is only on washing, but this factor on its own does not represent the ageing and use phase of textiles. […]has generated a survey amongst their members in 2025 showing that this topic is far more complex, many of the companies for example carry out wearing tests in addition to other measurements for certain products, but it is important to understand that this is done on a risk-based approach by using long term experience and knowledge.
719	9.2.1.3; 2880- 2934	The JRC proposed references regarding durability fall far short of the standards expected for scientific work intended to shape policy recommendations. The setting of durability requirements should aim at ensuring scalability, affordability, and efficiency to avoid over-extensive testing and, for this, they should be based on the most common causes of apparel failure ("failure modes"), as listed by the JRC in table 43. Additionally, there appears to be an inconsistency between the research findings and the proposed outcomes. The research highlights that factors such as the technology of the fabric, fibre type, yarn construction, fabric construction, and fabric finishing all influence the overall durability of materials and garments. Some factors are important for setting minimum requirements in task 6 and the technology of the fabric is relevant for clearly defining category descriptions, key parameters, and test methods in table 44. However, these critical nuances do not seem to be reflected in the conclusions included in Task 4 regarding product categorization or parameters. We recommend that the JRC provide clearer guidance on how relevant durability aspects are reflected within the durability framework. At present, the technology of the fabric and product functions are not sufficiently recognised. However, standardisation and simplicity should remain priority. To this end, key elements such as fibre type, fabric construction, fabric finishing/surface treatment, its placing (lining or outer fabric) and intended function (e.g., sportswear versus non-sportswear) should be incorporated.
720	9.2.1.3 How to assess physical durability; 2,880 ff.	Table 43 (line 2,894): There are relevant testing parameters missing: determination of spirality after laundering (ISO 16322-3) and the colour fastness to artificial light (ISO 105-B02). The spirality is further important also with regard to the dimensional stability especially when there is shrinkage in length direction. The colour fastness to artificial light is also addressed in the cited source of Cooper and Claxton (2022) as well as Annis (2012). It is a part of

ID	Section & line	Comment
		the colour fading which is the second most important type of failure (Cooper and Claxton, 2022, p.4). Line 2,901 ff.: For the simulation of aging only the cleaning cycles are further taken into account. However, for considering external factors also the function and comfort are crucial. Focussing only on physical durability gives the impression that synthetic fibers are preferred by the Task 4 criteria, although it has been proven that they can only meet moisture man-agement requirements with the help of complex finishing. Natural fibres on the other hand will not be able to achieve the same performances (when product construction is the same) with regards to physical durability. However, cotton for example has advantages in terms of wearing comfort (moisture management, skin sensation) heavily influencing durability in terms of the use phase. Not considering these aspects will lead to a distortion of the definition of durability. The claimed "fibre-neutral" approach is not fibre-neutral as it favours one kind of fibre based on the physical parameters. Table 44 (line 2,939): In order to define the base case for durability the assessment of the ageing of a product is reasonable. To define this base case (and BAT, BNAT) "characteristics of a new item" were taken as a basis to calculate the performance decrease after aging. However, these values were solely based on the experience of AITEX (line 2,900). A proper and transparent data collection for these starting values is needed as the developed base case should resemble "a description of existing products" (MEErP, 2011, p.17). If it is not possible to define one real product, "average sales-weighted characteristics of all technologies around" (MEErP, 2011, p.17) should be used. It does not become clear if this kind of data collection was performed. It seems there is no adequate scientific basis for the values mentioned in the column "characteristics of the new product" (line 2,939). For example, for the tensile strength of trousers table 44 suggests >=160N respectively >=120N. OVAM (2021) proposes >=180N (normal fit), >=200N (slim fit) and >=300N (premium) (https://circulareconomy.europa.eu/platform/sites/default/files/ecodesign_criteria_for_consumer_textiles.pdf). Whereas the value chosen by JRC is lower than proposed in the litera-ture, in other cases, e.g. abrasion resistance for shirts, the value is higher than reported in the literature. We therefore expect the JRC to discuss and justify the proposed values. Also, the selected standards for some key parameters differ from other standards found and used in literature and industry.
721	9.2.1.3 How to assess physical durability; 2,880 ff.	The standard ISO 6330 named for washing is inadequate as it indicates the use of the Wasca-tor. Also, aspects like wash load, ballasts and selection of detergent would need to be adjusted and defined for durability tests. Table 44 indicates that the washing treatment according to label is selected. Washing treatment according to label can only be considered if there are mandatory standards on how to determine care instruction. Otherwise companies could just soften their care instruction to reduce the performance decrease after the washing cycles. Line 2,983: Here it says that minimum values are assigned? Are the values in table 44 the minimum values for new items? Who can reliably name these values? Table 45 (line 3,009): It is unclear which value should be used for "value of the new item" as in the additionally given Q&A document it says that testing should be done before and after washing. Hence the new values tested deviate from the values mentioned in table 44 (line 2,939). Thereby the

ID	Section & line	Comment
		performance decrease is not considering a minimum requirement. This would mean products having insufficient values but only a small performance decrease could be categorised in group BAT or BNAT. Furthermore, the formula for the decrease of performance level for numerical test methods does not work for all mentioned test methods. Example: Given value of the new item: 160 N Tensile strength: (80N-160N): 160 N * 100 % = -50 % 240 N - 160 N : 160 N * 100 % = 50 % After washing the tensile strength will decrease this means the applicable force will be lower than for the new item. In this example it would be 80 N. Using the given formula the performance decrease would be -50%. Such a negative value for performance does not make sense. At 240 N the result would be 50% reduction in performance which is neither realistic nor logical. Dimensional change: (4,5 % - 3 5 %) : 3 % * 100 % = 50 % If the increasing value means a performance decrease the formula is applicable. Additionally, the weighting of the performance decrease is different for numerical and grading tests. The proposed stepwise decrease according to the grade presents a greater change in performance decrease than the calculation method of the numerical tests. Furthermore, the rounding to half or whole grades can make a huge difference in the calculation and also in the detectable visible pill formation. We acknowledge the need to use methods that are comparable and repeatable internationally. But we would like to point out, that the methods suggested for evaluating durability are very cost-intensive. We therefore suggest to also consider other, more cost-effective alterna-tives, that can deliver results of similar quality, especially for SMEs. [...] is realizing a research project focusing on ecodesign of textiles (research organisations: [...]). Within the research project the researchers started to investigate durability und possible minimum requirements with the help of a literature research on tests and standards. These standards with proposed values were summarized in value corridors. A questionnaire survey was then carried out with experts from the textile industry. On this basis, the most relevant tests for the sample products t-shirt, jeans and functional jacket were determined. Furthermore, practical tests on this basis were performed for t-shirts and also washing was used to simulate the use phase. The results of the current study can be made available soon to the JRC.
722	9.2.1.3; 2880	The assessment of physical durability has been evaluated by the DURHABI study directed by IFTH in France. It is a public study. The aims of this study were: - To develop a standardized method for the physical durability assessment of clothing

ID	Section & line	Comment
		(including casual and sportswear) and linen - To share the results with industrials, standardization organization (AFNOR/BNITH), representative federations, eco-organism Refashion and the French Agency for Ecological Transition (ADEME). This study brought together 80 brands, textile experts and 3 independent textile laboratories. It was based on more than 350 references selected from our collections completed with an enlarged consumer's survey which gathered more than 47000 responses. The results coming from the 70 000 durability trials lead in standard laboratories provide a unique and robust database allowing the elaboration of specifications and recommendations for each of the 12 identified products' categories. The financial support from IFTH, Refashion and ADEME guarantee results free from all commercial pressures with the highest degree of professional integrity and the requisite technical competence.
723	9.2.1.3; 2880-2894	The selection of key parameters should not be done to all apparel but instead separately to different product categories. This is essential, as it is impossible to choose only a few parameters to cover all relevant quality aspect for all apparel, which would not lead to a sufficient minimum quality levels. We propose changing the 1. step of the methodology so, that for all product categories it is studied what are the most common failures specific to that product group. Only after this it is possible to identify relevant test methods. This modelling has been tested in below study, which shows that even though quality is a complex issue, the minimum physical durability criteria can be done but needs further studies for all product categories. Further, it should be noted that apparel for children vs. adults or basic apparel vs. outdoor apparel require very different quality levels. A Framework for studying physical garment durability. Guo et all 2024 https://www.sciencedirect.com/science/article/pii/S2666784324000780

ID	Section & line	Comment	
		Also this study supports this methodology: Ecodesign criteria for consumer textiles. Centexbel et all 2022 https://www.centexbel.be/en/news/ecodesign-criteria-consumer-textiles	
724	9.2.1.3; 2882	The factors mentioned are relevant for the ageing of textiles, but will not be considered in the further course of the study. The focus is only on washing, but this factor on its own does not represent the ageing and use phase of textiles. [...] has generated a survey amongst their members in 2025 showing that this topic is far more complex, many of the companies for example carry out wearing tests in addition to other measurements for certain products, but it is important to understand that this is done on a risk-based approach by using long term experience and knowledge.	
725	9.2.1.3; 2886-2894	The 5 step process proposed seems reasonable, however, the key parameters again fail to take into acocunt the potential failures for techincal textiles. E.g. in table 43 the main failure mode for fabrics is given as pilling, whereas this failure mode is almost never observed for membrane laminate fabrics. More research is reuqired to understand the key failure modes of different garment types, not solely based on the fibre and fabric construction.	
727	9.2.1.3; 2892-2896	Focus should be on main common failure modes. According to table 43, the key parameters included later in table 44 are based on the most common textile apparel failure modes analysed by Cooper and Claxton namely pilling, visual inspection, tensile strength, bursting strength, dimensional stability. However, table 43 does not specify if these failure modes apply to all product categories. This distinction is crucial for defining key parameters in table 44. Cooper and Claxton show that for woven products such as shirts, jeans, formal trousers and jackets, discoloration, colour change, fabric breakdown and holes in seams are the main failure issues. However, in the case of knitted products such as cardigans and t-shirts, the primary failure issues are pilling, colour fading, loss of dimensional stability and holes in seams. Based on these findings, which are also supported by our technical expertise, pilling for woven products should not considered a key parameter. The ecodesign requirements should be designed to maximise their effectiveness whilst ensuring a feasible and scalable framework. For that, they should be selected based on the most common causes of apparel failure. Based on Cooper and Claxton findings, these will be the key parameters based on the most common apparel failures: dimensional stability (ISO 5077), fabric breakdown (evaluate with tensile strength (ISO 13934-2) for woven products and bursting resistance (ISO 13938-2) for knitted products), pilling for knitted products (ISO 12945-1) and colour changes/appearance in general after washes (ISO 15487). It is important to note that the ISO 15487 (appearance after wash) assess different aspects like colour change but also appearance (buttons, zippers, etc.). If referring to ISO 15487 it needs to be made clear which clauses are relevant to assess for the purpose of durability connected to the main failure modes.	
730	1.2.1.3 (Task 4); Table 4	The table and text claims that pilling is the most frequent reason for garment disposal. This isn't what the Cooper and Claxton paper they refer to actually says. In fact it says "The most common related to colour fading (particularly for jersey and woven fabrics) and pilling of knitwear and jersey items". Note for pilling it is only true for knitwear and jersey (a type of knit). This misunderstanding has led to the durability tests requiring pilling tests for all garment types, even garments such as jeans that do not pill. Pilling is only a problem with certain garment types - not all.	
731	9.2.1.3; Table 43 Line 2894	The basis for the test list is unclear. JRC should provide data justifying how these characteristics were selected for durability and their link to garment disposal. The report cites AITEX's experience but lacks supporting data or publications. Can AITEX's documentation and tests be accessed? It is unclear why more companies and industry perspectives were not considered regarding product failures, quality, and durability testing.	
732	9.2.1.3; 2894 Table 43	It is not clear how the test list was determined. The JRC is asked to show the data that explains how these characteristics were chosen as the ones that most influence durability and how they are related to the disposal of garments. It is stated that "The characteristics of the new item were identified based on AITEX's experience in testing textile products" but there are no data or publications to support them.	
733	9.2.1.3; 2894, 2939 Tables 43 and 44	The ecodesign requirements for physical durability	The ecodesign requirements for physical durability should be designed to ensure minimum product quality on the market within a feasible and scalable framework. To that end, apparel quality experts from the industry identify the following core physical durability characteristics that have to be tested for apparel:

ID	Section & line	Comment	
		should be designed to ensure minimum product quality on the market within a feasible and scalable framework. To that end, apparel quality experts from the industry identify the following core physical durability characteristics that have to be tested for apparel: Pilling (Circular knit) - ISO 12945-2 - For circular knit fabrics. Pilling (Flat knit) - ISO 12945-1- For flat knit fabric. Tear strength - ISO 13937-1 - For woven fabrics – Elmendorf. Bursting strength - ISO 13938-1 or ISO 13938-2 - For knit fabrics. Shrinkage (as part of dimensional stability) - ISO 3759/ISO 6330 – All. Appearance of apparel after domestic washing and drying - ISO 15487. 1. Pilling and fuzzing - ISO 15487/Visual – All.	Pilling (Circular knit) - ISO 12945-2 - For circular knit fabrics. Pilling (Flat knit) - ISO 12945-1- For flat knit fabric. Tear strength - ISO 13937-1 - For woven fabrics – Elmendorf. Bursting strength - ISO 13938-1 or ISO 13938-2 - For knit fabrics. Shrinkage (as part of dimensional stability) - ISO 3759/ISO 6330 – All. Appearance of apparel after domestic washing and drying - ISO 15487. 1. Pilling and fuzzing - ISO 15487/Visual – All. 2. Spirality (as part of dimensional stability) - ISO 15487/ISO 16322-3 – All. 3. Colour (change, staining, printing pattern) - ISO 15487/ISO 105-A02/ISO 105-A03 – All. 4. Components (breakage, detachment, damage, colour change, fraying) - ISO 15487/Visual – All. For apparel which can only be drycleaned, we recommend dimensional stability (ISO 3175-1, ISO 5077). We will support the JRC with further details on the thresholds, based on the knowledge of textile quality experts from the industry. This test list offered as industry best practice is also supported by a study on the most common causes of apparel failure (Cooper and Claxton): dimensional stability, fabric breakdown, pilling and colour changes/appearance. It is important to note that the ISO 15487 (appearance after wash) assesses different aspects. To be even more precise, the most common failures could be assessed based on the specific product group.

ID	Section & line	Comment	
		2. Spirality (as part of dimensional stability) - ISO 15487/ISO 16322-3 – All. 3. Colour (change, staining, printing pattern) - ISO 15487/ISO 105-A02/ISO 105-A03 – All. 4. Components (breakage, detachment, damage, colour change, fraying) - ISO 15487/Visual – All. For apparel which can only be drycleaned, we recommend dimensional stability (ISO 3175-1, ISO 5077). We will support the JRC with further details on the thresholds, based on the knowledge of textile quality experts from the industry. This test list offered as industry best practice is also supported by a study on the most common causes of apparel failure (Cooper and Claxton):	Relevant studies include: A Framework for studying physical garment durability. Guo et all 2024 https://www.sciencedirect.com/science/article/pii/S2666784324000780 Also this study supports this methodology: Ecodesign criteria for consumer textiles. Centexbel et all 2022 https://www.centexbel.be/en/news/ecodesign-criteria-consumer-textiles

ID	Section & line	Comment	
		dimensional stability, fabric breakdown, pilling and colour changes/appearance. It is important to note that the ISO 15487 (appearance after wash) assesses different aspects. To be even more precise, the most common failures could be assessed based on the specific product group. Relevant studies include: A Framework for studying physical garment durability. Guo et all 2024 https://www.sciencedirect.com/science/article/pii/S2666784324000780 Also this study supports this methodology: Ecodesign criteria for consumer textiles. Centexbel et all 2022 https://www.centexbel.be/en/news/ecodesign-criteria-consumer-textiles	
734	9.2.1; 2894, 939	The 'category descriptions from the perspective of physical durability' in table 44 (line 2939) must clearly reflect the technology of the fabric (knitted vs. woven) as this significantly impact 'Key Parameters (unit)', 'Test Methods', and ultimately the durability performance of the textile product. Unfortunately, the 'category descriptions' in table 44 are unclear and mix woven and knitted textile products. Further, table 44 does not clearly reflect the most common	

ID	Section & line	Comment
		textile apparel failure modes and associated testing parameters as reflected in table 43 (line 2894). We strongly recommend JRC to use below table instead of the current table 44. Below table merges ID #1-9 from table 44 into one 'Category Description' that clearly reflects the importance of the technology of the fabric (knitted vs. woven) to enhance clarity, reduce complexities, and minimize the risk of misinterpretations. The below table also includes the standard Test Methods to identify the most common failure modes, like it includes Test Methods for swimwear, socks, and products with functional claim ID Category description, Key Parameters (unit) and Test Method, Characteristics of the new product, Simulation of the ageing process 1 ID #1-9 (excluding socks) in table 44 (line 2939) For 'PU coated fabrics, only wash tests applies. Appearance After Wash (all textile products): ISO 15487: Method for assessing appearance of apparel and other textile end products after domestic washing and drying but only for the parameters related to durability and not for parameters related only to quality.

ID	Section & line	Comment
		From the JRCs Q&A, we understand that the characteristics of the new products are not minimum performance requirements and that these will be addressed in Task 6. If the Characteristics of the new product were JRCs recommendations for minimum performance requirements, these are unreasonably high and a significant number of textile products would not be able to meet these requirements, even if the products were produced solely with new synthetic virgin fibers – as the Characteristics of the new product are far from being 'fibre-neutral' as otherwise stated in line 2897-2900. When design options with potential market access values are being discussed in Task 6, we strongly recommend including the following factors in the discussion as these significantly impact the durability performance of a textile product: Materials composition (manmade vs. natural fibres) Mono vs. blends Surface treatment Weight (for woven products)

ID	Section & line	Comment
		Trade-offs with other product aspects (mainly recycled content and products that have been repaired, upgraded, refurbished or remanufactured). We strongly recommend applying 5 cleaning cycles to all product descriptions. For 'Jackets, and coats', 3 cleaning cycles. For "Dry clean only" products, 3 dry cleaning cycles. Our recommended number of cleaning cycles reflect that the purpose of the durability testing is to identify product failures, not to simulate the aging process. Dimensional Stability Shrinkage (all textile products): ISO 6330 for domestic washing and drying procedures for textile testing, or ISO 3175 for Professional care, dry-cleaning and wet cleaning, also according to the care label.

ID	Section & line	Comment
		ISO 5077 for the determination of dimensional change after washing and drying. Pilling (only knitted products): ISO 12945-1: Determination of fabric propensity to surface pilling, fuzzing, or matting. Part 1: Pilling box method. Fabric Tensile Strength (only woven products): ISO 13934-1 OR ISO 13934-2

ID	Section & line	Comment
		Fabric Bursting (only knitted products): ISO 13938-2 2 Swimwear All Key Parameters (unit) and Test Methods under ID #1 applies, excluding Pilling tests. In addtion, it is also important to test for colour change as swimwear must be able to withstand exposure to the various water influences:

ID	Section & line	Comment
		ISO 105-E03: Fastness to chlorinated water ISO 105-E04: Fastness to seawater 3 Socks All Key Parameters (unit) and Test Method under ID #1 applies, excluding Fabric Tensile Strength tests. In addition, it is also important to test for the determination of the abrasion resistance of knitted footwear garments: EN 13770 - method 1

ID	Section & line	Comment
		4 Additional tests to the general ones if a product has functional claims ISO 4920: Water repellency ISO 811: Water proofness ISO 9237: Wind proof
735	9.2.1.3; 2894-2895	The study from Cooper and Claxton (2022) "Garment failure causes and solutions: Slowing the cycles for circular fashion" provides important insights into garment failure in donated clothing. However, it is necessary to note the methodological limitations before using it as the scientific source for defining durability requirements. The study's findings are based on an analysis of 1,476 discarded garments that were donated to UK charities but deemed unsuitable for resale in the UK. Using such a narrow and potentially unrepresentative dataset to define the "most common textile failure modes" for all European apparel presents significant risks. A more comprehensive, regionally diverse, and methodologically robust dataset would have been preferred to establish durability requirements that reflect the reality.
736	9.2.1.3; 2894	According to the study, all failure parameters have the same impact on durability. However, different types of the failures should carry different weights in determining the overall durability performance. In our view, some critical parameters (that could be a reason for consumers to throw products) should have higher importance in the final notation (higher ponderation).

ID	Section & line	Comment
		The occurrence of failures is set up on a textile layer 1. We would like to question whether the textile layer 3 is included in the scope; and if so, the failures and occurrences should be different compared to what is proposed in table 43, especially when the garment has a zip. Garments with zippers are included under “trim failure”; however, the occurrence seems very low compared to what is observed on jackets layer 3. For instance, on the proofs of concept launched on repairs of textiles with more than 1200 repairs performed, damages coming from trim failures (sliders + zippers) represent more than 20% of the damages. Most common failures in table 43, are based on a study of Cooper and Claxton (2022). A deeper look at the study shows that it was performed on more than 1400 discarded garments donated to UK charities.The majority of discarded garments are tops (30%), thus their failures are overrepresented in the most common failures. According to the study,the failures were classified by independent researchers with a visual observation. It means that the failure cause is not linked to the consumer choice when discarding the garment. No consumer survey was realised in order to have a wider view on first results obtained. In addition, pilling and color fading represent the main occurrences on table 43; however, they are also the one most subjective from their analysis. We are wondering if there could be a misunderstanding between occurrence and importance of end of life cause. For instance, a sweatshirt might face some pilling early on without the customer noticing it and then get thrown away as soon as a hole appears. Therefore,while piling failures would occur more often, holes would eventually lead to the actual end of life of the product. PEFCR and DURHABI studies that are based on wider and stronger datasets, while taking into account the point mentioned above. We believe that the analysis of failure causes is the first milestone for a reliable study of the durability of a product. We are therefore not aligned with the proposed methodology, as we consider it biased and we fully rely on the PEFCR methodology.
737	9.2.1.3.; 2894	This study or statement of the figure is not sufficiently differentiated. Further parameters, e.g. product groups, material, fabric construction and care, must be taken into account.
738	9.2.1.3; 2894	This study or statement of the figure is not sufficiently differentiated. Further parameters, e.g. product groups, material, fabric construction and care, must be taken into account.
739	Chapter 9; 2894 & 3161	The functionality of the zippers are often the case to discard a product. Not considering the quality of zippers seems to be a lack in view on durability. Zippers are often a cause of short durability. Why standardize zippers? Better to have minimum requirements for zippers as we have for snap buttons for kids.
740	9.2.1.3 (page 107); 2894-2895	While the study "Garment failure causes and solutions: Slowing the cycles for circular fashion" provides valuable insights into garment failure in donated clothing, it is important to assess its methodological limitations before using it as a foundation for defining durability requirements in ESPR. The study's findings are based on an analysis of discarded garments that were donated to UK charities but deemed unsuitable for resale in the UK. Several key concerns must be considered: 1. Selection bias in donated clothing: When consumers donate clothing, they generally select items they still consider wearable and of acceptable quality. This means that the garments assessed in the study may not accurately reflect textiles that have truly "failed" in a durability sense. In contrast, clothing that is deemed unsuitable for donation—whether due to significant wear, irreparable damage, or obsolescence—may be more commonly disposed of

ID	Section & line	Comment
		through general waste streams. As a result, the dataset may exclude certain failure modes that are more representative of real-world wear and tear. 2. Lack of wear history data: The study does not provide information on how frequently these garments were worn before being discarded. Without understanding the usage patterns, it is difficult to determine whether a failure mode is a true durability issue or simply part of a normal garment lifecycle. For instance, loss of dimensional stability may not indicate premature failure but rather a natural progression after an extended number of wear and wash cycles. 3. Generalization risk: Using a study based on a narrow and potentially unrepresentative dataset to define the "most common textile failure modes" for all European apparel presents a significant risk of misinterpretation. A more comprehensive, regionally diverse, and methodologically robust dataset would be required to establish durability requirements that reflect real consumer experiences and textile performance. After reviewing the methodology and results of the cited publication, we find that its data and methods do not sufficiently support such definitive claims. It is generally accepted that policy-oriented recommendations are best founded on a robust body of evidence rather than a single source. For example, individual scientific articles have occasionally suggested that smoking could be beneficial, yet an overwhelming majority of studies confirm the adverse health effects of smoking. A single outlier study should therefore be weighed appropriately and contextualized with the wider scientific literature. We appreciate the JRC's position that providing alternative or "better" studies would strengthen any critique. However, in some instances, no such evidence currently exists. This does not justify relying on a single published source to draw definitive conclusions. In the absence of further research, it remains prudent to avoid sweeping assertions and to clearly acknowledge any uncertainties or limitations. Doing so helps ensure policymakers receive a balanced and accurate view of the available knowledge. Selected references on the risks of relying on a single study and the importance of comprehensive evidence: - Munafò MR, Nosek BA, Bishop DVM, Button KS, Chambers CD, du Sert NP, Simonsohn U, Wagenmakers EJ, Ware JJ, Ioannidis JPA. A manifesto for reproducible science. Nat Hum Behav. 2017 Jan 10;1(1):0021. doi: 10.1038/s41562-016-0021. PMID: 33954258; PMCID: PMC7610724.

ID	Section & line	Comment
		- Ioannidis JP. Why most published research findings are false. PLoS Med. 2005 Aug;2(8):e124. doi: 10.1371/journal.pmed.0020124. Epub 2005 Aug 30. Erratum in: PLoS Med. 2022 Aug 25;19(8):e1004085. doi: 10.1371/journal.pmed.1004085. PMID: 16060722; PMCID: PMC1182327. - Begley CG, Ioannidis JP. Reproducibility in science: improving the standard for basic and preclinical research. Circ Res. 2015 Jan 2;116(1):116-26. doi: 10.1161/CIRCRESAHA.114.303819. PMID: 25552691.
744	9.2.1.3 (page 107); 2896-2900	A reference to AITEX's knowledge alone does not constitute a scientific statement. In the first milestone, we provided not only insights based on our expertise but also factual data derived from internal systems. However, these were not considered sufficient, as they were not publicly available or formally published in a scientific manner. While we acknowledge this approach, we seek clarification on why AITEX is granted the status of an accepted reference, whereas other contributors—who also present reliable data and figures, rather than mere opinions—are not accorded the same recognition. It is important to recognize that the foundation being laid here will significantly shape policymaker perceptions and could, if not carefully considered, lead to the unintended displacement of high-quality products from the EU market or unjustly categorize them as undesirable. Such an outcome could have serious consequences for the European fiber and textile industry. We fully acknowledge the challenges posed by limited scientific evidence, which may necessitate reliance on sources that would not typically be preferred. However, in this context, we urge you to also consider the insights provided by the European industry, particularly when we present factual data that, even if unpublished, accurately reflects real market conditions. Unintentionally causing harm to this industry cannot be the objective of any EU initiative, and ensuring a balanced and well-informed approach is essential.
745	9.2.1.3; 2897-2898	While we understand the reasoning for taking a fibre neutral approach to durability requirements, we would like to caution against adopting durability requirements that indirectly would disadvantage natural fibres. Given that synthetic fibres are known to be more durable, taking the same approach to all fibres could lead to the unintended consequences of use of more synthetic materials in apparel production.
746	9.2.1.3; 2897-2898	Although this sentence mentions that the characteristics of the new fibre (minimum requirements) are fiber neutral, the framework defined on Table 44 does not specify thresholds by type of fiber because, as it is quoted in the document, textile apparel made of any type could meet the thresholds of the Table 44. Upon examining Table 44 and its thresholds, we can observe that while some thresholds align with international market practices and the average quality of a good product, others exceed market norms, setting very high standards. This is particularly demanding for garments made from certain blends, such as regenerated cellulosic fibers (viscose) or animal fibers like wool and cashmere, among others. For example, to achieve a grade≥ 4 in pilling for a sweater after 14400 cycles (ISO 12945-2), is unfeasible in a blend of wool with polyester for example, especially when the percentage of wool in the blend is higher than the synthetic fiber. And this situation would turn into more complicate when the percentage of recycles fibers in the garment is increased. Intrinsic properties will never be the same for all fibers. A procedure with very high thresholds or testing conditions might foster the use of some fibers over others.
747	9.2.1; 2897-2939	From the JRC's Q&A to the product aspect of durability, we understand that the 'Characteristics of the new product' in table 44 are not minimum performance requirements and that design options with potential market access values will be discussed in Task 6.

ID	Section & line	Comment
		If the 'Characteristics of the new product' in table 44 were JRCs recommendations for minimum performance requirements, these are set unreasonably high and a significant number of textile products would not be able to meet these requirements, even if the products were produced solely with new synthetic virgin fibers. The 'Characteristics of the new product' are therefore far from being 'fibre-neutral' as otherwise stated in line 2897-2900. For Task 6 and following above table, we strongly recommend JRC to focus the discussion of market access values on what the minimum requirements should be for ensuring 'the removal of the worst performing products from the market' (as stated in recital 24 of the ESPR as a key purpose of setting performance requirements). Setting lower requirements than current ones in table 44 (under 'Characteristics of the new product') will not mean low quality, but 'high and realistic' quality requirements. For Task 6 and following above table, we strongly recommend JRC to include the following factors in the discussion as they significantly impact the durability performance of the textile product: Materials composition: Manmade vs. natural fibres, and Mono vs. blends materials Surface treatment (without vs. with surface treatment as for example raised, brushing, and peach) Weight (for woven products) Trade-offs with other product aspects (mainly recycled content and products that have been repaired, upgraded, refurbished or remanufactured).

ID	Section & line	Comment
		Going forward, we recommend considering a 'basic level' to form the minimum performance requirement level in ESPR, while a 'moderate' and an 'aspirational' level can be applied 1) to certification schemes showing exceptional performance on durability and 2) to a fee modulation criterion for durability in an implementing act under the Waste Framework Directive (Article 22c 4). This will ensure legislative coherence, complementarity, and consistency, as well as a clear distinction between mandatory and voluntary requirements (Section 9.2.1.4. Line 2939. Heading 'Description of product technologies per category'. Topic 'Table 44 – too high requirements'). The number of cleaning cycles in table 44 are unnecessarily high for all categories and not useful for setting minimum market access requirement in the ESPR. Most failures will have appeared after 3-5 cycles. The purpose of the durability testing is to identify product failures, not to simulate the aging process. The use of this term seems to be an error of applying the Methodology for Eco-design of Energy-related Products (MEErP) to textile products. Furthermore, the standard Test Methods and the high number of cleaning cycles in table 44 do not account for the use-phase, why garments that are washed without wear-testing are more prone to failing than a garment that is wear-tested, as it is not exposed to perspiration and moisture over time. This will be significantly enhanced by the high number of cleaning cycles in table 44. The exposure to perspiration and moisture over time keeps the quality of the fabric. This is especially the case for natural fibers (in the table below we have included a washing test of a t-shirt (see 9.2.1.3 'How to assess physical durability')). We strongly recommend applying 5 washing cycles to all product categories. Though for 'Jackets and coats', 3 cleaning cycles, and 3 dry cleaning cycles for "dry clean only" products. (Section 9.2.1.3. Line 2939. Heading 'How to assess physical durability'. Topic 'Table 44 – wear significantly impacts the durability of a textile apparel product').
748	9.2.1; 2897-2939	Further, we strongly recommend JRC to: Consult leading quality experts such as The Apparel and Footwear Quality Association (AFQA, an organization modeled on the AFIRM Group, see afqa.org), and Dr. Mark Taylor (Leeds University) to provide input to the product description from the perspective of physical durability and to Task 6 and the discussion of design options with potential market access values. Using AITEX, which does not work with testing of fashion products, as the sole source is insufficient for providing evidence-based scientific support to the European policymaking process (Section 9.2.1.4. Line 2939. Heading 'Description of product technologies per category'. Topic 'Table 44 – too high requirements'). Apply a risk-based testing approach like the approach known from REACH and The General Product Safety Regulation. Testing all products will have severe

ID	Section & line	Comment
		negative impacts on the environment, on costs, and on lead times as it will result in bottlenecks and the destruction of the significant number of tested products (Section 9.2.1.4. Line 2939. Heading 'Description Be explicit on what will happen if a product fails a durability requirement. Today, a fail leads to a dialogue between the brand and the manufacturer on the specific test report to assess if the specific fail impact the consumer's use, feel, and wear. This nuanced approach ensures an assessment of the actual severity of the fail (Section 9.2.1.4. Line 2939. Heading 'Description of product technologies per category'. Topic 'Table 44 – too high requirements').
749	9.2.1.3; Page 107, line 2897 + Table 44	[...] would recommend the JRC to further substantiate the current suggested test list in Table 44. We believe that a fiber-neutral approach will in many cases inappropriately favor synthetic fibers and therefore we suggest that the minimum values are fiber-specific.
751	9.2.1.3; 2897-2898	Need for thresholds that do not discriminate certain fibres. Although this sentence mentions that the characteristics of the new fibre (minimum requirements) are fibre neutral, the framework defined on Table 44 does not specify thresholds by type of fibre because, as it is quotes in the document, textile apparel made of any type could meet the thresholds of the table 44 (line 2939). Upon examining table 44 and its thresholds, we can observe that while some thresholds align with international market practices and the average quality of a good product, others exceed market norms, setting very high standards (please see below comments for specific examples). This is particularly demanding for garments made from certain blends, such as regenerated cellulosic fibres (viscose) or animal fibres like wool and cashmere, among others. For example, to achieve a grade≥ 4 in pilling for a sweater after 14400 cycles (ISO 12945-2), is unfeasible in a blend of wool with polyester for example, especially when the percentage of wool in the blend is higher than the synthetic fibre. And this situation would turn into more complicate when the percentage of recycles fibres in the garment is increased. This approach, whereby thresholds do not discriminate between fibres ("fibre-neutral" approach), was also taken into in the physical durability of the PEFCR. At the beginning this procedure set requirements for certain fibre types (animal fibres as wool, cashmere, mohair, or regenerated cellulosic fibres as viscose). After discussions, the approach was to define thresholds that were achievable for any type of fibre in order not to discriminate them against other more resistant fibres as synthetics. The solution was to reduce the thresholds to facilitate the use of these fibres and avoid overly complicating the procedure. We think that this approach should be considered since the intrinsic properties of these fibres will never be the same as others as synthetic fibres. A procedure with very high thresholds or testing conditions might foster the use of synthetic fibres over the natural ones. Furthermore, specific thresholds with lower requirements could be implemented for certain fibres without excessively complicating the procedure.
752	Chapter 9; 2897-2900	Which Thresholds? Please clarify.
755	9.2.1.3; 2900	AITEX is a spain organism. Why the analyse did not take in account other European organism as IFTH in France ?
756	9.2.1.3; 2901-2908	There is still the element of the 'use phase' which is not well represented in the aging methodology. The use phase impacts the stability, twist and shape of the garment. In addition, body odour, sweat, skin secretions, perfumes, deodorants, staining, storage, etc all impact the product, including the relationship of the user with the product. Any discoloration or smell can shorten the life of the product with the user. Until a suitable test methodology can represent this part, (Ideally in the future BAT) the process is just washing and drying.
757	9.2.1.3; 2901 and Table 44	Although washing may be an adequate simulation for wear and tear for many garment categories, it is not the primary interaction leading to wear or failure for technical garments. In particular, the simulation of aging for the category, jackets and coats, requires testing after 3 cleaning cycles. This number of cycles is diverging from the 5 proposed in other regulation documents, and in both cases, based on preliminary testing conducted in the Durability Project at [...], will not result in the ability to meaningfully differentiate between the majority of products in the technical garment category. The testing protocol requiring visual inspection is also potentially lacking in ability to meaningfully differentiate between products that do not, for example,

ID	Section & line	Comment
		expect to show pilling, dimensional change and colour change through washing. Visual inspection can not be relied on, for instance to assess water repellency.
758	9.2.1.3; 2901-2910	The aging simulation focuses solely on washing cycles, ignoring key factors like wear, drying, and ironing, which significantly impact durability. A realistic approach should reflect actual consumer behaviour, following care labels. Drying, in particular, affects wear more than washing, while ironing stabilizes garments. JRC should adopt proportional assessments based on fibre type and ensure a comprehensive durability analysis with clear metrics. Reanalysing all parameters after aging is unnecessary, as ISO standards already assess key aspects like dimensional change and appearance after repeated cleaning cycles. Testing should be limited to these parameters.
759	9.2.1.3; 2901-2907	It is not clear how the washing cycles in the aging process were defined per type of product. The JRC is asked to share the background data of AITEX, so that it can be reviewed and validated by the industry. We also note that washing as aging parameter may not be relevant to all product groups, for example outdoor jackets or wool garments that does not necessarily need to be washed that often during its lifetime.
760	9.2.1.3; 2901-2905	The aging simulation only considers washing cycles. The care instructions given on the textiles provide the end user with precise instructions on how to care for the products. If these instructions are followed, the impact by washing alone is not the decisive factor. This approach ignores other critical factors such as the daily wear and maintenance. Additionally, the process should follow customer behaviour where the washing, the drying and ironing are carried out as per the care label. This approach would allow to more accurately simulate real-life conditions and everyday user activities within their homes. The drying process is a crucial factor in garment care, as it significantly impacts wear and tear, even more so than washing. Additionally, ironing plays an important role in stabilizing the garment after washing and drying. Therefore, it is essential to implement an aging process that closely replicates real-life scenarios and customer behaviour. A survey by the [...] amongst their members in 2025, which can be shared upon request, clearly shows that companies pay attention to other criteria as well, as for example to wearing tests. 'Aging' should generally be defined differently, considered from various perspectives and a risk-based approach added to the assessment. A more comprehensive methodology would improve the validity of the results. We ask the JRC to adopt proportional assessments based on specific fiber criteria. Include detailed metrics to ensure accurate and comprehensive durability analysis.
761	9.2.1.3; 2901-2908	There is still the element of the 'use phase' which is not well represented in the aging methodology. The use phase impacts the stability, twist and shape of the garment. In addition, body odour, sweat, skin secretions, perfumes, deodorants, staining, storage, etc. all impact the product, including the relationship of the user with the product. Any discoloration or smell can shorten the life of the product with the user. Until a suitable test methodology can represent this part, (Ideally in the future BAT) the process is just washing and drying.
762	9.2.1.3.; 2901 ff	The care instructions given on the textiles provide the end user with precise instructions on how to care for the products. If these instructions are followed, the impact by washing alone is not the decisive factor. The actual usage phase and the usage parameters are much more significant. A survey by the [...] amongst their members in 2025 clearly shows that companies pay attention to other criteria as well, as for example to wearing tests. 'ageing' should generally be defined differently, considered from various perspectives and a risk-based approach added to the assessment.
763	9.2.1.2; 2901-2908	There are still elements of the 'use phase' which are not well represented in the aging methodology. The use phase impacts the stability, twist and shape of the garment. In addition, body odour, sweat, skin secretions, perfumes, deodorants, staining, storage, etc all impact the product, including the relationship of the user with the product. Any discoloration or smell can shorten the life of the product with the user. Until a suitable test methodology can represent this part, (ideally in the future BAT) the process is just washing and drying.
764	9.2.1.3; 2901 ff	The care instructions given on the textiles provide the end user with precise instructions on how to care for the products. If these instructions are followed, the impact by washing alone is not the decisive factor. The actual usage phase and the usage parameters are much more significant. A survey by the [...]

ID	Section & line	Comment
		amongst their members in 2025 clearly shows that companies pay attention to other criteria as well, as for example to wearing tests. 'Ageing' should generally be defined differently, considered from various perspectives and a risk-based approach added to the assessment.
770	9.2.1.3; 2903-2904	Procedure to evaluate aging. We disagree with only considering washing and not drying and ironing in the aging process. We think that the procedure to evaluate the aging should follow faithfully the customer behaviour where both the washing, the drying and ironing are carried out as per the care label. This approach allows us to more accurately simulate real-life conditions and everyday user activities within their homes. The drying process is a crucial factor in garment care, as it significantly impacts wear and tear, even more so than washing. Additionally, ironing plays an important role in stabilizing the garment after washing and drying. Therefore, it is essential to implement an aging process that closely replicates real-life scenarios and customer behaviour.
772	9.2.1.3 (page 107); 2905	Neuß and Schlich (2019) conducted studies focusing on denim fabrics, which exhibit unique aging characteristics. Consequently, applying their findings universally across all product types may not be appropriate.
773	9.2.1.3; 2907	With the DURHABI study, the [...] determined the relevance of the number of washes cycles to simulate the ageing process. It was determined by real analysis on textile products.
774	9.2.1.3; 2909-2910	The need to reanalyse all parameters after the aging process is a critical point affecting the applicability and affordability of the proposal. This is not the approach that the industry has taken over the years to assess the durability of the garments. It is not reasonable to analyse all parameters since dimensional change or appearance are already analysed after repeated cleaning cycles following their international ISO standards. Additionally, ISO 15487 itself verifies the effects on different parameters after cleaning cycles. Analysis after cleaning cycles is not necessary for all the tests and should be limited to dimensional change and appearance, following their respective ISO standards.
775	9.2.1.3; 2909	In this paragraph, durability is calculated by comparing performances between new (or after 1 washing cycle) and those subjected to 20/30 washing cycles. The PEF & Durhabi methodology, however, takes a different approach by providing a durability index based on the IQM of the product. This index is based on tests performed both on non-washed or washed finished goods. The PEF & Durhabi methodology would thus form a good basis for classes of performance - allowing for comparison of products' durability performance within the market. In the methodology proposed by JRC, failures are the same for all product categories and the function of garments is not considered. The only difference highlighted in the study is made on woven and knitted products. On the other hand, the PEF/Durhabi study provides this differentiation based on the function of the garment. To conclude, this sentence highlights that, in the document, the physical durability assessment is linked to product performance-loss only. Some inputs seem to miss such as thresholds, ponderation, criticality of some key parameters, and how the customers are going to understand those grades as there is no equivalent notation scale on the market.
777	9.2.1.3; 2909-2912	The need to reanalyse all parameters after the aging process is a critical point affecting the applicability and affordability of the proposal. This is not the approach that the industry has taken over the years to assess the durability of the garments. It is not reasonable to analyse all parameters since dimensional change or appearance are already analyse after repeated cleaning cycles following their international ISO standards. Additionally, ISO 15487:2018 itself verifies the effects of parameters like pilling after cleaning cycles and evaluates the appearance of seams where their integrity can be assessed. So that, reanalysis after cleaning cycles is not necessary for all the tests and should be limited to dimensional change and appearance, following their respective ISO standards. This approach is applied by the physical durability procedure of the PEFCR. In the methodology proposed by JRC, failures are the same for all product categories and the function of garments is not considered. This approach will not improve durability performance and does not align with industry's longstanding pass/fail method. Defining performance as a percentage doesn't allow to establish a level playing field, as it rewards the degree of decrease rather than the actual performance of the product. As a result, a product with a lower decrease but worse final performance might be considered "more durable," which may not accurately reflect its true durability To conclude, this sentence highlights that, in the document, the physical durability assessment is linked to product performance-loss only. Some inputs

ID	Section & line	Comment
		seem to miss such as thresholds, ponderation, criticality of some key parameters, and how the customers are going to understand those grades as there is no equivalent notation scale on the market.
780	9.2.1.3; 2910-2916	The proposed percentage-based performance evaluation is flawed, as it rewards reduction rather than actual durability, potentially misrepresenting product quality. Additionally, the high number of washing cycles lacks data-driven justification. The claim that AITEX's experience validated this approach is insufficient—JRC should provide the supporting data for industry review.
781	9.2.1.3; 2910-2912	This approach will not improve durability performance and does not align with the industry's longstanding pass/fail method, and it not correct due to different reasons: 1) the loss is probably not linear, 2) a low-quality product is classified as good if it does not get worse after washing?, 3) it is not clear how the formula fits the different evaluation schemes and grids of test methods and their results, see as well comment 3009. Defining performance as a percentage doesn't allow to establish a level playing field, as it rewards the degree of decrease rather than the actual performance of the product. As a result, a product with a lower decrease but worse final performance might be considered "more durable," which may not accurately reflect its true durability. Also linked to the trade-offs between different criteria is the element that eventual degrading due to content of recycled material (mechanically recycled) can occur that would be negative compared to a product made with only virgin material.
786	9.2.1.3.; 2911 ff	seems not the correct way of calculating due to different reasons: 1) the loss is probably not linear, 2) a low-quality product is classified as good if it does not get worse after washing?, 3) it is not clear how the formula fits the different evaluation schemes and grids of test methods and their results, see as well comment 3009
787	9.2.1.3; 2911 f	seems not the correct way of calculating due to different reasons: 1) the loss is probably not linear, 2) a low-quality product is classified as good if it does not get worse after washing?, 3) it is not clear how the formula fits the different evaluation schemes and grids of test methods and their results, see as well comment 3009
788	9.2.1.3; 2913-2915	This lacks a scientific approach, it depends on many parameters, as e.g. product group, material, consumer, intended use, aging is NOT defined by number of washing cycles.
789	9.2.1.3 (page 107); 2913-2915	The cited AITEX "experience" lacks transparency and appears to be unsupported by scientific evidence. We are concerned about relying on such information for critical matters without thorough scrutiny.
791	1.2.1.4 (Task 4); 42	According to PEFCR A&F all categories of garment with the exception of subcategory 4 (Jackets and Coats only get 5 wash/ dry cycles) 15 wash cycles are required with either 7 dry cycles (for tumble dried garments) or 2 dry cycles where line drying is used. With regard to laundry the task 4 document contradicts itself, on page 17 it states "The number of cleaning cycles was mainly based on AITEX's experience and validated by their professional network." But on page 22 it says "The reported number of cleaning cycles is aligned with version 2.0 of the PEFCR A&F (Quantis, 2024)". This second statement is untrue as table 5 in section 1.2.1.4 describes the task 4 laundry requirements for durability testing. 4 of the 7 categories require 20 washing cycles, 2 require 30 and 1 (Jackets and coats) only 3. Clearly there is no alignment with PEFCR A&F.
792	9.2.1.3; 2915- 2916	The choice of the number of cycles is not supported by data and the supposed 'validation' is not explicit. We do not find data and justification behind the high number of washing cycles. 'The number of cleaning cycles was mainly based on AITEX's experience and validated by their professional network'. The JRC is asked to share the background data of AITEX, that it can be reviewed and validated by the industry.
793	9.2.1.3.; 2915 ff	this lacks a scientific approach , it depends on many parameters, as e.g. product group, material, consumer, intended use, aging is NOT = washing x times
794	9.2.1.3; 2915 f	this lacks a scientific approach , it depends on many parameters, as e.g. product group, material, consumer, intended use, aging is NOT = washing x times
796	9.2.1.3 How to assess physical durability; 2916	About "Aitex's experience and knowledge": on which study and results are based AITEX recommendations? which relevance and robustness? what are the sources? is there an expert consensus from the market? the manufacturer? the professions? other countries? Does it make sense for the community? We notice a lack of relevant trials in the table 44 as abrasion to reveal holes (ISO 12947 for instance) or loss of elasticity according to ISO 20932-3 for some products as underwear or swimwear, or again the spirality for a tee-shirt or a knitted dress according to ISO 16322. Proposed Thresholds are quite high & washing cycle too which is not necessary (proved by DURHABI study).

ID	Section & line	Comment
		[…] propose to base requirements on the results from the DURHABI collective research program (March 2022/Dec. 24) feeding French & European standardization and validated by industrials. A huge collaborative study obtaining consensus of brands, federations and different labs and stemming from real data representing the market. DURHABI was a unique "1 million euros" project launched via […] (standardization) and federations and piloted by […], to answer to governmental expectations and environmental needs. Its aim was to develop recommendations and framework for the physical durability assessment of 12 products' categories for 2 different uses: casual or sportswear. Conclusions and guidelines are coming from real trials lead in laboratories on 350 market products from 80 partner brands, some of which in the international market (from fast fashion to premium luxury). More than 10 000 garment were tested on 70 000 individual trials: their global comportment was analysed by experts to define the necessary and sufficient tests lists per categories, and the best threshold per use to develop a scoring method with 4 performance classes. A strong partnership composed of 4 international advanced brands in durability, 5 labs, the French textile school and professionals' federations validated data and developed specific recommendations with an universal philosophy centred to consumers returns (more than 47000 data lines gathered via our public enquiries to nourish our conclusions). The methodology was the following: - To look at the end of life causes for consumers in domicile according to national on-line enlarged enquires - To look for quality control defaults of returns in stores according to a specific excel formular and brands data - To conclude on the necessary and sufficient test lists for each product's category permitting to reveal each relevant identified default from the enquiries. - To define ageing standard process to be repeatable and reproducible using exclusively international or national standards and detergents or test methods, being accessible in laboratories. - To launch experimental research working program in laboratories for among 30 products per category (in several campaigns managed in cascade from preparation to analyse) and gather many results on 6 ageing stages (as new, and then after 1, 5, 15, 30 and 60 care cycles), which permit to follow products' comportment according ageing for each trial, - To analyse the data with durability and quality experts, via statistics: studying averages, medians, min and max, tendances and rupture points on dashboards (50 meetings of the technical committee + 30 WG meetings). - To identify the best adapted tests lists per category, and the relevant thresholds and care stages to recommend for each trial, per classes. That is to say: the crucial moment where a specific degradation is observed on graphs for each tested parameter: (vulnerability stage) - To elaborate a specific scoring method according to these results, permitting to reveal products weaknesses and in this case, impact significantly the score. This method is universal for every type of product, fair and representative of the defaults encountered by consumers at home. It is based on tests

ID	Section & line	Comment
		identified as critical and leading to the fall of the score in case of major default like hole or deformation for instance (revealed in our enquiries with consumers), according to defined ponderation coefficients. - To verify the scoring method and results relevance, products and composition comportment, differentiation and discrimination, to ameliorate the rules for a better alignment between categories and to finalize recommendations according to partner brands consultations. - To propose to the brands final complete framework with all the necessary information for testing, for voting and validations and to answer their questions and demands. - To share and transfer these recommendations to every initiative on physical durability and standardization committees (French BNITH and European CEN, Refashion, ADEME & government, PEF and JRC for ESPR), to explain and demonstrate results, to communicate and published them. We propose specific meetings with JRC and IFTH to explain results and learnings and go further.
797	9.2.1.3 How to assess physical durability; 2916	Concerning the ageing process: the number of cleaning cycles was mainly based on AITEX's experience and validated by their professional network: We agree with arguments and global analyse but DURHABI's results demonstrates that 30 cleaning cycles are too high and not necessary to test garment durability and causes costs and pollution. We observed during the 60 investigated cycles that some trials have to be conducted in general (except concrete cases): - as received for colour fastness (no evolution after that) - as received, or after 1 hygienic washing or 5 care cycles (for product's measurements and physical tests) - after 15 care cycles maximum for aspect assessment (5 for jackets and coats) to be able to see the default aspect. Only one sample of the product is concerned to go to 15 care cycles so as to be observed and compared to the product "as received". These findings are coming from our data analyse of product's studied comportment on the 60 investigated care cycles. If (for the conducted trials) performances curves were stable all along the 60 studied cycles: the earlier stage was recommended (0 or 1 care cycle). On the contrary: if curves were moving (increasing or decreasing), the most relevant stage was chosen: that is to say were data permit the products discrimination and showing the occurrence of defaults (vulnerability point). DURHABI also recommend following care instructions from the manufacturer, that means to launch dry cleaning if exclusively allowed (EN ISO 3175-2 or others) instead of washing machine cleaning when asked on the labelling (from GINETEX). For the dry cleaning, we recommend launching half of the requested cycles, rounded up (+1), because according to brands and CTTN (special technical centre for cleaning), garments are less cleaned by dry cleaning than by washing machine.

ID	Section & line	Comment
		Concerning the note under the table 44: the tests addressing dimensional stability and visual inspection need to be run after 1 cleaning cycle. In our dashboard for aspect assessment after washing according to ISO 15487 we observed that the inflection point is coming after minimum 15 cycles in our data fort each category (5 for coats, 1 for <100d tights). 1 care cycle is not an ageing process but a property cleaning and does not lead to the product usury. Or we are talking about durability and not only initial quality. As it is well said in this paragraph there is a concrete difference in analysing the manufacturing quality of a garment: quality of textile and assembly parameters and finishing, verifying the coloration quality and robustness and the possibility to put the garment on the market and the durability analyse: permitting to validate the state of a garment after ageing and normal usury. Concerning washing treatment according to label (domestic washing): DURHABI recommend caring according to standard ISO 6330/ISO 3758; only in standard testing washing machine from type A (in e. Electrolux Wascator®) permitting to control temperatures of the washing cycles and benefit from repeatable and reproducible conditions (even for the handwashing: specific program: 3H). It is not the case with household machines from the market. Load 2 Kg max according to ISO 6330. To save time and avoid drying at each washing cycle, DURHABI recommend regular drying according to labels (line dry or flat up to 12 hours if open air, or tumble dry) every 1, 2, 3, 4, 5, 10 and 15 with detergent 3 (standard without whitening agents causing bias on measurements. To take a special care of items made from animal fibres (>80%) DURHABI recommend drying them every 1, 2, 3, 4, 5, 7, 10, 12, 15 with special adapted detergent 7 from the ISO standard. Products from underwear, stockings and socks must be washed in specific washing nets. >>> French standard (N°NF G30-113- 1 and NF G30-113-2) are in accordance (published this 17th of February and available on AFNOR website: https://www.boutique.afnor.org/fr-fr/resultats?Keywords=NF+G30+113&StandardStateIds=1). These specific recommendations were also approved and pushed by the PEF-CR (V3- to be published 2025) apparel and footwear that ask to wash 15 times for aspect assessment of garments and follow DURHABI's conclusions. If allowed iron the product only once before sampling for testing.
798	9.2.1.3; 2917-2922	The text should be amended as follows: 'categories must include fiber composition. The raw material (fiber) implies specific failure modes, whereas the function implies a defined aging simulation.' It is curious how, in the document, material composition is excluded while it is considered in the study on accessories, where certain accessories are excluded specifically due to the need to categorize by material (reference to silk – line 2991). How is this exclusion of silk justified as regards other natural fibers?

ID	Section & line	Comment
		Each fiber should have its own durability parameters.
800	9.2.1.3; 2923	The principle of economy has not been adequately considered in the proposal. Any approach on implementation needs to be on a risk-based approach. The defined tests exceed those typically based on common apparel failure causes, and the aging process requirements are excessive, both in terms of the number of washings and the mandate to retest all parameters. Additionally, the economic burden shall include the cost of garments used to perform the test and that they are destroyed during the testing process. While this cost may be low for a shirt, it is significantly higher for garments made from noble fibers like cashmere or vicuña, or outerwear such as coats and jackets. Another significant cost factor is the courier services for sending samples to laboratories. The economic impact of implementing this protocol is significant, particularly for SMEs. The affordability of the process is a key aspect to consider to respect the economic principle avoiding serious consequences for the competitiveness of the European textile industry. Besides the proposal defined in table 44 and 45 does not contemplate the possibility of performing a risk assessment which is the normal practice in product compliance regulation. A risk assessment allows to effectively screen out what is risky from what is not in terms of compliance with the procedure. A good evaluation risk focuses better on the real or potential risks, making the procedure efficient, because the timing needed to manage the tests is lesser, and cheaper, as the number of products to be analysed is reduced. For example, in the analysis of seam strength in loose garments, the possibility of non-compliance would be also very low and therefore would only imply an unnecessary expense. Another important aspect to consider is the environmental impact associated with the analytical process. The 20-30 of washing cycles required during the aging process as well as the rest of the testing process, entail a big impact in terms of energy expenditure, water consumption, use of chemicals (detergents, softeners) and wastewater discharge. Finally, the existing capacities of test centres/laboratories to carry out the testing must be considered.
803	9.2.1.3.; 2924	It does not make economic or ecological sense neither to test all materials/products or to wash all materials/products up to 30 times as a standard test. This won't be feasible and any approach on implementing needs to be on a risk based approach
804	9.2.1.3; 2924	It does not make economic or ecological sense neither to test all materials/products or to wash all materials/products up to 30 times as a standard test. This won't be feasible and any approach on implementing needs to be on a risk based approach.
805	9.2.1.4; Table 44 Line 2929 General comments	The durability thresholds outlined in Table 44 set unreasonably high requirements making many textile products non-compliant—even those made entirely from new synthetic virgin fibres. Contrary to claims of fibre neutrality (lines 2897-2900), these thresholds inherently favour synthetic fibres, which generally perform better than natural fibres. This approach could drive an increased use of chemical additives and surface treatments to meet testing criteria, some of which are not permitted under environmental certification schemes, disadvantaging certified products in ESPR durability tests. Additionally, the use of fixed durability thresholds (if too high and to many wash cycles) risks penalizing natural fibres and encouraging fibre blends that are not always the most sustainable option.

ID	Section & line	Comment
806	9.2.1.4; Table 44 Line 2929 General comments	It is essential to use the same categories as in PEFCR, as adopted in Milestone 1 and recommended by the industry. The unexpected shift to a different, unsupported categorization creates confusion and risks inconsistent application of ESPR requirements. Additionally, some categories include only woven or only knitwear (e.g., trousers and jackets), while others do not. The proposed categories do not accurately represent the sector and is not accepted unless they are structured by fibre composition, with further subdivisions based on fabric weight and construction. We also question why this principle is applied to denim but not to other categories.
807	9.2.1.4; Table 44 Line 2929 General comments	We strongly recommend that JRC focus the discussion on market access values specifically on defining the minimum requirements necessary to ensure "the removal of the worst-performing products from the market"—a key objective outlined in Recital 24 of the Ecodesign for Sustainable Products Regulation (ESPR) when setting performance requirements. Lowering the thresholds from those currently specified in Table 44 (under 'Characteristics of the new product') would not equate to lower quality but rather to establishing 'high and realistic' quality requirements.
808	9.2.1.4; Table 44 Line 2929 General comments	A wide range of factors influences the selection of the most representative testing methods and the establishment of appropriate threshold values for apparel. One significant gap in Table 44 testing approaches is the lack of differentiation in fabric structures within product categories. In most cases, the Table does not distinguish between woven and knitted fabrics, despite their distinct mechanical properties. This distinction is crucial in defining both testing parameters and performance thresholds. Additionally, different knitting and weaving techniques further impact test results, for instance, a tightly woven twill offers greater abrasion resistance than a loosely woven plain weave, just as an interlock knit behaves differently under stress compared to a single jersey knit. Many product categories in the market include both woven and knitted variants, each with unique characteristics that significantly affect durability and wear performance. Beyond fabric structure, material composition plays a major role in durability. The performance of natural fibres differs significantly from that of man-made fibres, and the behaviour of mono-materials varies compared to blended materials, where fibre percentage distribution affects the test results. Likewise, different surface treatments alter a fabric's texture and durability, influencing how it performs under repeated use and laundering. Another key aspect often overlooked is the influence of fabric weight, particularly in woven textiles. Fabric weight directly impacts strength and physical durability, meaning that lighter and heavier fabrics cannot reasonably be expected to meet the same performance thresholds. Without factoring in weight differences, testing criteria may lead to misleading conclusions about product longevity. However, it is important to note that several testing methods take weight into account. Practical application is another crucial consideration. The intended use of a product should inform durability expectations—sportswear, workwear, and outdoor apparel are exposed to different levels of wear and stress compared to everyday fashion, requiring testing methods that reflect their specific performance demands.

ID	Section & line	Comment
		Our key point is that a representative test list can quickly grow in both size and complexity. If we lose sight of the core objective—defining the minimum requirements necessary to ensure the removal of the worst-performing products from the market (Recital 24, ESPR)—we risk overcomplicating the process. This objective should remain the guiding principle when establishing performance requirements. We strongly urge the JRC to focus on developing a simple and effective market access baseline rather than aiming for best-in-class performance standards. The market access baseline should ensure that the worst-performing products are removed from the European market. Beyond these thresholds, companies are expected to set higher performance criteria and implement additional testing that aligns with their own quality standards and customer expectations (a competitive parameter and normal practice today). In the following we will present a draft proposal on a simplified test list for market access baseline.
809	9.2.1.4; Table 44 Line 2929 General comments	We support a clear simplification of the proposed test list in Table 44. Our general approach to proposed test list is: • Test list based on criticality, meaning minimum physical durability criteria for all apparel, and complies with the findings in Table 43. • Cost- and time-efficient testing procedures (cleaning cycles, one method testing multiple characteristics, also taking into consideration environmental impacts of higher energy and water consumption) • Specified testing conditions for comparability and scalability. For simplification, we propose a uniform test list for all product categories (“Category description” in Table 44) with a separate and additional test list for specific parameters and products. The proposed test list considers both material composition (man-made vs. natural fibres and mono-materials vs. blended materials) and fabric structure (woven, non-woven, knitted), while fabric weight has been accounted for in the suggested test standards. Since this is a market access baseline for apparel, this initial draft defines only the minimum requirements. Stricter thresholds and additional testing to support intended use (e.g. children’s-, sports-, work-, outdoor wear) fall beyond this baseline and simply add “durability value” to the product. At the same time, concerns have been raised regarding how the proposed thresholds accommodate recycled fibre. Under this approach, products containing recycled fibres must meet the minimum requirements, ensuring that sustainability efforts do not compromise durability expectations. Stricter thresholds, additional testing, and certification schemes that impose higher requirements for performance and durability (beyond the market access baseline) can be voluntarily disclosed through the Digital Product Passport (DPP). This allows brands to differentiate their products based on enhanced durability and quality. It is essential that the testing requirements imposed on businesses provide value to the company. Businesses should have the flexibility to design their own testing programs, which must at least comply with the market access baseline, but can then be tailored to reflect their product portfolio, brand values,

ID	Section & line	Comment
		and customer expectations. This ensures that testing remains both relevant and beneficial rather than an unnecessary burden. We propose that testing should be required in cases where product performance claims are made. For this reason, we have also included this aspect in our proposed test list. (Comment continue in next point)
810	9.2.1.4; Table 44 Line 2929 General comments	(...) Continue from last comment - The draft proposal has been sent in table format for easier overview. It is sent to JRC mail: JRC-B5-TEXTILES@ec.europa.eu Category description/ Test method/ Details/ Characteristics of the new product Heading: All categories ID 1-10 Category description; Dimensional stability Test method: ISO 6330 for domestic washing and drying procedures for textile testing. Details: 3 cycles, According to care label, Determination of dimensional change after washing and drying Characteristics of the new product: ≤3 % woven, ≤ 5% knitted Category description; Visual inspection Test method: ISO 15487 and ISO 7770. Based on above ISO 6330 visual inspection on dimensional stability on wrinkle resistance and spiral twist can be added Details: 3 cycles. Tested characteristics: 1) Colour change, 2) Self-staining (cross staining), 3) Pilling, 4) Trimming aspects, 5) Wrinkle, 6) Twist Characteristics of the new product: 1) Colour change: ≥ 4, 2) Self-staining (cross staining): ≥ 4-5 if denim ≥ 3-4, 3) Pilling: ≥ 3-4, 4)Trimming aspects: ≥ 4-5, 5) Wrinkle resistance: ≥ 3-4, 6) Spiral twist ≤4%

ID	Section & line	Comment
		Heading: Additional test for knitted products Category description; Pilling Test method: ISO 12945-1 Details: Knitted products only. Recommended: Round knit 18.000 cycles and flat knit 10.800 cycles Characteristics of the new product: ≥3-4 Category description; Bursting resistance Test method: ISO 13938-2 Details: Knitted products only Characteristics of the new product: ≥ 200 kPa Heading: Additional test for woven products Category description; Pilling Test method: ISO 12945-2 Details: Woven products only Characteristics of the new product: ≥3-4

ID	Section & line	Comment
		Category description; Abrasion resistance Test method: ISO 12942 Details: Woven products only Characteristics of the new product: ≥ 16.000 and ≥ 20.000 for trousers and denim Category description; Tear strength Test method: ISO 13937-1 Details: Woven products only Characteristics of the new product: 20 N Heading: Additional test for denim Category description; Colour fastness to rubbing Test method: ISO 105-X12 Details: Denim only Characteristics of the new product: ≥ 3-4 Heading: Additional test for swimwear (ID 10)

ID	Section & line	Comment
		Category description Colour fastness to chlorinated water Test method: ISO 105 E03 Details: Swimwear only. Colour change only. Grade on greyscale Characteristics of the new product: ≥ 4 Category description; Colour fastness to sea water Test method: ISO 105 E02 Details: Swimwear only. Colour change and staining. Grade on greyscale. Characteristics of the new product: ≥ 4 Heading: Specific for hosiery, stockings and socks (parts of ID 8) Category description; Abrasion resistance Test method: ISO 13770-1 Characteristics of the new product: ≥ 15.000 Heading: Specific for apparel which can only be dry cleaned or wet cleaned Category description; Dimensional stability

ID	Section & line	Comment
		Test method: ISO 3175-1 for professional care, drycleaning and wet cleaning and ISO 5077 for determination of dimensional changing after wash and cleaning Details: Instead of ISO 6330, ISO 15487. According to care label Characteristics of the new product: ≥ 4 Category description; Colour change Test method: ISO 105 D01 Characteristics of the new product: ≥ 4 Heading: Additional test to product with functional claims Category description; Water repellency Test method: ISO 4920 Characteristics of the new product: Information requirement Category description; Water proofness Test method: ISO 811 Characteristics of the new product: Information requirement Category description; Wind proof Test method: ISO 9237

ID	Section & line	Comment
		Characteristics of the new product: Information requirement Category description;Colour fastness to weather Test method: ISO 105 B04 Characteristics of the new product: Information requirement (Comment continue in next point)
811	9.2.1.4; Table 44 Line 2929 General comments	(...) Continue from last comment This test list, supported by industry best practices and Cooper & Claxton's findings on common apparel failures. The threshold values have been determined based on an assessment of when companies experience customer complaints. Products made from natural fibres will be more affected by washing cycles than products made from synthetic materials. This means that the number of wash cycles in durability assessments will yield poorer ratings for natural fibre products (silk, wool, cotton, linen, etc.). We recommend that washing conditions should be adjusted so that, in addition to modifying temperature and washing intensity, the load size should also be altered, e.g., from 2 kg to 1 kg for products made from natural materials. For dimensional stability, the most significant changes occur within the first 3–5 cycles, as the fabric releases internal tensions from spinning and weaving. After this point, further washing has minimal impact. Based on our proposed test list, around 90% of the changes to the product will already be visible after 3 wash cycles. Colour changes cannot be determined directly after so few wash cycles; however, self-staining will provide sufficient indications of the expected colour changes. 3 wash cycles provide a more equal conditions("fibre-natural"-approach) for different fibre compositions to meet the requirements.

ID	Section & line	Comment
		It is important to remember that the purpose of the durability testing is to identify product failures, not to simulate the aging process. Additionally, conducting 20–30 wash cycles in an accredited laboratory is both costly and very time-consuming. IMPORTANT: Simplifying this complex field is challenging. Our proposal is a starting point for deeper analysis of the impact of test standards and thresholds. We have examples of high-quality 100% cotton workwear with up to 10% shrinkage. Identifying exceptions is key to ensuring well-performing products are not unfairly affected by new Ecodesign requirements. We urge the JRC to involve European industry associations and their members in assessing which products face challenges to meet the market access baseline and why.
812	9.2.1.4; Table 44 Line 2929 General comments	Going forward we recommend the JRC to adopt a risk-based testing approach, similar to those used in REACH and the General Product Safety Regulation. Testing all products would have significant environmental cost, lead-time impacts and economical cost for textile companies, especially SME's, creating bottlenecks. We recommend that all tests be conducted at test facilities either at the suppliers' locations or locally in the production countries. Representative samples are continuously selected and checked at accredited test facilities to ensure that the quality of the tests is sufficient. This procedure is also known from the Oeko-Tex certification. It is important to use local test facilities, as this allows failures to be detected already in the product development phase. Currently, when a failure occurs, a dialogue is initiated between the brand company and the manufacturer to assess whether it impacts the consumer experience, including usability, feel, and durability. This nuanced approach ensures a proper evaluation of the failure's actual impact and helps prevent unnecessary destruction of products. A risk-based approach and the use of local test facilities create a more cost- and time-efficient process while preserving the capacity of accredited testing agencies, which are responsible for ensuring the quality of the tests conducted. We ask the JRC to clearly define the consequences of failing a durability requirement and to be mindful of the potential risk of large quantities of tested products being destroyed as a result.
813	9.2.1.3 (page 107); 2929-2932	We express our differing perspective on the statement, noting its lack of transparency. Seams in knitted fabrics can be more susceptible to failure due to their structural properties and higher elasticity compared to woven fabrics. Knitted fabrics are renowned for their elasticity, attributed to their looped structure. While this elasticity offers advantages in terms of comfort and fit, it

ID	Section & line	Comment
		also means that seams in knitted garments are subjected to greater tension during wear. This increased tension can make seams more susceptible to failure if not properly constructed. Among various fabric constructions, numerous additional parameters influence seam strength. We find no objective justification for limiting the consideration of this critical durability aspect solely to woven fabrics. References: Admassu, Y., Edae, A., Getahun, G., Kumar, S., Saravanan, K., & Sakthivel, S. (2022). Experimental analysis on the effect of fabric structures and seam performance characteristics of weft knitted cotton apparels. Journal of Engineered Fibers and Fabrics, 17. https://doi.org/10.1177/15589250221113479 Gürarda, A. (2019). Seam performance of garments. https://doi.org/10.5772/intechopen.86436 Borse, S., Sonawane, K., Kakde, M., & Shinde, T. (2020). Review on analysis of seam quality. https://doi.org/10.5772/intechopen.87999
820	9.2.1.4; 2935	Product categories should be aligned with the PEFCR. When considering durability, it is essential to separate woven and knit fabrics for each subcategory due to their distinct structural properties and performance characteristics. This distinction will allow for more accurate assessments and tailored strategies to enhance the lifespan and quality of each fabric type, ultimately leading to more precise and effective thresholds. When looking at end-of-life failure, associated tests in laboratories can be different for knit and woven fabrics. Adapted tests would allow a more precise and relevant final note to measure durabilities of garments.
821	9.2.1.4; Table 44	For socks, the method stated for bursting strength is a test method for gas cylinders. It should be EN 13770:2002 Additionally, for hosiery (leggings, stockings, tights and socks) abrasion requirement is extreme high for normal socks with majority composition of cotton. The Bursting requirement is also very high for normal socks, for stockings it might be more realistic? (Furthermore, the knit construction for stockings tights and socks are different weft knit versus warp knit.). Source: https://www.faa-design.com/files/4/10/4-2-desoki.pdf, slide 4 (page 232)
822	9.2.1.4; Table 44	Pilling requirements are generally quite high. Grade 4 can be unachievable for some materials such as fleeces and wool based products. More specifically: • For woven products (trousers, denim, shirts, blouses and jackets) pilling requirement for woven products) is set at level ≥4 regardless of fibre type, fabric or treatment. This is unrealistic, as some mixed fibre composition has an increased pilling tendency compared to e.g. products made of 100% polyester, in addition, fabrics made of soft spun yarn with short fibres have a certain tendency to pilling by nature (also mix. Cotton/linen). Finally, some fabric treatments such as brushing has an influence on the pilling tendency too. In general pilling tendency is significantly affected by fibre types, yarn type incl. tpi and fabric structure, this has not been taken into consideration in the JRC.

ID	Section & line	Comment
		• For knitted products (sweaters and t-shirts) Pilling requirement is unrealistic, especially as the 14.400 (equal 4 hr) test cycles are not commonly used in the fashion industry, it is typically 10.800 (3 hr) and 7.200 (2 hr) for soft or wollen products. In general pilling tendency is significantly affected by fibre types, yarn twist and fabric structure, this has not been taken into consideration in the JRC. A tight and compact construction will only have little or no pilling, whereas loosely (soft) knitted fabrics are more likely to show pilling. • For jackets and coats requirement to pilling is not achievable for all products e.g. wollen jackets, or in mixed fibre composition. • The inclusion of pilling assessment in the denim product category raises questions, as pilling is not typically a standard failure mode associated with these materials. It may be more appropriate to focus on performance criteria that align with the specific characteristics and usage of denim.
823	9.2.1.4; Table 44	Dimensional stability - the requirements seem to suggest in general that 3% is suitable for woven and 5% suitable for knit. However, this is not clear for product types such as trousers, shorts skits where only dimensional stability of 3% is allowed. Knitted trousers are not considered.
824	9.2.1.4; Table 44	The requirement for swimwear to achieve a colourfastness to light grade of 5 is generally challenging to meet. Swimwear is often constructed from nylon/elastane blends and frequently incorporates bright or fluorescent colors to align with trends or enhance visibility and safety in water. However, achieving a grade 5 colourfastness for certain bright or fluorescent shades is technically unfeasible for this product category.
825	9.2.1.4; Table 44	The specified method for seam testing is applicable exclusively to woven fabrics. It is recommended to adopt test methods that are tailored to the specific material type to ensure accurate and relevant results.
826	9.2.1.4; Table 44	For knitted products (sweaters and t-shirts) bursting requirement, the set level will not be achievable for all types of fabrics, or compositions, e.g. polyester are having higher levels compared to cotton, whereas special yarns and fabric construction or treatment will have lower bursting level (slub yarns, wash effects, burn out effect etc.)
827	9.2.1.4; Table 44	Regarding the category description: It is also fundamental that the assessment of durability categorises requirements by product categories, product construction, and by the intended product use and functionality. It is fundamental to consider not only product categories, but also intended use. It is hence important to recognise variety of intended uses and how they affect cleaning cycles or other product parameters.
828	9.2.1.4; Table 44	Upon examining table 44, and acknowledging that durability requirements and thresholds will be addressed in Task 6, we would like to share the following remarks: • There is no differentiation, in most cases, as per the technology of the fabric in each of the product categories. The differentiation between woven and knitted products is key to define both their testing parameters and thresholds. In the market, most of the product categories exist with knitted and woven structure, and the properties thereof differ considerably. In the international market, the test for knitted differs from the woven and for this reason it is basic to breakdown both testing methods and thresholds per structure. • We can observe that while some thresholds align with international market practices and the average quality of a good product, others exceed market norms, setting very high standards (please see below comments for specific examples). This is particularly demanding for garments made from certain fibres, such as regenerated cellulosic fibres (viscose) or animal fibres like wool and cashmere, among others. For example, to achieve a grade≥ 4 in pilling for a sweater after 14400 cycles (ISO 12945-2), is unfeasible in a blend of wool with polyester for example, especially when the percentage of wool in the blend is higher than the synthetic fibres.

ID	Section & line	Comment
		• Furthermore there seems to be lack of consistency in some instances where the pilling resistance is relatively higher for tops, whereas it is the bottoms materials that are commonly more durable, so higher number of washing cycles for bottoms rather than tops would be expected. • We strongly recommend addressing physical durability by focusing on the ISO test standards for identifying the most common failure modes for apparel (Section 9.2.1.4. Line 2939. Heading 'Description of product technologies per category'. Topic: 'Table 44 – categories must reflect product composition and technology of the fabric as this significantly impact the product descriptions, key parameters, and test methods').
829	9.2.1.4Table 44; Table 44	At the […], we have formerly shared with the JRC our suggested approach for the setting of durability requirements. The table proposed by the JRC in the second milestone present several challenges. In some areas the test method specified is not suitable for the product type or all possible versions of the product type. In some areas the requirements are extremely high and would have a significant impact to industry standards. We would suggest to either look at product categorisation in more detail (e.g. by fabric type or intended use and not just product type) or need to ensure standards work for ALL kinds of products in the category. As also indicated in […] Guidance Document for Textiles Delegated Act, we recommend following an approach focusing on the most common failure modes, as reflected in the table included in our document. The table indicates whether durability requirement should be measured at the level of the final product or the fabric and specifies the categorization of the material type for which the requirement should be established. Category description: ID #1-9 (excluding socks) in table 44 (line 2939) For 'PU coated fabrics, only wash tests applies. Key Parameter (unit) and Test Method - Appearance after wash (all textile products – to test on final product) ISO 15487: Method for assessing appearance of apparel and other textile end products after domestic washing and drying but only for the parameters related to durability and not for parameters related only to quality. From the JRCs Q&A, we understand that the 'Characteristics of the new products' are not minimum performance requirements and that these will be addressed in Task 6. Dimensional Stability Shrinkage (to test on final product)

ID	Section & line	Comment
		For woven - ISO 6330 for domestic washing and drying procedures for textile testing, or ISO 3175 for Professional care, dry-cleaning and wet cleaning, also according to the care label. For knitted - ISO 5077 for the determination of dimensional change after washing and drying. Pilling (only knitted products – to test on fabric) ISO 12945-1: Determination of fabric propensity to surface pilling, fuzzing, or matting. Part 1: Pilling box method. Fabric Tensile Strength (only woven products – to test on fabric) ISO 13934-1 OR ISO 13934-2 Fabric Bursting (only knitted products – to test on fabric) ISO 13938-2 Characteristics of the new product If the 'Characteristics of the new product' were JRCs recommendations for minimum performance requirements, these are unreasonably high and a significant number of textile products would not be able to meet these requirements, even if the products were produced solely with new synthetic virgin fibers as the 'Characteristics of the new product' are far from being 'fibre-neutral' as otherwise stated in line 2897-2900. For Task 6, when setting minimum performance requirements, we call on the JRC to take into consideration the recommendations outlined in previous comments and below. We strongly recommend applying 5 cleaning cycles to all product descriptions. Simulation of ageing process For 'Jackets and coats', 3 cleaning cycles. For "Dry clean only" products, 3 dry cleaning cycles.
830	9.2.1.4; Table 44	We propose setting a framework defining thresholds that are achievable for any type of fibre in order not to discriminate them against other more resistant fibres as synthetics. These balanced thresholds will facilitate the use of these fibres and avoid overly complicating the procedure. A procedure

ID	Section & line	Comment
		with very high thresholds or testing conditions might foster the use of synthetic fibres over the natural ones. In order to acknowledge the differences in fibres and fabric materials, the approach suggested above could be complemented with specific thresholds with lower requirements for certain fibres and parameters only to avoid complicating the procedure excessively. When it comes to enforcement, we strongly recommend adopting a risk-based testing approach of the Product Safety Regulation. Testing all products will have severe negative impacts on the environment, on costs, and on lead times as it will result in bottlenecks and the destruction of the significant number of tested products.
831	9.2.1.4; Table 44	Regarding cleaning cycles, 20 to 30 washing cycles are extremely high and this would impose a very considerable cost on the industry. Most failures will have appeared after 5 cleaning cycles according to care label instructions, offering what we consider an approach that allows to scale durability testing in the mandatory ESPR framework and ensure the efficiency of the scheme. This includes changes in dimensional stability, appearance after wash, and decorations such as printing. Furthermore, the standard testing methods do not account for the use phase, which is why garments that are washed more than 5 times without wear-testing are more prone to failing than a garment that is wear-tested, as the former has not been tested when exposed to perspiration and moisture over time which significantly helps to sustain the longevity of a product. However, for products that are not home laundered, e.g. delicate apparel made from silk or cashmere and that will require dry-cleaning, a different approach will have to be developed, and for "Jackets and coats", up to 3 cleaning cycles are sufficient. We call on the JRC to rethink how many cleaning cycles are really required to assess physical durability. Additionally, the visual requirements after 20 to 30 washes, particularly the grade 5 standard for self-staining and trims, effectively demand no visible change. This raises the question of whether such an expectation accurately reflects consumer standards, as it seems unrealistic to assume that any product would remain unchanged in all aspects after such extensive use. For most products, achieving no change after 20 to 30 washes would be technically unfeasible.
832	1.2.1.4 (Task 4); Table 5	ID 1 : we would like to know if both knitted & woven bottoms are involved in this category? If yes, some tests are specific to woven and not usually applied to knits / sweat pants (Tensile strength, ISO 12945-1 instead of ISO 12945-2, Seam resistance). On the other hand, for sweat pants (heavy knit) bursting strength or snagging resistance are not tested and could be relevant.
833	1.2.1.4 (Task 4); Table 5	"All lines / number of washes: to provide data to the Durhabi work group involving 80 French brands, the [...] tested a lot of products in each product category up to 60 washes. They could mathematically show that Appearance after wash parameters would stabilize after 15 washes, Dimensional stability & Spirality performance stabilizes after 5 washes and other parameters are close to new item or after 1 wash. That's what they published in the standards NF G30 113-1 &-2 specific to T-Shirts. Similar conclusions were shown for all product types (except Jacket & Coats where fewer washes are considered because these products are usually washed less often)."
834	1.2.1.4 (Task 4); Table 6	"Based on the Durhabi work group involving 80 French brands, the [...] published a physical durability assessment method in the standard NF G30 113-1 : The tests were chosen to simulate the end-of-life causes identified for each product category in the return rates shared by the brands involved and measured in the Marketing study performed on French consumers. For each product category, the tests are weighted in the final grade according to their importance in causing the end of a product's life. This allows the final grade to be closer to the consumer's experience. The physical durability grade is calculated using the product's performances to the tests & the tests weight in the grade. In the future, to push brand to increase their products' durability, the requested level of performances to the test could be increased instead of increasing the number of washes (thus increasing the testing time for the brands).

ID	Section & line	Comment
		Decrease of performance level does not hilight durability, it only shows the decrease of performance. But decreased performances does not mean the products are not wearable anymore. If a product has very good performance at new but only acceptable performances after 20 washes, it might have a very bad grade even though it's still acceptable. E.g.: chino pants with 1,6% shrinkage after one wash can reach 4,6% after 20 washes and obtain a decrease performnace level of 181%. If we imagine 3% shrinkage after 20 washes (quite an usual woven item performance), the decrease performance level is still 88%. Could we imagine a more realistic ratio or use a realistic scale for the % obtained. "
835	1.2.1.4 (Task 4); Table 5	The suggested number of wash cycles raises some questions. I assume that this is determined to be the number of washes in a typical lifetime. There are some discrepancies here from what other teams have published. For example, when comparing to the data from The Waste and Resources Action Programme (WRAP). WRAP's life time data is based on their 2021 citizen insight survey and their 2013 clothing longevity protocol framework. For denim WRAP determined the life to be 33 wash cycles, for t-shirts 25, for outerwear 19, sweaters 31 and underwear 30. As opposed to 20, 30, 3, 20 and 30 for this proposal. Underwear is the only one that matches the task 4 framework. According to the task 4 framework outerwear will only be washed 3 times - which is nowhere near enough especially bearing in mind the recent changes to water repellent technology which will require rainwear to be washed and reproofed several times a year to maintain performance.
836	1.2.1.4 (Task 4); Table 5	The required test for Bursting Resistance is ISO 13938-2, with a specified test area of 50cm2. Many fabrics can not be tested on this size. Most brands actually use a 7.3cm2 test area - which is allowed in the standard. I would suggest considering adapting this test area size.
837	1.2.1.4 (Task 4); Table 5	In the proposed framework there is some inconsistency in the way pilling tests are performed. For 5 of the seven categories that require pilling testing ISO 129445-2 is specified with a maximum 2,000 cycles even though the standard suggests 7000. For the other 2 categories ISO 12945-1 (a very different test) is required and the number of cycles is pushed to the maximum suggested in the standard, 14,400. This is beyond what most brands would normally perform as part of their regular testing (10,800 is more often the maximum number of cycles).
838	1.2.1.4 (Task 4); Table 5	For tensile strength throught the durability testing requirements ISO 13934-1: 2014 is quoted, this is the strip method. Most test houses would recommend ISO 13934-2 - the grab method as it is less susceptible to problems such as tearing in the wrong direction.
839	1.2.1.4 (Task 4); Table 5	Throughout the table there is a requirement to launder "X washing cycles following ISO 6330" . This could cause logistical problems in accredited laboratories. For garments that have to be line dried only one wash cycle per day can be accomplished, and even when tumble drying is allowed 4 a day is realistic. ISO 6330 only allows one garment at a time in the machine. The standard machines are only made by 1 gmanufacturer worldwide (Electrolux) - brands like James Heal and SDL buy them from this supplier. I am reliably informed that at the moment there is a 3 month lead time and great expense (approx £12k). A new rapid ageing test is desperately required for durability assessment to avoid very long delays and huge cost in product development. Brands in a recent trial we ran of the WRAP durability framework reported that it cost £800-1000 and took 14 days.
840	9.2.1 Physical durability; 2939	Durability requirements should build on the technical approach of A&F PEFCR based on A&F failure modes but keeping in mind its limits, as laboratory operating conditions and thresholds of performance have not yet been confronted to real-life use and care. It is important to keep in mind that synthetic materials tend to perform much better than natural fibres in lab tests however this does not reflect in peoples' wardrobes. In case minimum performance requirements of physical durability would be set, in an horizontal approach, then thresholds should be very carefully studied not to penalize natural fibres (ex. Abrasion in case of flax-linen; strength in case of wool; etc.).
841	Physical durability; 2939: Table 44	[...] done a strong and large experimentation on durabilty of textile named DURHABI. This study analysed numerous garments and shown that after 15 cyles washing we already know if product will be last for long or not as bad product already failed before 15 washing and frequentlty no big change between 15 and 30 washing. This study will help not wasting more water with all european laboratories doing 30 washing tests when 15 alredy give the good picture.Regarding dimensional change < or = 3% is very strict for knitting underwear. Industrial may increase their treatment to stabilize more their

ID	Section & line	Comment
		fabric, which can lead to reverse willing impact on environment by increasing chemical and use of energy and water to obtain this strict result. recommendation to increase the tolerance to 5%
842	Table 44. Product description from the perspective of physical durability; 2939	The study gathers a wide range of studies and comes to theoretical conclusions. We recommend testing or allowing for testing of the robustness of these conclusions in real life to ensure no unintended impact on product availability, sustainability performance or fitness for use on the EU market. An example of the potential negative impacts of a theoretical approach only are the suggestions on using certain seams under repairability which is likely to cause garment failure and snapped seams for various apparel use cases, leading to their discarding.
843	Table 44. Product description from the perspective of physical durability; 2939	The sector estimates that undertaking the proposed durability testing protocols will approximately be priced at 500 euros per garment unit tested as per current industry practices and in particular considering the high number of washing cycles. We therefore recommend choosing only those tests necessary to identify the main garment failures and allowing for testing efficiency wherever possible via: style level testing, the use of material level test data and a risk-based approach. To align with other EU legislation, we recommend connecting product categorisation to CN customs codes.
844	Table 44. Product description from the perspective of physical durability; 2939	The industry supports a separate assessment of apparel accessories if the JRC is not able to undertake a complete assessment in the Task 4 document regarding this product category's impact across all impact categories.
845	Table 44. Product description from the perspective of physical durability; 2939	The industry wishes to ask for clarification on the separate treatment of denim trousers, shorts, and skirts, while at the same time maintaining denim jackets under the broader category of jackets and coats.
846	Table 44. Product description from the perspective of physical durability; 2939	Product categorisation Table 44 omits consideration of the intended use of the product, that should be indicated at the manufacturing stage and follow the testing standards appropriate for that category. In consequence, the industry calls for further specification into the following sub-categories: - Delicates/occasional wear – items which are worn and washed less often and are usually made of more delicate materials such as lace/silk/wool. The expected durability of these items is different for consumers and the items are usually worn in different environments and cared for differently. - Casual wear – products worn in the daily life with higher frequency of wash and wear in their lifetime. This would be a broad category covering most products which do not market any specific performance features to the consumer, nor are sold as delicate/occasional wear products. - Performance wear – products which have performance features where specific functions are clearly marketed to the consumer. E.g. "waterproof / thermal insulation / abrasion resistant / sweat wicking / quick drying / compression / reflective". Performance features may be required for certain use cases and often require the use of specialist materials or finishing which should be taken into consideration in the requirements. It is fundamental that the distinction between the different textile categories is based on precise definitions with parameters and characteristics that allow for clear separation between products based on their intended use, as in other existing legislations such as Personal Protective Equipment Regulation, General Product Safety Regulation and Toys Safety Directive. Proposed categories for intended use align with how products are typically marketed and segmented for consumers. Brands could seamlessly integrate this categorization into their existing product ranges, as it mirrors the approach already employed by most department stores, where product ranges are

ID	Section & line	Comment
		organized into distinct retail sections corresponding to these categories. Moreover, the proposed classification will improve the analysis of the results from the test methods and will improve the thresholds' setting without setting unachievable requirements for silk evening wear, making requirements too low for performance wear, as well as providing inadequate comparative tool for customers by comparing summer occasional wear jacket with winter thermal insulating down jacket by excluding from consideration the weight of the product, its composition, construction, finishing, and intended use.
847	Table 44. Product description from the perspective of physical durability; 2939	Industry raises its concerns regarding the lack of recognition of fibre type, yarn construction, fabric construction, and fabric finishing/surface treatment, its placing (lining or outer fabric) and end uses in the final product categorisation versus key parameters and simulation of the aging process proposed by the JRC in Table 44. The distinction between woven and knitted products impacts the types of standards to consider in the context of physical durability as well as maintenance by consumers. For example, the dimensional stability requirements of a 3% allowance for trousers imply only woven materials (3%) are used for trousers, making the standard unachievable for knitted trousers (5%). Moreover, the seams test method specified in the table is also dedicated only to woven materials. Another example is tensile strength method ISO 13934-2, that is not applicable for knitted fabric. For the dimensional stability, in consideration of the variety of fibre's origin, the industry wishes to propose a specific distinction of characteristics, shared with the JRC via email.
848	Table 44. Product description from the perspective of physical durability; 2939	Industry raises its concerns regarding the lack of recognition of fibre type, yarn construction, fabric construction, and fabric finishing/surface treatment, its placing (lining or outer fabric) and end uses in the final product categorisation versus key parameters and simulation of the aging process proposed by the JRC in Table 44. For pilling parameters, some of the grades are considered too high in comparison to certain types of materials such as wool and fleece, which are more prone to pilling, while others, such as denim, should not have this parameter taken into consideration. Furthermore, there seems to be lack of consistency in some instances where the pilling resistance is relatively higher for tops, whereas it is the bottoms materials that are commonly more durable, so higher number of washing cycles for bottoms rather than tops would be expected. In practice, the industry uses specific parts of the ISO standards depending on the product's end use. Moreover, grade 4 after 20 washing cycles is a stringent requirement, particularly for natural/animal fibre and its blend/brushed/raised/pile fabric. additionally, industry calls for inclusion of alternative method, e.g. ISO 12945-1 and ISO 12945-2.
849	Table 44. Product description from the perspective of physical durability; 2939	For swimwear, the industry wishes to raise its concerns regarding selective consideration of certain parameters, by setting the parameters of elasticity of the fabric only for womenswear products. This excludes many types of products from the menswear, such as tight-fitting briefs or swim trunks. The industry recommends replacing the gender specification into product-specific requirements, for materials containing elastane. Additionally, the industry

ID	Section & line	Comment
		disagrees with the colourfastness to light requirements set at grade 5. Swimwear fabrics often contain nylon and/or elastane and can use fluorescent dyestuff to create bright colour in the water also for visibility and safety matters. In consequence, such a high grade is not achievable for some products.
850	Table 44. Product description from the perspective of physical durability; 2939	For self-staining and trimming aspects, the high grading for these parameters does not allow for sufficient tolerance of minor manufacturing flaws that tend to occur in real world scenarios, which should be taken into account. Overall, we suggest reviewing all tolerances to fully acknowledge minor deviations that do not make products unfit for use.
851	Table 44. Product description from the perspective of physical durability; 2939	Industry raises concerns regarding the number of washes presented in Table 44, determined based upon only one input provided by AITEX. Many studies and industry practices have found that the first five cleaning cycles show the most impact in terms of degradation of durability aspects. Industry calls the JRC to refer in terms of washing cycles to the data presented in PEFCR version 3.0. Moreover, an important aspect of intended use and specificities of the product itself is missing that should be factored into the number of washes, as well as the type of product itself. In the case of denim products, which are washed by consumers much less, this is not taken into account. Moreover, the industry would like to clarify if the drying is referencing machine drying or line drying. The latter would have an impact on the time needed for the testing (up to 30 days).
852	Table 44. Product description from the perspective of physical durability; 2939	The industry welcomes the JRC's analysis of the test methods and standards, however, wishes to raise its concerns that in some areas, proposed requirements exceed the industry target thresholds. In consequence, we would suggest revising the product categorisation table by considering types of fabrics as well as intended use (occasional wear, daily wear, and performance wear) or readapting proposed methods and standards to ensure they work on all kinds of products in the scope, such as through a closer alignment with the product categorisation and standards requirement from the PEFCR for apparel and footwear products. Moreover, from Table 44, it is unclear whether the proposed requirements also apply to products that have been made with recycled content or have been repaired or remanufactured. Overall, such products will often not be able to meet these high requirements. Setting lower requirements will not mean low quality, but instead 'high and realistic' quality requirements. The industry calls the JRC and the Commission to take into consideration the extensive work undertaken by the PEFCR for apparel and footwear 3.0 version on durability, in particular the proposal for distinction between sportswear and non-sportswear products, by providing additional testing methods and/or thresholds. Once the list of relevant ISO testing standards has been established, we furthermore suggest introducing flexibility to allow manufacturers to use other widely accepted international standards as long as they are equivalent to the standards listed.
853	Table 44. Product description from the	The test method listed for socks is a test method for gas cylinders. It should be replaced with EN 13770:2002 instead.

ID	Section & line	Comment
	perspective of physical durability; 2939	
854	9.2.1.3; 2939	Durability and comfort
855	9.2.1.3; 2939 Table 44	It is absolutely necessary to use the same categories as in PEFCR. This classification was adopted in Milestone 1, and that was the advice given by the industry. This unexpected change to another unsupported categorization leads to confusion and could jeopardize the uniform application of the ESPR requirements. It is unacceptable to have documents with different product groupings. In addition, for some categories there is only orthogonal or only knitwear (e.g. trousers and jackets) while there are also others. It is crucial to seek alignment between different legislations and policies as per the Better Regulation principles, for legal certainty, predictability, and avoiding unnecessary confusion and burdens for companies. This also ensures that environmental objectives are effectively pursued. The proposed categories are not representative of the sector and are not acceptable until they include a division based on the fiber composition, followed by a subdivision based on fabric weight and construction. We reiterate that we fail to understand how this observation is acknowledged in the case of denim but not for other categories. As we advised in the 1st milestone, the intended use and function should also be taken into consideration in the criteria.
856	9.2.1.3; 2939 Table 44	Durability thresholds: The adoption of fixed values could favor manmade fibers, whilst penalizing natural fibers, forcing mixes that are not always sustainable. Case studies could be presented to illustrate the impact of such choices on different types of fibres.
857	9.2.1.3; 2939 Table 44	As part of this task, the JRC must assess the resources required for the proposed testing approach, so that stakeholders can better understand and respond to the consultation. As part of this analysis, the big picture should be considered, including the available institutes/ laboratories capacities to perform the testing, and how the required measures balance out the desired impacts on the market. This does not prevent the economic assessment that will be performed as part of the Commission Impact Assessment.
858	9.2.1.3; 2939 Table 44	It is critical to consider the interaction between durability requirements and recycled content as these two factors are deeply related. If we increase the level of demand in one of the factors, we will be decreasing the other. It is important to search an equilibrium between these two factors and always consider the current technology. Section 9.2.1.3 and Table 44 do not indicate whether the new fibre's characteristics (minimum requirements) consider recycled content from mechanically recycled sources. Could you please clarify?
859	9.2.1.3; 2939 Table 44	There is not differentiation, in most cases, as per the fabric structure in each of the product categories. The differentiation between woven and knitted products is key to define both their testing parameters and thresholds. In the market most of the product categories exist with knitted and woven structure, and the properties thereof differ considerably. In the international market, the test for knitted differs from the woven and for this reason it is basic to breakdown both testing methods and thresholds per structure. For example, this is the case of product category 1 "trousers, shorts and skirts, excluding denim" where the tests methods correspond to woven products. In the market, there is a big offer of knitted trousers and Table 44 does not include them properly. This differentiation is key. Another notable aspect is the lack considering fabric weight when defining the minimum requirements. The fabric weight is one of the variables that most affect to the resistance of a fabric and so to its physical durability.
860	9.2.1.3; 2939 Table 44	Simulation of the ageing process – Number of washing cycles The experience shows is that it is not necessary to do 20 or 30 cleaning cycles to establish if a garment does not wear out as a consequence of repeated cleaning cycles. For example, in dimensional stability the main changes of dimension are produced within the first 3-5 cleaning cycles, where the garment releases all the internal tensions accumulated during the spinning and weaving. After 3-5 cleaning cycles the dimension of the garment stabilizes, and further cleaning cycles would have little effect on its dimensional change. Other failures as colour issues (staining or fading) comes up during the first cleaning cycles when the garment loses the residual colour not eliminated during the latest stages of manufacturing of the garment.

ID	Section & line	Comment
		Other remarkable point with the aging process with 20 or 30 washings is the timing and cost needed to complete the whole process, because if we do 20 or 30 washings in an accredited laboratory, the cost would be high and the time to get results would be also long. Regarding testing time, this approach is not operational since it would be time-consuming to carry out all the cleaning cycles. We have evaluated the time needed to accomplish the table 44 proposal with several accredited laboratories. As an average, applying 30 cleaning cycles (washings + dryings + ironings) in a shirt as defined in table 44, we would need 25 days to get the result for all tests. We acknowledge that table 44 proposal does not contemplate dryings and therefore the timings would be shorter, but the procedure would not simulate the real customer behaviour. Another key factor is the current capacity of testing laboratories to handle incoming requests if this approach is implemented. According to standards ISO 3759 for dimensional change or ISO 15487 for appearance, only one sample unit should be included in the washing machine during a cleaning cycle. These tests are performed before applying one cleaning cycle as per ISO 6330, which requires that only one unit along with ballast be analyzed. If the aging process involves many washings and the lab has numerous samples to analyze, it could significantly reduce throughput. A surge of customer requests for the same test could create bottlenecks and delaying lead times.
861	9.2.1.3; 2939 Table 44	The durability table presents several contradictions and methodological limitations.
862	Section 9.2.1.4; line 2939	Durability Testing Framework: The proposed durability requirements deviate from the Product Environmental Footprint (PEF) durability framework developed by the industry. It suggests a need for multiple tests on new products, followed by repeated testing after 20-30 wash cycles, imposing significant logistical and financial burdens, particularly on smaller manufacturers. Aligning with existing frameworks may ensure broader industry adoption and consistency.
863	9.2.1; 2939	The 'category descriptions from the perspective of physical durability' in table 44 (line 2939) must clearly reflect the technology of the fabric (knitted vs. woven) as this significantly impact 'Key Parameters (unit)', 'Test Methods', and ultimately the durability performance of the textile product. Unfortunately, the 'category descriptions' in table 44 are unclear and mix woven and knitted textile products. Further, table 44 does not clearly reflect the most common textile apparel failure modes and associated testing parameters as reflected in table 43 (line 2894). We strongly recommend JRC to use below table instead of the current table 44. Below table merges ID #1-9 from table 44 into one 'Category Description' that clearly reflects the importance of the technology of the fabric (knitted vs. woven) to enhance clarity, reduce complexities, and minimize the risk of misinterpretations. The below table also includes the standard Test Methods to identify the most common failure modes, like it includes Test Methods for swimwear, socks, and products with functional claim (Section 9.2.1.4. Line 2939. Heading 'Description of product technologies per category'. Topic: 'Table 44 – categories must reflect the technology of the fabric'). ID Category description Key Parameters (unit) and Test Method

ID	Section & line	Comment
		Characteristics of the new product Simulation of the ageing process 1 ID #1-9 (excluding socks) in table 44 (line 2939) For 'PU coated fabrics, only wash tests applies. Appearance After Wash (all textile products): ISO 15487: Method for assessing appearance of apparel and other textile end products after domestic washing and drying but only for the parameters related to durability and not for parameters related only to quality. From the JRCs Q&A, we understand that the characteristics of the new products are not minimum performance requirements and that these will be addressed in Task 6.

ID	Section & line	Comment
		If the Characteristics of the new product were JRCs recommendations for minimum performance requirements, these are unreasonably high and a significant number of textile products would not be able to meet these requirements, even if the products were produced solely with new synthetic virgin fibers – as the Characteristics of the new product are far from being 'fibre-neutral' as otherwise stated in line 2897-2900. When design options with potential market access values are being discussed in Task 6, we strongly recommend including the following factors in the discussion as these significantly impact the durability performance of a textile product: Materials composition (manmade vs. natural fibres) Mono vs. blends Surface treatment Weight (for woven products) Trade-offs with other product aspects (mainly recycled content and products that have been repaired, upgraded, refurbished or remanufactured).

ID	Section & line	Comment
		We strongly recommend applying 5 cleaning cycles to all product descriptions. For 'Jackets, and coats', 3 cleaning cycles. For "Dry clean only" products, 3 dry cleaning cycles. Our recommended number of cleaning cycles reflect that the purpose of the durability testing is to identify product failures, not to simulate the aging process. Dimensional Stability Shrinkage (all textile products): ISO 6330 for domestic washing and drying procedures for textile testing, or ISO 3175 for Professional care, dry-cleaning and wet cleaning, also according to the care label.

ID	Section & line	Comment
		ISO 5077 for the determination of dimensional change after washing and drying. Pilling (only knitted products): ISO 12945-1: Determination of fabric propensity to surface pilling, fuzzing, or matting. Part 1: Pilling box method. Fabric Tensile Strength (only woven products): ISO 13934-1 OR ISO 13934-2

ID	Section & line	Comment
		Fabric Bursting (only knitted products): ISO 13938-2 2 Swimwear All Key Parameters (unit) and Test Methods under ID #1 applies, excluding Pilling tests. In addtion, it is also important to test for colour change as swimwear must be able to withstand exposure to the various water influences:

ID	Section & line	Comment
		ISO 105-E03: Fastness to chlorinated water ISO 105-E04: Fastness to seawater 3 Socks All Key Parameters (unit) and Test Method under ID #1 applies, excluding Fabric Tensile Strength tests. In addition, it is also important to test for the determination of the abrasion resistance of knitted footwear garments: EN 13770 - method 1

ID	Section & line	Comment
		4 Additional tests to the general ones if a product has functional claims ISO 4920: Water repellency ISO 811: Water proofness ISO 9237: Wind proof
864	9.2.1.3; 2939	The durability assessment criteria lack clarity, and test methods should better align with real-world usage scenarios. Further clarity is needed in the durability assessment criteria to make them tailored to material-specific characteristics. The weight classes is another parameter missing, and which affects both woven and knitted fabrics. The weight of fabrics significantly influences the achievable thresholds. Furthermore, the proposed table fails to properly differentiate between different knitting technologies (such as jersey knitting, flat knitting, and seamless) which will also impact the final outcome.

ID	Section & line	Comment
		The fabric construction is another parameter missing. For example, open and fancy knitted fabrics are expected to perform notably worse than tight/simple constructions. The same principle also applies to woven fabrics. Moreover, the JRC proposal fails to consider the trade-offs between various durability aspects: taking the example of cellulose-based fabrics, optimizing them for high abrasion resistance may reduce dimensional stability and impact optical appearance. Or, as underlined by ECOS (2022), "higher density increases tensile and bursting strength but lowers the tear strength, longer floats increase tear strength but increase the risk for shrinkage in washing and knitted or woven products will mostly behave differently."
865	9.2.1.3; 2939	The methodology refers to intervals then the level of loss a grade is given. Intervals are proposed to reflect the loss of performances of garments between 0 or 1 washes (depending on the test) compared to results after 20 washes. We would like to understand how this calculation was decided as no minimum thresholds for durability are fixed. Only loss of performance is measured, meaning that the product is compared to itself (before and after washes) and the use is not taken into consideration. Also all parameters have the same ponderation on the final notation. "Characteristics of the new product": Table 44 sets thresholds per ISO test and product category; however, the thresholds are not used in the methodology afterwards and in effect, there is no minimum level imposed. It is therefore a question what is the aim of introducing this information without providing estimates for future requirement thresholds. "Simulation of the ageing process": DURHABI study has explored the impact of washing on products' performances. The conclusions have shown that the most relevant number of washes to assess the appearance is 15, and 5 to assess dimensional stability. We strongly support the number of washes set up by PEF and DURHABI as it has been proven as the most relevant for the end-of-life. Adding more cycles would only lead to additional costs and environmental impact.
873	9.2.1.3; 2939	Technical feedback on table 44: • Not feasible to reach grade 5 for cross staining: This is a result that is almost never given by laboratories even if colour stays the same due to scale used in the method. This is also not a reasonable level when considering different types of dyes etc. • Pilling resistance test: minimum grade 4 not reasonable after 2000/14400 cycles considering different types of fabrics consisting of varying fibre lengths and strengths. Same goes for pilling evaluation after multiple washes. • Colour change after wash: min. grade 4 not reasonable based on the number of washes proposed. Certain dyeing methods (not only indigo dyed fabrics) intentionally gives the fabric a naturally faded look before wash and then continuously after wash. This is a design option, e.g. for denim it is an integral part of its popularity among customers. • For bursting strength suggest using test area of 7.3 cm2 instead. • It is mentioned that a 5-step grading system is used for Assessment after wash of colour change, pilling, self-staining as well as assessment of CF to Sea Water and CF to Chlorinated Water. However, the scales used have half grades in-between as well, making it a 9-step grading system.

ID	Section & line	Comment
874	9.2.1.3.; 2939 ff	Fundamental objection: the product categories are not sufficient here, the intended use for example is missing as a key criteria: e.g. everyday dress versus evening dress, silk t-shirt versus cotton t-shirt, even the material aspects are missing, thus the ""characteristics of the new product"" are questionable Fundamental objection: the washing cycles should also take into account the material and intended use
875	9.2.1.3; 2939	Table 44: Importance of setting performance levels and testing requirements that are strictly needed to identify apparel failures: The industry is advocating for a solution that is scalable and affordable for all economic actors across the industry. The proposed levels by JRC/AITEX do not meet those requirements in anyway: the proposed approach that products shall be tested for the key test parameters both before and after multiple washing/drying cycles as well as suggesting up to 30 times washing cycles as suggested in Table 44, is not considering scalability, 3rd party lab capacity, efficiency, sustainability, and affordability – all these points are crucial to secure the success of the ESPR. Contrary, industry experience shows that most product failures can be detected after 5 wash cycles, therefore 30 wash cycles will put significant test burden on the industry - tests that would not be needed to detect the most prominent failure modes. Product testing is a time-consuming and costly undertaking, both economically and environmentally, so regulating non-necessary testing should be avoided.
876	9.2.1.3; 2939	Table 44: Risk based approach to testing Given the number of tests to be undertaken anticipated, it will be critical to adopt a risk-based approach for ensuring compliance with eco-design measures, as applied under the REACH Regulation or the General Product Safety Regulation. This will ensure efficiency and effectiveness by minimising bottlenecks at test facilities, discarded test-products, administrative burdens, and potentially higher consumer prices. Table 44/JRC 4th milestone does not add any view on if a risk-based approach to compliance testing is possible/foreseen - this must be considered in the consecutive work of the JRC/preparatory study.
877	9.2.1.3; 2939	Table 44; Cannot look at testing only, to ensure durable products: The durability of the product will not only depend on the results from the physical tests performed, it will also depend on the product's design, fit and making. There are different ways to secure that the product is durable over time, for example a lightweight fabric with a lower tensile strength could still be used for a product with a more loose fit/design - and still be durable. This is not possible to capture when looking at test results only.
878	9.2.1.3; 2939	Table 44: Review critically if mandatory eco-design requirements should be based on ISO 15487: The standard test method for evaluating product appearance (ISO 15487) is a method that has a lot of flaws as it is written today (for example difficulties in evaluating appearance, colour change, pilling at 1.2m distance). The method is not widely used for this purpose today, but rather for evaluating fabric creasing and seam puckering. The method will be up for revision during 2025, but until the method is improved, we advise to be cautious in setting market access requirements referring to the current standard version (ISO 15487-2018). If referring to this method it needs to be clearly specified which clauses and grading system to follow.
879	9.2.1.3; 2939	Table 44: The category description in table 44 does not follow similar manufacturing processes, does not have similar functions, and does not count with similar main failure modes as the category descriptions in table 44 mix knitted and woven products and does not reflect how the product's composition (man-made vs natural fibers and mono materials vs. blends), and surface treatment (for example raised, brushing, and peach) significantly impact failures and the durability performance of the product. We strongly recommend addressing psychical durability by focusing on the ISO test standards for identifying the most common failures. The following table outlines the most frequent failure modes in textile products and fabrics, along with recommendations for standards to guide enforcement and ensure compliance. Additionally, the table indicates whether the durability requirement should be measured at the level of the final product or the fabric

ID	Section & line	Comment
		and specifies the categorisation of the material type for which the requirement should be established. We recommend replacing table 44 in the JRC 2nd milestone report - please see directly shared with JRC. For each test standards, the fabric construction (woven vs. knitted) and scope (final product vs. fabric) must be defined to avoid loopholes. We strongly recommend JRC to apply clearer definitions to table 44 to avoid loopholes and to ensure that all product groups are included. This includes tailoring as well as allowing the flexibility to include new products that do not fit clearly into one specific category.
880	9.2.1.4; 2939	Table 44 – Importance of setting performance levels and testing requirements that are strictly needed to identify apparel failures. The sector is advocating for a solution that is scalable and affordable for all economic actors in the industry. The proposed levels by JRC/AITEX do not meet those requirements in anyway. The proposed approach that products shall be tested for the key test parameters both before and after multiple washing/drying cycles as well as suggesting up to 30 times washing cycles as suggested in Table 44, is not considering scalability, 3rd party lab capacity, efficiency, sustainability, and affordability – all these points are crucial to secure the success of the ESPR. Contrary, industry experience shows that most product failures can be detected after 5 wash cycles, therefore 30 wash cycles will put significant test burden on the industry - tests that would not be needed to detect the most prominent failure modes. Product testing is a time-consuming and a costly undertaking, both economically and environmentally, so regulating unnecessary testing should be avoided.
881	9.2.1.4; 2939	Table 44 - The report on lines 422-426 affirm that the list of categories defined in the PEF framework will be used. However, table 44 use another list of product's categories. The durability proposal should follow the PEF approach with some adjustments. Besides, product categories need to be related to the PRODCOM code for legal certainty. Some products, like "leggings," are currently in different product groups. For instance, leggings fall under category 8 "Hosiery," but they would be better categorized as "trousers" if a knitted trousers category is created. In line with the above, and considering the similarity in structure, properties and functionality, we understand that the category 5 "Shirts" and 6 "Blouses and woven dresses" should be merged in a single category. This simplification was also carried out in the physical durability procedure of the PEFCR 3.0 where shirts and blouses are in the very same category.
882	9.2.1.4; 2939	Table 44 - There is not differentiation, in most cases, as per the fabric construction (woven vs knitted) in each of the product categories. Clarity is needed. The differentiation between woven and knitted products is key to define both their testing parameters and thresholds. In the market most of the product categories exist with knitted and woven structure, and the properties thereof differ considerably. In the international market, the test for knitted differs from the woven and for this reason it is basic to breakdown both testing methods and thresholds per structure. For example, this is the case of product category 1 "trousers, shorts and skirts, excluding denim" where the tests methods correspond to woven products. In the market, there is a big offer of

ID	Section & line	Comment
		knitted trousers and table 44 does not include them properly. This differentiation is key, and it has been considered in the physical durability procedure of the PEFCR for Apparel and Footwear. Another notable aspect is the lack considering fabric weight when defining the minimum requirements. The fabric weight is one of the variables that most affect to the resistance of a fabric and so to its physical durability. As similar to the fibre neutrality approach, a procedure where minimum requirements are set to accommodate most fabric weight with specific thresholds with lower/higher demands for certain weights would be more practical, scalable and feasible.
883	9.2.1.4; 2939	Table 44 – key parameters: • Pilling resistance assessment is required for product category 2 “Denim trousers, shorts and skirts” when this parameter is not a typical failure mode associated with this type of denim fabric. For this reason, we recommend erasing this parameter. • Seam strength has not been identified as a common cause of apparel failure by Cooper and Claxton. Besides, ISO 15487 already assesses aspects like seams. For this reason, we recommend erasing this parameter.
884	9.2.1.4; 2939	Table 44 – Test methods. Some of the testing methods proposed or their method conditions are not very in line with the international market practice. • Tensile strength is commonly analysed by the ISO 13934-2:2014. • Pilling resistance as per the standard “ISO 12945-1:2020” is proposed for product categories 3 “Sweaters”, 4 “T-shirts”, 7 “Jackets”. This ISO standard recommends applying 7200 cycles for knitted fabric with carded yarns; and a number of cycles between 10800 and 14400 for knitted fabrics with combed yarns. The usual practice based on the experience at international level is to apply 10800 cycles rather that the 14400 proposed by table 44. Besides, these values are not aligned with the approach taken to evaluate the pilling resistance on the remaining product categories 1, 2, 5, 6 and 7, where the number of cycles proposed is 2000 cycles, which is more reasonable, aligned with the international practice and didn’t proposed the maximum number of cycles included in the standard ISO 12945-2:2020 (7000 cycled). For these reasons, we understand that the 14400 cycles proposed in table 44 for categories 3, 4 and 7 to evaluate pilling resistance are too excessive. • Bursting resistance (ISO 13938-2:2019), the table 44 for this testing method specifies the use of a sample holder of 50 cm2 in most categories with this parameter excepting category 8 “Hosiery” with 7.3 cm2. The international market practice applying this method is to use 7.3 cm2. This has to do with the dimensions of the garments, since in certain contexts, a garment can contain components with low surface that can´t be analysed with a 50 cm2 sample holder. Therefore, the use of a sample holder of 7.3 cm2 is more usual and operative. For this reason, we strongly recommend the use of 7.3 cm2 also contemplated in the standard. • Colour fastness to light. It is needed to specify more in detail the method conditions for the standard “ISO 105 B2:2014” included in product category 10 “Swimwear”. This standard includes 5 different methods. The application of these different methods within the same standard can lead to very different results when analysing the same sample whereby it is important to specify in detail the method to apply and the conditions thereof. In this sense, the most usual is method 2. This method is commonly adopted at international level to evaluate this parameter. Besides, we understand that to evaluate this parameter after 15 washing cycles has no sense since the colour fastness for this case depends on the dye chromophore, that is not alter by repeated washings but the light exposure during the testing. • Colour fastness to chlorinated water, included in the category “swimwear”. For the standard “ISO 105 E03” it is relevant to specify the concentration of the active chlorine solution (20 ppm, 50 or 100 ppm) and consider this concentration to set the thresholds because they are very dependable on the active chlorine concentration. In this sense, we recommend the most usual active chlorine solution concentration used in the market which is 50 ppm. For other hand, we do not see how the ageing process is relevant for thie parameter as the concentration of chlorine solution of 50 ppm is used, simulating in

ID	Section & line	Comment
		somehow multiples uses in the swimming pool as its usual concentration of chlorine is between 1 and 3 ppm. • For all colour fastness parameters listed in table 44 is convenient to specify if the thresholds are for colour change or staining. We understand that these thresholds are related to colour change since colour staining is not a variable related to the durability of the colour, but a quality issue that can stain other garments during the washing procedure. However, please clarify it. • Regarding the parameter "elasticity of fabrics" set on product category 10 "Swimwear", the standard defined is the ISO 20932-3:2018. It is important to stand out that this standard applies on narrow fabric, so the specified threshold is applicable on narrow trims, such as elastic band, shoulder straps, binding, etc. instead of the fabric. If the aim is to verify the elasticity of the fabric, the standard should be the ISO 20932-1:2018 instead. • Regarding the parameter tensile strength "ISO 13934-1:2014" applied on product category 2 "denim trousers", it is noted that there is a threshold on seams "transversal≥130N (on seam). This test, in the market, is aimed at checking the tensile resistance of the warp and weft of the fabrics and not on seams. To evaluate the performance of seams there are other test methods more specific as, for example, the seam slippage by ISO 13936-2:2004. • For the evaluation of ISO 15487:2018, it is essential to clearly define the term "self-staining" to avoid confusion with "cross staining." Additionally, providing a detailed definition of "trimming" would be beneficial.
885	9.2.1.4; 2939	New product characteristics & proposed performance levels. First, clarification on the definition & what is meant by a "new product" is needed. The proposed framework implies that a 'new product' should perform to the highest grade possible after being subjected to a physical test. Only because the product is unwashed/unused does not mean that this is what is reasonable to expect. There are very few cases where a fabric/product would have no change in appearance or performance after being tested. The practise is that all physical tests are usually performed on a product or fabric before it has been washed (except for of course test connected to the wash performance such as dimensional stability & appearance). Second, Table 44 sets thresholds per ISO test & product category; however, the thresholds are not used in the methodology afterwards & in effect, there is no minimum level imposed. It is therefore a question what the aim of is introducing this information without providing estimates for future requirement thresholds. Third, some of the characteristics are by far over the international market practice, for example: •Pilling by ISO 12945-1:2020 (categories 3 & 5) with a grade of ≥4 with those 14400 cycles & pilling resistance for woven, ISO 12945-2.2020 with a grade of ≥4 in categories: 1, 2,5, 6 & 7. This grade≥ 4 can be unachievable for some materials such as fleeces & wool based products & specially more difficult when the products contain recycled materials. This question was addressed in the durability procedure of the PEFCR, lowering down the thresholds to a reasonable extent so that material made of this type of fibers (wool, cashmere, mohair, silk or recycled materials) could comply with the requirements. This approach can be complemented with additional specific breakdown of thresholds for certain fibres (wool, mohair, viscose…among others) if needed. •Abrasion resistance. According to table 44, this parameter is applied to the categories 5, 6 & 7 by the standard ISO 12947-2: 2016. The thresholds for categories 5 & 7 are ≥20.000 cycles while for category 6, ≥15.000 cycles. These thresholds are excessive & by far over the market practice for an average product. We recommend following a more aligned threshold in line with the market expectations. •Dimensional change with a threshold of ±3% for the product category 8 "hosiery" is more demanding than the international market practice for average products in this category whose base structure is typically knitted, & this may entail a technical difficulty. •For all product categories, adhering to the dimensional change thresholds presents a challenge due to the technical feasibility of meeting the ±3% & ±5% values outlined in Table 44, particularly for products made from viscose or wool. This type of fibers has lesser intrinsic tenacity than others as synthetics whereby the compliance with these above thresholds can be very challenging.

ID	Section & line	Comment
		•Colour fastness to light, for product category 10 "Swimwear", is more demanding in comparison to the international market practice for an average product of this category. Swimwear is often constructed from nylon/elastane blends & frequently incorporates bright or fluorescent colours to align with trends or enhance visibility & safety in water. However, achieving a grade 5 colourfastness for certain bright or fluorescent shades is technically unfeasible for this product category. •The thresholds defined for the testing method ISO 15487:2018, specially for trimmings aspect & "self-staining" for all product categories with grade 5 are not fulfillable. A grade≥5 means no visible change, & this is unrealistic to assume since any product after a cleaning cycle will suffer a very slight change that can lead to a grade below 5. Besides, we must consider that this a human vision assessment & the achievement of a grade 5 is almost impossible. A minimal slight change after the cleaning cycle makes the operator lower down the assessment doing the grade 5 extremely challenging to get & impossible to achieve after 20 or 30 repeated cleaning cycles. •Not feasible to reach grade 5 for cross staining. This is a result that is almost never given by laboratories even if colour stays the same due to scale used in the method. This is also not a reasonable level when considering different types of dyes etc. •Colour change after wash: min. grade 4 not reasonable based on the number of washes proposed. Certain dyeing methods (not only indigo dyed fabrics) intentionally gives the fabric a naturally faded look before wash & then continuously after wash. This is a design option, e.g. for denim it is an integral part of its popularity among customers. •It's mentioned that a 5-step grading system is used for Assessment after wash of colour change, pilling, self-staining, & assessment of CF to Sea Water & CF to Chlorinated Water. However, the scales used have half grades in-between as well, making it a 9-step grading system.
886	9.2.1.4; 2939	Table 44 – ISO 15487 is a method that includes a wide range of different parameters. It needs to be clearly specified which clauses and grading system to follow for the durability proposal. Besides, the method will be up for a revision during 2025, and the specifications are needed to later review the proposal if needed.
887	9.2.1.4; 2939	Table 44 – simulation of the ageing process; number of washing cycles; implications of test capacity. It is important to understand the difference between wash cycles needed to appreciate a garment's overall physical durability, including its failure modes, and how many wash cycles it would actually last in the use phase. Equally important is to understand that only washing, without wear cycles in between, will not correctly simulate a garment's ageing process. Most garments are stretched and exposed to humidity and other external factors when used in between washes and, in particular for cellulosic fibres (cotton, MMCF), this will have a huge impact on the results from proposed testing. The experience says is that it is not necessary to do 20 or 30 cleaning cycles to discriminate if a garment does not wear out as a consequence of repeated cleaning cycles. For example, in dimensional stability the main changes of dimension are produced within the first 3-5 cleaning cycles, where the garment releases all the internal tensions accumulated during the spinning and weaving. After 3-5 cleaning cycles the dimension of the garment stabilizes, and further cleaning cycles would have little effect on its dimensional change. Other failures as colour issues (staining or fading) comes up during the first cleaning cycles when the garment loses the residual colour not eliminated during the latest stages of manufacturing of the garment. Other remarkable point with the aging process with 20 or 30 washings is the timing and cost needed to complete the whole process, because if we do 20 or 30 washings in an accredited laboratory, the cost would be high and the time to get results would be significantly increased. For one hand, regarding testing time, this approach is not operational since it would be time-consuming to carry out all the cleaning cycles. We have evaluated the time needed to accomplish the table 44 proposal with several accredited laboratories. As an average, applying 30 cleaning cycles (washings

ID	Section & line	Comment
		+ dryings + ironings) in a shirt as defined in table 44, we would need 25 days to get the result for all tests. We acknowledge that table 44 proposal does not contemplate dryings and therefore the timings would be shorter, but the procedure would not simulate the real customer behaviour. Another key factor is the current capacity of testing laboratories to handle incoming requests if this approach is implemented. According to standards "ISO 3759:2011" for dimensional change or "ISO 15487:2018" for appearance, only one sample unit should be included in the washing machine during a cleaning cycle. These tests are performed before applying one cleaning cycle as per "ISO 6330:2021," which requires that only one unit along with ballast be analyzed. If the aging process involves many washings and the lab has numerous samples to analyze, it could significantly reduce throughput. A surge of customer requests for the same test could create bottlenecks and delaying lead times. The proposed durability framework is expected to put a huge strain in lab capacity and likely to increase led times significantly. How does the JRC see the lab capacity and lead time connected to testing up to 30 washes for all products placed on the EU market and has the JRC undertaken any capacity mapping done of current status? We believe undertaking such a mapping, including calculating the expected use of energy and water purely in testing, will be critical to undertake before concluding on mandatory durability requirements under the ESPR. Our understanding is that this level of wash cycle requirements will increase cost and lead time significantly, and that such test capacity does not exist today. Requiring wash testing before and after ageing process will add significantly lead time and cost as well, especially if such testing should be done on each product category. Therefore, the industry strongly recommends that product testing is to be done on a risk-based approach.
888	9.2.1.4; 2939	Table 44 – Risk-based approach is needed. Given the number of tests to be undertaken anticipated, it will be critical to adopt a risk-based approach for ensuring compliance with eco-design measures, as applied under the REACH Regulation or the General Product Safety Regulation. This will ensure efficiency and effectiveness by minimising bottlenecks at test facilities, discarded test-products, administrative burdens, and potentially higher consumer prices. Table 44 nor Task 4 does not contemplate the possibility of performing a risk-assessment which is the normal practice in product compliance regulation. A risk assessment allows to effectively screen out what is risky from what is not in terms of compliance with the procedure. A good evaluation risk focuses better on the real or potential risks, making the procedure efficient, because the timing needed to manage the tests is lesser, and cheaper, as the number of products to be analysed is reduced. For example, in category 10 “swimwear” where colour fastness to light, sea water or chlorinated water are defined with their corresponding thresholds, the analysis of colourless or white colours would not have sense since the possibility of non-compliance would be very low. Another example would be the analysis of seam strength in loose garments. In these cases, the possibility of non-compliance would be also very low and therefore their analysis would only imply an unnecessary expense. The affordability of the process is a key aspect to consider respecting the economic principle avoiding serious consequences for the competitiveness of the European textile industry.
889	9.2.1.3; 2939 Table 44	Providing incentives and support for companies that adopt sustainable production practices and focus on creating durable products will yield far greater results than imposing expensive and challenging testing regulations. The method suggested in the study for evaluating this durability incurs significant costs that may not justify the associated benefits. It would be worthwhile to explore more cost-effective alternatives that can deliver similar insights without placing an undue financial burden. The number of washing cycles listed in table 44 seems very high to us. 20-30 washing cycles meet industrial standars. For household laundry, standardization selects between 3 and 5 washing cycles. EN ISO 15487 describes 4 washing cycles. The EU Ecolabel textile provides for 3 washing cycles. The high number of 20-30 washing cycles is also problematic for the manageability in the test laboratories, as companies have to wait longer for test results; furthermore, the environmental impact and ultimately the costs are also increasing. The choice of test parameters for various product categories raises some valid concerns. It is necessary to distinguish the production method such as weaving, knitting, felting.

ID	Section & line	Comment
		Textiles are aligned with current legal regulations, in particular REACH. Parameters that are defined today for durability can no longer be achieved in the near future, because chemicals such as dyes are restricted according to REACH, and then substitutes have to be used that influence the properties of the end products and can therefore no longer achieve the required benchmarks. That's why it's better to define bandwidths than benchmarks. Furthermore we draw your attention to a significant area of concern regarding the database composition. The study heavily relies on data from a single European textile competence center, whereas other prestigious textile research institutes across Europe, such as those in Braga, Lyon, Ghent, Mönchengladbach, Reutlingen, Gothenburg/Borås etc. were not incorporated. Many of these institutions possess a wealth of data, some of which may challenge the assumptions presented in the study. To establish a robust scientific foundation, it is crucial to engage these competence centers comprehensively, ensuring that the data used is both balanced and reflective of the broader textile research landscape.
890	Table 44; 2939	Chantelle, with 150 years of experience in lingerie and corsetry and a company recognized in Europe and internationally, is convinced that the DURHABI works are the most comprehensive and reliable for proposing a scientific and robust methodology that enables the measurement of product durability in use. As a brand and manufacturer, but also as a technical expert, Chantelle actively participated in the DURHABI project. We therefore urge the JRC to study this project, which will allow us to communicate simply with consumers. Indeed, DURHABI has brought together more than 80 brands that participated in the project for over 2 years, thanks to the interest and financial support of [...], ensuring clear and transparent governance. From a quality perspective, DURHABI allows us to further pursue a logic of continuous improvement, which is reflected, among other things, in the accreditation process of our internal laboratories according to the ISO-17025 standard. Furthermore, the deliverables of DURHABI, such as the test reference frameworks by product category, now allow Chantelle to evolve its specifications to take them into account in the design of new collections. On the other hand, we wish to draw your attention to the methodology proposed by AITEX, which, according to our expertise, does not seem complete and relevant. In particular, in the underwear category, only lower body items (briefs, panties, thongs, etc.) are taken into account. Bras, and by extension derivative products such as camisoles and bodysuits, are not included. Regarding the performance calculation, the % performance loss values were established based on imprecise studies or works, or whose sources are not shared. On the contrary, the method advocated by DURHABI aims to be transparent and is based on several thousand tests conducted by multiple independent, recognized, and certified laboratories, as well as large-scale consumer studies.

ID	Section & line	Comment
		Finally, as proof of the reliability of this work, a French standard has just been published, partly by BNITH in February 2025. Work at the European level with CEN is also underway. This comment is in link with the following document ESPR_IFTH DURHABI proposition_supporting brands' mail_fev20025.pdf sent by Gaëlle Courage (IFTH).
891	9.2.1.4; 2939 ff	"Fundamental objection: the product categories are not sufficient here, the intended use for example is missing as a key criteria: e.g. everyday dress versus evening dress, silk t-shirt versus cotton t-shirt, even the material aspects are missing, thus the ""characteristics of the new product"" are questionable Fundamental objection: the washing cycles should also take into account the material and intended use"
894	9.2.1.4; 2939	Table comments : Category description : - In the category description column : it is necessary to have the information about knit or woven. - The knit trousers and skirt are missing - The sweaters and knitted dresses should be separated. - It should be a category with knitting dresses and skirts. - Underwear : what about bras, panties, body female lingerie, etc ? - Hosiery : leggings should be in the knitted pant category - Jackets & coats : what about the woven one ? - Woven blouses could be grouped with shirts Test method column : - dimensional change : it should the ISO 5077:2007. It is the general test method - tensile strength : we suggest to use the ISO 23934-2:2014 because it determines the maximum force using the grab method (directly on final product)

ID	Section & line	Comment
		- bursting resistance : we suggest to take sample 7,3 cm^2 instead of 50 cm^2. Some small garment don't have enough surface to cut 50 cm^2. - pilling resistance ISO 12945-1 : we suggest to conduct the test for 3h - 10 800 cycles - abrasion resistance ISO 12947-2 : we suggest to add the value of the nominal pressure 9 kPa. We suggest to precise the failure step to stop the test (ex : breakdown of 2 yarns) - seam resistance ISO 13935-2 : we suggest to follow the ISO 13936-2 which is more relevant for the real use of the product - Abrasion resistance for socks : it is not an ISO, it is an EN. - Elasticity of fabric : you need to precise the method used. We suggest the "A method". Simulation of the ageing process : - We suggest to follow the number of washes determined by the DURHABI study. Indeed, they analysed product on 60 washes, and concluded that discrimination failures appears from 15 washes. Except for jackets & coats : it appears at 5 washes.
896	9.2.1.4; 2939, table 44	We strongly suggest using product categories, which better reflect the commercial categories used by the industry for a long time. It is also fundamental, that subcategories (woven and knitted) will be added to certain product groups. This would reflect the fact, that knitted and woven products have different characteristics, and should be tested differently. And only by doing so, the highly debatable proposed fibre neutrality could work in the quality framework. This perspective is being considered in CEN TC 248/WG39 working on a document on min. quality requirements for apparel. Trousers, shorts, overalls (excluding denim) woven knitted Skirts, dresses woven

ID	Section & line	Comment
		knitted Denim apparel (woven) Sweatshirts, mid-layers (knitted) T-shirts (knitted) Knitwear (knitted) Shirts, blouses woven knitted Jackets, coats Hosiery (woven) Underwear Swimwear

ID	Section & line	Comment
		Rainwear Sportswear should be included in all categories OR considered separately. We agree to the exclusion of accessories from the ESPR product categories, as this would increase product categories too much and further complicate the process.
897	9.2.1.4; 2939, table 44	Test methods: Add EN ISO 3175-1 for professional cleaning where necessary. Trousers product group: Change EN ISO 3759 to EN ISO 5077 Add EN ISO 12947-2 for abrasion resistance, which is important for trousers Consider whether instead of testing seam strength with EN ISO 13935-1 it would be better to measure seam slippage, which seems to be a more common failure EN ISO 13936-2 Skirts, dresses: add seam slippage EN ISO 13936-2 (same reasoning as for trousers) Denim: Add abrasion resistance EN ISO 12947-2 consider adding colour fastness to rubbing as a test method, as new denim products often “bleed” colour, EN ISO 105-X12 Pilling maybe not a critical aspect for denim

ID	Section & line	Comment
		Coats: winter coats must be taken into consideration as well. Add EN ISO 11092 for testing thermal resistance, when necessary Rainwear: add hydrostatic pressure test EN ISO 811 T-shirts: add to visual inspection spirality after wash, which is an important failure in this category. Shirts, blouses: add seam slippage EN ISO 13936-2 and remove seam strength Hosiery: add test for snagging to hosiery when ISO work ready ISO AWI 25086-1 and 2 Swimwear: add test for snagging to swimwear when ISO work ready ISO AWI 25086-1 and 2
910	9.2.1.3 (page 109); 2939	Table 44 - Dimensional change for woven fabrics (%): Thresholds in the Preparatory Study: Trousers, shorts and skirts: ±3%

ID	Section & line	Comment
		Shirts: ±3% Blouses and woven dresses: ±3% Achieving the thresholds presented in the PS for textiles from regenerated cellulose fibers alone is unrealistic without blending them with other fibers, such as polyester. However, such blending would have significant implications: - User comfort and perceived quality: Regenerated cellulose fibers are valued for their softness and skin-friendly properties, which could be compromised. - Recyclability – Increased synthetic content would hinder the ease of recycling. - Economic feasibility of recycling – Higher synthetic content complicates recycling processes and increases costs. - Impact on the European fiber industry – The European market includes specialized producers of regenerated cellulose fibers designed for monomaterial applications. Textiles made from these fibers would not be able to comply with such stringent thresholds. It is important to recognize that monomaterial textiles made from regenerated cellulose fibers, or blends containing only minimal amounts of other fibers (e.g., elastane), still represent approximately one-third of textile products, aligning to some extent with the statistics on blends presented in the PS. Currently, Europe has only one remaining large-scale industrial producer of these fibers for the textile sector, and, more broadly, only a few European fiber producers still supply the highly cost-sensitive textile market. Setting dimensional stability thresholds that are inherently misaligned with the physical properties of regenerated cellulose fibers would pose a significant challenge. These fibers are known for their soft and smooth texture, which makes them highly desirable for consumers. Introducing synthetic components to meet dimensional stability thresholds would fundamentally alter their key value propositions, diminishing the very comfort attributes that drive consumer demand. Recommended thresholds for dimensional change of woven fabrics: Standard-quality textiles: $6\% < x \leq 8\%$ Enhanced-quality textiles: $4\% < x \leq 6\%$ Premium-quality textiles: $x \leq 4\%$ Among regenerated cellulose fibers, lyocell performs best in this regard due to its higher crystallinity within this fiber group. However, even for lyocell, reaching a 3% threshold is attainable only in premium-quality products, which remain out of reach for most consumers.

ID	Section & line	Comment
		It is also important to emphasize that recommended thresholds are not designed for textiles made from synthetic fibers. Given the fundamentally opposing characteristics of synthetic and regenerated cellulose fibers, applying the same benchmarks to both would be impractical—what is barely achievable for one may not even be ambitious for the other.
911	9.2.1.3 (page 109); 2939	Table 44 - Abrasion resistance for woven fabrics (%): Thresholds in the Preparatory Study: Trousers: / Shirts: ≥ 20,000 Blouses and woven dresses: ≥ 15,000 Jackets and coats: ≥ 20,000. It appears inconsistent that the preparatory study sets high abrasion resistance requirements for shirts and blouses while omitting such criteria for trousers. Given that trousers typically endure greater friction and stress—particularly in high-wear areas such as the knees, thighs, and seat—this distinction warrants further clarification. Aligning abrasion resistance thresholds with the actual demands placed on different garment types would enhance the coherence and practicality of the requirements. The thresholds for abrasion resistance set for shirts and blouses intended for everyday wear appear to be highly unrealistic. Notably, the [...] benchmarks abrasion resistance for workwear at 15,000 cycles. The high expectations for abrasion resistance appear to be at odds with the requirements for maintaining visual appearance after washing (e.g., preventing fibrillation in fabrics to avoid color changes). Striking a balance between these factors is particularly challenging for fabrics made from regenerated cellulose fibers and requires careful consideration. A fundamental question arises: should the priority be optimizing fabrics for dimensional stability and visual appearance after washing, or enhancing abrasion resistance for a product category where such high thresholds are not essential for casual wear? Achieving both simultaneously is not always feasible. The chemistry used in finishing regenerated cellulose fiber fabrics plays a crucial role in abrasion resistance, particularly with the adoption of newer zero-formaldehyde resins. It is common to observe initial abrasion resistance figures below 5,000 revolutions; however, after washing and the removal of softeners, abrasion resistance can improve significantly—sometimes by as much as 5,000 to 10,000 revolutions.

ID	Section & line	Comment
		While fabrics made from viscose and modal can meet these thresholds, lyocell fabrics—especially those with lower fabric weights—face substantial challenges. The chemical treatments required to meet dimensional stability thresholds and prevent fibrillation (as assessed through visual inspection) can have a negative impact on abrasion resistance. Moreover, abrasion resistance is strongly influenced by multiple factors, including fabric weight, finishing chemistry, yarn type, yarn count, and fiber linear density (dtex), among others. Recommended thresholds for abrasion resistance: Standard-quality textiles: 4,000 < x ≤ 8,000 Enhanced-quality textiles: 8,000 < x ≤ 12,000 Premium-quality textiles: x > 12,000 Displacing lyocell fabrics from the market or necessitating their blending with synthetic fibers—thereby diminishing the value proposition of pure lyocell textiles, known for their exceptional comfort and soft hand feel—would have negative implications for the European fiber and specialized textile industry. Many European manufacturers rely on lyocell fibers to differentiate themselves from mass-produced Asian commodity textiles, making it crucial to ensure that regulations and thresholds account for these desirable properties.
912	9.2.1.3 (page 109); 2939	Table 44 - Dimensional change for knitted fabrics Thresholds in the Preparatory Study: Sweaters, mid-layers and knitted dresses: ±5% T-shirts and polos: ±5% Underwear: underpants and boxes: ±3%

ID	Section & line	Comment
		When underwear and T-shirts use similar materials and constructions, a stricter requirement for underwear seem arbitrary or overly restrictive. It is unrealistic to achieve the value of ±3% for knitted fabrics made from 100% regenerated cellulose fibers (including lyocell, modal, and viscose). A 100% lyocell fabric may achieve 5% if all processing steps, from yarn to garment making, are perfect. Fabrics made of 100% viscose and modal do not stand a chance of reaching these limits. For instance, 100% viscose fabrics typically exhibit dimensional changes exceeding 10%, a characteristic inherent to the fiber. Many manufacturers may be unwilling to absorb the high processing costs required to bring a commodity fiber like viscose within an acceptable range. Recommended thresholds for dimensional change of knitted fabrics: Standard-quality textiles: $10 < x \leq 12\%$ Enhanced-quality textiles: $8 < x \leq 10\%$ Premium-quality textiles: $x \leq 8\%$ A significant proportion of European specialty modal and lyocell fibers are used in knitted applications, particularly in underwear and shirts, due to their exceptional comfort properties. Mandating their blending with synthetic fibers would have a substantial negative impact on their value proposition. These fibers are specifically chosen for their absorbency and skin-friendly qualities, which would be compromised by the introduction of synthetic component. It is crucial that EU regulations do not inadvertently displace European-produced fibers in the form of knitted textiles from the market. Europe has a strong tradition of producing fine, delicate materials, and regulatory frameworks should ensure a level playing field rather than favoring mass-produced commodity textiles from abroad over European specialties. From a strategic perspective, maintaining a supportive environment for high-quality European fiber and textile production aligns with the region's broader goals of innovation, sustainability, and economic resilience.
913	9.2.1.3 (page 109); 2939	Table 44 - Pilling resistance for woven and knitted textiles Thresholds in the Preparatory Study:

ID	Section & line	Comment
		Woven: Trousers... ≥4 Denim trousers... ≥4 Shirts... ≥4 Blouses... ≥4 Jackets... ≥4 Knitted: Sweaters ... ≥4 T-shirts ... ≥4 Hosiery... / Underwear... / Swimwear... / Hosiery, underwear, and swimwear are among the most friction-prone garments due to frequent movement, body contact, and washing. Pilling can significantly affect their appearance and comfort. If pilling resistance is required for knitted sweaters and T-shirts, it is unclear why underwear and hosiery—often made from similar knitted fabrics—would be exempt, with pilling assessed only through visual inspections. Mandating a pilling resistance of ≥4 for all textile products placed on the EU market is an unrealistic expectation.

ID	Section & line	Comment
		Where do the pilling degree thresholds originate? They are high, even exceeding the suggestions in the cited literature by Cooper and Claxton. Additionally, AITEX's knowledge lacks transparency as a reference in such a decisive matter. Fabrics made from regenerated cellulose fibers inherently struggle to meet this threshold, which could have significant consequences for the European fiber and textile industry. It is also essential to consider the influence of different fabric constructions. By nature, a sateen weave is more prone to pilling than a plain weave, and raised surfaces will inevitably yield lower pilling resistance values. Recommended thresholds for pilling resistance of fabrics: Standard-quality textiles: $2 \leq x < 3$ Enhanced-quality textiles: $3 \leq x < 4$ Premium-quality textiles: $x \leq 4$
914	9.2.1.3 (page 109); 2939	General remarks on the definition of durability: Durability must be defined holistically and in a scientifically sound manner, or replaced by a metric that more effectively addresses textile waste generation and its environmental impact. 1. A holistic approach to durability is essential because it addresses all the primary reasons why users discard textiles, especially since the majority of textiles are disposed of before reaching the end of their usable life. 2. Scientific evidence and scientifically sound methods for assessing durability should be employed, ensuring their verified impacts to effectively meet the objectives established by the EU. Currently, there is a significant gap in the scientific evidence needed to thoroughly define both the physical and emotional durability of garments.

ID	Section & line	Comment
		3. It is unclear how you recommend using the physical durability information. Consumers deserve to be empowered with accurate information while safeguarding the EU's credibility and trust is essential. It is recommended to ensure adherence to the principles of the Empowering Consumers for the Green Transition initiative and the Green Claims Directive by avoiding vague, generic claims like "This product is durable." Instead, clear and specific information (e.g., "This product has an abrasion resistance of X cycles, tested to standard Y") should be provided to help consumers understand durability in context. Setting thresholds and categorizing products that do not meet them as inferior is not the optimal approach. Overengineered fabrics are not necessarily resource-efficient, and in certain contexts—such as office work—a blouse does not require a high number of abrasion resistance cycles, as it is unlikely to reach those limits over its lifetime. As durability is something consumers experience directly, recommending an unsubstantiated score that may fail to deliver in practice could risk undermining the EU's credibility and trust. 4. It is important to consider tailoring to material-specific characteristics, managing durability trade-offs, and accounting for real-world use. The distinct qualities of different materials (e.g., hydrophobic vs. hydrophilic fibers) should be recognized, with optimization for the highest quality of each. The weight of fabrics significantly influences the achievable thresholds. Therefore, the absence of weight classes is a notable concern, affecting both woven and knitted fabrics. Additionally, the lack of differentiation by knitting technology—such as jersey knitting, flat knitting, and seamless—will also impact the final outcome. Furthermore, the absence of information on fabric construction is concerning. Open and fancy knitted fabrics are expected to perform notably worse than tight/simple constructions. The same principle applies to woven fabrics as well. A balance between various durability aspects and trade-offs should be carefully managed (e.g., optimizing cellulose-based fabrics for high abrasion resistance may reduce dimensional stability and impact optical appearance). Additionally, selected methods should accurately reflect real-world use conditions. 5. It is advisable to evaluate whether the durability methods and their respective thresholds genuinely align with the vision of phasing out (ultra) fast fashion and fossil-based materials or whether they inadvertently promote their continued use—potentially at the expense of more sustainable, renewable, and biodegradable alternatives. 6. It is essential that durability thresholds do not unfairly penalize materials that are not responsible for the textile waste problem. 7. It is important that durability requirements support the potential for a second life of a garment. For example, if cotton textiles meet the thresholds and are then chemically recycled into viscose, but the resulting viscose textiles cannot meet these thresholds without being blended with polyester—potentially rendering them non-recyclable—what have we truly gained? 8. It is also advisable to assess the impact of these recommended thresholds—particularly when adjusted to accommodate commodity products—on the

ID	Section & line	Comment
		highly specialized European fiber and textile industry. Will they enhance or diminish the competitiveness of the European textile and fiber industry? The proposal outlined in Table 44 would have adverse effects on the European fiber and textile industry.
915	9.2.1.3 How to assess physical durability; Table 44 - 2939	- underwear DURHABI experiment feedback (follow up of the precedent DURHABI file) The ISO 13938-1 burst is weighted because holes are one of the main causes of end-of-life. for bras, this test should be carried out on the side of the under-breast. Highly elastic fabrics may not burst; in which case a non-result will not be considered in the final score. This test must be carried out on the entire complex of materials making up the article, if possible. On this subject, the technical committee has identified a need for a standardised test dedicated to the occurrence of a hole caused by perforation by fingernails (in general) on bra straps and which would cumulate both extension and usury over maintenance cycles. It would be interesting to identify a measurement method to mimic use. To go further, a specific framework could be also given for woven underwear, using the DURHABI recommendations for swimwear (except colour tests). This complement could be proposed via BNITH for publication in 2025. - Results analyse scores for the tested underwear range from 5.45/15 to 15/15. Many of the products almost reached the maximum mark, while only three references had a mark below the average of 7.5/15, which is in line with the observations made on the products. It should be noted that the DURHABI sample is robust and does not necessarily include the most problematic products on the market. It should be noted that the proposed scoring method does not group products by type (top/bottom), majority composition, colour or even average weight of finished products. the scoring method appears to be well discriminative and reveals defaults considered as important for users.
916	9.2.1.3 How to assess physical durability; Table 44 - 2939	DURHABI's results and recommendations for swimwear category - Category definition clothing worn in layer 1 in contact with skin for the lower & upper body. Bikinis, 1- or 2-pieces swimsuits, swim briefs, neoprene excluded - brands results 38 swimwear were returned, from 5 brands for damaged seams (29%) pulled yarn (11%), & tears (9%). - Consumer results For knitted products: loose elastics 71%. then, deformation (68% coef 3),disgorgement (26%) and holes (18%): coef 2. For woven products: holes: 52%, loose elastics 48% and deformation 42% (coef 3). Then, disgorgement (28%) and seams problems (22%): coef 2.

ID	Section & line	Comment
		- Test list and thresholds For woven products ISO 6330/ISO 5077: dimensional change (%) tops: distance of neckline & semi-under-bust. Bottom: width in height & opening leg. 1 piece: study of heights & widths. absolute values. Highest value after 5 care cycles. Coef 3 max.: x ≤ 3% med: 3 < x ≤ 5% critical: x > 5% ISO 20932-3 method A: elasticity_ Part 3: Narrow fabrics (%), straps / half waist for bottoms, 5 fatigue cycles & 1 min recovery. As received - Coef 3 max.: x ≤ 7% med: 7 < x ≤ 15% basic: 15 < x ≤ 25% critical: x > 25% ISO 20932-3 method A: elasticity_ Part 3: Narrow fabrics (%): half side between brackets & breast: 5 fatigue cycles & 1 min recovery. As received - Coef 3 max.: x ≤ 7% med: 7 < x ≤ 15% basic: 15 < x ≤ 25% critical: x > 25% EN ISO 12947-2 : abrasion _Part 2. 9kPa. Number of cycles before 2 broken yarns. As received - Coeff 3 max. x > 20000 medium 10000 < x ≤ 20000 basic 8000 < x ≤ 10000 critical x ≤ 8000

ID	Section & line	Comment
		"ISO 13937-1: Tear properties of fabrics_ Part 1(N) Lowest value among directions' average after 5 care cycles - Coeff 9 max.: x >10 med 8 < x ≤10 basic 6,5 < x ≤8 critical x ≤ 6,5 ISO 13934-2: Tensile — Part 2: Determination of maximum force using the grab method (N) Lowest value among directions' average after 5 care cycles - Coef 9 max: x > 200 med 150 < x ≤ 200 basic 100 < x ≤150 critical x ≤ 100 ISO 13936-2: seam slippage— Part 2: (mm) 5 side measurements on the weakest seam or, on inside seam, after 5 care cycles - coef 2 max.: x ≤ 2 med 2 < x ≤ 4 basic: 4 < x ≤ 6 fail x > 6 for sport / coef 2 max.: x ≤ 1,5 med: 1,5 < x ≤ 3,5 basic: 3,5 < x ≤ 5,5 fail: x > 5,5 ISO 15487: aspect assessment. Product aspect: holes/broken yarn on finished product, according to scale: 1 presence of hole/ 5 absence of hole, after 15

ID	Section & line	Comment
		care cycles - Coeff 3 max. x = 5 critical x = 1 ISO 15487: aspect assessment. Underwire: piercing, according to scale: 1 presence / 5 absence, after 15 care cycles - Coef 3 max.: x = 5 critical x = 1 ISO 15487: aspect assessment. Product: broken elastane , scale: 1 presence, 5 absence after 15 care cycles - Coef 3 max. x = 5 fail x = 1 ISO 15487: aspect assessment: Fabric. Delamination, scale: 1 presence / 5 absence after 15 care cycles - Coef 6 max.: x = 5 critical x = 1 ISO 15487: aspect assessment: bra cup. Curled, 5 points scale, after 15 care cycles - Coef 1 max.: x ≥ 4.5 med: x = 4 basic: 3 ≤ x ≤ 3,5 fail: x < 3 ISO 15487: aspect assessment: pilling on finished product, lowest value among the different criteria after 15 care cycles - Coef 1 max.: x ≥ 4,5 Med x = 4 basic: 2,5 < x ≤ 3,5 fail: x ≤ 2,5

ID	Section & line	Comment
		ISO 15487: aspect assessment: Seam appearance: lowest value after 15 care cycles - Coef 1 max.: x ≥ 4 med: x = 3,5 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: aspect assessment: Handling of functional accessories, lowest value, 5 points scale (1: unusable to 5: functional). after 15 care cycles - Coef 3 max.: x = 5 med: x = 4 basic: x = 3 fail: x ≤ 2 ISO 15487: aspect assessment: accessories appearance , lowest value after 15 care cycles - Coeff 1 max: x ≥ 4,5 med 3,5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 15487: aspect assessment: Prints & embroideries after 15 care cycles - Coeff 1 max.: x ≥ 4,5 med: 3.5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 15487: aspect assessment: Colour change after 15 care cycles - Coef 4

ID	Section & line	Comment
		max.: x ≥ 4,5 med: 3,5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 105-E02: Tests for colour fastness — Part E02: Sea water. lowest value among 7 staining + colour change results. Not required on white colour as received - Coef 2 Max x ≥ 4,5 Med 3,5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 105-E03: colour fastness — Part E03: chlorinated water, lowest value. Not required to white: 50 mg/ L of chlorine. As received - Coef 2 Max x ≥ 4,5 Med 3,5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 105-B02: colour fastness — Part B02: Colour fastness to artificial light, European A1 conditions. Method 3 - Blue wool 4 graded at 3 on the grey scale. Blue scale rating, not required on white. as received - Coef 2 max x ≥ 4 med x = 3.5 fail x ≤3 Allegation review according to standards: see framework - Coef 1
917	9.2.1.3 How to assess physical durability; Table 44 - 2939	DURHABI's results and recommendations for swimwear category - Tested products

ID	Section & line	Comment
		30 references were selected on 39. Most of products are for women 70%; and ready-to-wear (80%). However, 20% of the products are dedicated to sport. swimwear sample includes 50% one-piece costumes (permitting the samples cut), 20% woven shorts and a few two-piece knitted products and boxer shorts (10%). - Test list and thresholds For knitted products ISO 6330 / ISO 5077: dimensional change (%) tops: distance of neckline & semi-side area. Bottom: waist and opening leg. 1 piece: study of heights and widths. absolute values. highest value after 5 care cycles - Coef 3 max.: x ≤ 3% med: 3% < x ≤ 5% basic: 5% < x ≤ 7% critical: x >7% ISO 20932-3 method A: elasticity— Part 3: Narrow fabrics (%) shoulder straps / or half waist for bottoms, 5 fatigue cycles and 1 min recovery. As received - Coeff 3 max.: x ≤ 7% med: 7% < x ≤ 15% basic: 15% < x ≤ 25% critical: x > 25% ISO 20932-3 method A: elasticity— Part 3: Narrow fabrics (%) measurement of half side between brackets and breast. 5 fatigue cycles and 1 minute recovery" As received - Coeff 3 max.: x ≤ 7% med: 7% < x ≤ 15% basic: 15% < x ≤ 25%

ID	Section & line	Comment
		critical: x > 25% BS 8479 modified: snagging. lowest value of each direction. As received - Coef 3 max.: x ≥ 4.5 med: x = 4 basic: 3 ≤ x ≤ 3,5 fail: x ≤ 2,5 for sport: coef 3 max.: x ≥ 4.5 medium: x = 4 basic: x = 3,5 fail: x ≤ 3 ISO 15487: aspect assessment. on finished product, according to scale: 1 presence / 5 absence of hole, after 15 care cycles - Coef 2 max.: x = 5 fail: x = 1 ISO 15487: aspect assessment. Underwire: piercing finished product, according to scale: 1 presence / 5 absence of piercing after 15 care cycles - Coef 2 max.: x = 5 fail: x = 1 ISO 15487: aspect assessment. Product: broken elastane on finished product, according to scale: 1 presence 5 absence after 15 care cycles - Coef 3 max: x = 5 fail: x = 1 ISO 15487: aspect assessment: cup appearance. Curled aspect on finished product, according to a 5 points scale after 15 care cycles - Coef 1

ID	Section & line	Comment
		max.: x ≥ 4.5 medium: x = 4 basic: 3 ≤ x ≤ 3,5 fail: x < 3 ISO 15487: aspect assessment. Fabric. Delamination on finished product, according to scale: 1 presence/ 5 absence, after 15 care cycles - Coef 3 max.: x = 5 fail: x = 1 ISO 15487: aspect assessment. pilling, on finished product, lowest value among the different criteria after 15 care cycles - Coef 1 max.: x ≥ 4.5 medium: x = 4 basic: 2,5 < x ≤ 3,5 fail x ≤ 2,5 ISO 15487: aspect assessment. Seam appearance: Smooth, delamination, pucker on finished product, lowest value among the different criteria after 15 care cycles - Coef 1 max. grade: x ≥ 4 medium grade: x = 3,5 basic grade: 2,5 ≤ x ≤ 3 fail grade: x ≤ 2 ISO 15487: aspect assessment. Handling of functional accessories on finished product, lowest value according to a 5 points scale (from 1: unusable to 5: functional). No half grades after 15 care cycles - Coef 3 max.: x = 5 medium: x = 4 basic: x = 3

ID	Section & line	Comment
		fail: x ≤ 2 ISO 15487: aspect assessment. Trims and accessories appearance on finished product, lowest value among the different criteria after 15 care cycles - Coef 1 max.: x ≥ 4.5 medium: 3.5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 15487: aspect assessment. Colour change: Prints & embroideries finished product after 15 care cycles - Coef 1 max: x ≥ 4.5 medium: 3.5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 15487: aspect assessment: Colour change on finished product after 15 care cycles - Coef 4 max: x ≥ 4.5 medium: 3.5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 105-E02: Part E02: Colour fastness to Sea water, lowest value among the 7 staining + colour change results. Not required on white colour. As received - Coef 2 max: x ≥ 4.5 medium: 3.5 ≤ x ≤ 4 basic: x = 3

ID	Section & line	Comment
		fail: x ≤ 2,5 ISO 105-E03: Part E03: Colour fastness to chlorinated water. Not required to white 50 mg/ L of chlorine as received – Coef 2 max.: x ≥ 4.5 medium: 3.5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 105-B02: Part B02: Colour fastness to artificial light. European A1 conditions. Method 3 - Blue wool 4 graded at 3 on the grey scale. Blue scale rating, not required on white colour, as received - Coef 2 max: x ≥ 4 medium: x = 3,5 fail: x ≤ 3 Allegation review. According to identified standards: see dedicated reference frame - Coef 1 - Results analyse The scores range from 10.63/15 to 15/15. Similar compositions (100% polyester or polyamide/elastane) are found at the top of the scoring table: products with the best physical durability scores according to the proposed method, and at the bottom of the scoring table towards those with the lowest score. None of the products tested scored below the theoretical average of 7.5/15.
918	9.2.1.3 How to assess physical durability; Table 44 - 2939	DURHABI's results and recommendations for stocking (tights and socks) category - Category definition all tights (pieces with or without gusset) thin or thick, opaque or not, with or without feet, ankle socks, low socks, non-slip socks, gaiters... Socks with soles are excluded. A distinction is made between products of more than 110 Dtex, i.e. classic thick products, and products less than 110 Dtex, i.e. veil or foam products for women. This limit was set collectively - brands results

ID	Section & line	Comment
		covers 50 references of socks & tights for 8 distinct brands. 52% are socks/ knee-highs/low-cut socks, 46% are thin or thick tights/opaque or not and 2% are running tights (no post hoc distinction possible between thin or thick products). The main reasons for the return of ready-to-wear tights & socks are holes (26%), pulled yarn (15%), pilling (13%), & product's deformation (10%). Slight differences exist for sportswear, where pilling is the main cause of end-of-life, accounting for 6% of returns. Then holes (5%) & size change (4%). - Consumer results Holes and elasticity loss are the main causes of end-of-life reported by consumers for socks and tights >110 Dtex(coef 3). Then, deformation and pilling: 15.24% (coef 2). For stockings & tights <110 Dtex : the graph below shows that holes and pulled yarns are the main cited causes (coef 3). Then pilling (18.51%) and elastics loss: 17.62% (coef 2). - Products tested 28 products, including 16 pairs of socks, 5 pairs of ankle socks, 6 tights and 1 pair of stockings, were selected on 40. 83% of the DURHABI sample tested was made up of ready-to-wear products, with five sports products (17%). The majority were for adults, to be large enough for sampling. - Test list & thresholds For aspect assessment: 15 care cycle for >100d and only 1 for <100d NF G30-101: fitting. not applicable on all tights & products without materialized heel (tube products). In this case is not worth results. After 1 care cycle - Coeff 2 / sport coef 4 / <100 d coef 1 max.: x = 5 fail: x = 1 NF EN 13770-2: abrasion for footwear (nab of cycles) - method 2: on support. lowest of the 3 averages: heel, toe & sole area. Stop criterion: hole. not applicable on <110Dtex articles. As received - Coeff 9. Not relevant for <110 Dtex max.: x > 800 med: 600 < x ≤ 800 basic 400 < x ≤ 600 critical: x ≤ 400 sport – coef 6 max.: x > 1500

ID	Section & line	Comment
		med: 1200 < x ≤ 1500 basic: 1000 < x ≤ 1200 critical: x ≤ 1000 BS 8479 : method to determine a fabric's propensity to snagging. Lowest value of the results of each direction. Relevant only for <100d - coef 9 max.: x ≥ 4.5 med: 3.5 ≤ x ≤ 4 basic: x = 3 critical: x ≤ 2.5 ISO 12945-1: pilling, _Part 1: 180 min as received - Coeff 6 / sport coef 4, not relevant for <100d max.: x ≥ 4.5 med: 3.5 ≤ x ≤ 4 basic: 2 ≤ x ≤ 3 critical: x < 2 ISO 15487: aspect assessment: holes on finished product, according to a scale: 1 presence / 5 absence of hole after 15 care cycles / 1 for <100d- Coef 9 / sport coef 6 / <100d coef 9 max.: x = 5 critical: x = 1 ISO 15487: aspect assessment: pilling on finished product, lowest value among the different criteria, after 15 care cycles - Coeff 6 / sport coef 4 max.: x ≥ 4 med: 3 ≤ x ≤ 3.5 basic: x = 2.5 critical: x ≤ 2

ID	Section & line	Comment
		for <110 Dtex coef 6 max. grade: x ≥ 4.5 medium grade: 3.5 ≤ x ≤ 4 basic grade: x = 3 critical grade: x ≤ 2.5 ISO 15487: aspect assessment. Trims on finished product, lowest value among the different criteria after 15 care cycles - Coef 1 max.: x ≥ 4,5 med: 3 ≤ x ≤ 4 basic: x = 2,5 critical: x ≤ 2 ISO 15487: aspect assessment. Colour change: Prints & embroideries on finished product. Non relevant for >110 Dtex and sport. Relevant only for <100d - coef 1 max.: x ≥ 4.5 med: x = 4 basic: x = 3,5 fail: x < 3,5 ISO 15487: aspect assessment. Colour change on finished product After 15 care cycles – Coef 1 max.: x ≥ 4.5 med: 3.5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 Allegation review according to identified standards: see dedicated reference frame - coef 1

ID	Section & line	Comment
		- feedback The fit test is suited to products such as socks >110 Dtex). The fit is checked on standardised preforms (validation of the heel-to-toe distance). As the conclusion is verbal, a binary scale has been proposed to be used in physical durability calculations. Thus, grade 1 corresponds to: 'not suitable for at least one size indicated by the manufacturer or marketer' and grade 5 corresponds to the conclusion 'good in size'. For products < 110 Dtex, the appearance test must be lead after a single maintenance cycle, the products should be net-washed to preserve their integrity. - Results analyse for socks >110 Dtex shows that 3 products have a score below the 7.5/15. For tights < 110 Dtex: their composition is very similar, based on polyamide & elastane in different ratios, and their scores range demonstrating that the composition is not enough to ensure durability
919	9.2.1.3 How to assess physical durability; Table 44 - 2939	DURHABI's results and recommendations for accessories (scarves and soft hats, excluding rigid hats, gloves, belt and shoes) category - Category definition all warp & weft fabrics (cheches, pashminas, stoles, scarves, pareos, ponchos) and soft hats (caps, berets, bonnets, other headwear), excluding gloves, belts & bags. - brands results The survey covers 38 accessory references of 5 brands. The main reasons why accessories are returned to stores are broken seams (28%). For hats, 9% of accessories were also damaged. - Consumer results For scarves: Pilling (over 50% of cases), followed by holes or tears (48%) are the main causes of end-of-life reported by consumers (coef 3). Then, deformation (32%) and pulled yarn (17%): coef 2. For accessories such as hats and berets: deformation or loss of elasticity (45%), pilling (42%), holes or tears (42%: coef 3). Next come elasticity loss (20%) and seams problems (18% coef 2). - Tested products Durhabi's sampling: 22 products were selected: a majority for women (50%): acrylic 27%, polyester 23% and wool 18%. Also included 1 item in linen, 1 in modal, 1 in cotton and 1 in silk. The proportion of acrylic is over-represented in the DURHABI accessories campaign, while polyester and wool are under-represented (by around 9%). Linen, viscose and silk were also slightly over-represented, although only one item was present. - test list and thresholds

ID	Section & line	Comment
		For woven products ASTM D3939: Snagging. lowest value of the results of each direction as received - Coef 2 max.: x ≥ 4.5 med: 3,5 ≤ x ≤ 4 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 12945-2: pilling, Part 2: fabric against fabric at 5000 cycles, after 5 care cycles - Coeff 6 max.: x ≥ 4.5 med: 3 < x ≤ 4 basic: 2 ≤ x ≤ 3 critical: x < 2 ISO 13936-2: seam slippage— Part 2 (mm) Average force 5 Side measures on the weakest seam or, inside seam after 5 care cycles - Coef 2 max.: x ≤ 2 med: 2 < x ≤ 4 basic: 4 < x ≤ 6 fail: x > 6 ISO 15487: aspect assessment. Product: holes on finished product, according to proposed scale: 1 presence / 5 absence after 15 care cycles - Coef 3 max.: x = 5 critical: x = 1 ISO 15487: aspect assessment: Fabric appearance. Pulled yarn on finished product, according to scale: 1 presence / 5 absence of pulled yarn after 15 care

ID	Section & line	Comment
		cycles - Coef 2 max.: x = 5 fail: x = 1 ISO 15487: aspect assessment: pilling, finished product, lowest value among the different criteria after 15 care cycles - Coeff 6 max.: x ≥ 4.5 med: 3 < x ≤ 4 basic: 2 ≤ x ≤ 3 critical: x < 2 ISO 15487: aspect assessment. Seam: Smooth & pucker finished product, lowest value among the different criteria after 15 care cycles - Coeff 2 max.: x ≥ 4 med: x = 3.5 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: aspect assessment. Handling of functional accessories on finished product, lowest value according to 5 points scale (from 1: unusable to 5: functional). No half grades after 15 care cycles - Coeff 3 max.: x = 5 med: x = 4 basic: x = 3 fail: x ≤ 2 ISO 15487: aspect assessment. Trims & accessories appearance on finished product, lowest value among the different criteria after 15 care cycles - Coeff 1 max.: x ≥ 4.5 med: 3.5 ≤ x ≤ 4

ID	Section & line	Comment
		basic: x = 3 fail: x ≤ 2,5 ISO 15487: aspect assessment. Colour change: Prints & embroideries on finished product after 15 care cycles - Coef 1 max.: x ≥ 4.5 med: 3.5 ≤ x ≤ 4 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: aspect assessment. Colour change on finished product after 15 care cycles - Coef 2 max.: x ≥ 4.5 med: 3.5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 105-B02: colour fastness to artificial light: Method 3 - European A1 conditions. Blue wool 4 graded at 3 on the grey scale; Blue scale rating, not required on white colour". As received - Coef 1 max.: x ≥ 4 medium: x = 3.5 fail: x ≤ 3 ISO 105-E04: Colour fastness to perspiration . Lowest value among the 14 staining ad colour changes results. Not required on white colour as received - Coef 1 max.: x ≥ 4.5 med: 3.5 ≤ x ≤ 4 basic: x = 3

ID	Section & line	Comment
		fail: x ≤ 2,5 Allegation review according to identified standards: see dedicated reference frame - Coef 1
920	9.2.1.3 How to assess physical durability; Table 44 - 2939	DURHABI's results and recommendations for accessories (scarves and soft hats, excluding rigid hats, gloves, belt and shoes) category - Test list and thresholds For knitted products ISO 13938-1 (or 2): Bursting— Part 1: kPa. 7,3cm^2. As received - Coeff 3 max: x > 600 med: 400 < x ≤ 600 basic: 200 < x ≤ 400 critical: x ≤ 200 ASTM D3939: Snagging (Mace) lowest value of each direction. As received - Coef 2 max: x ≥ 4,5 med: 3,5 ≤ x ≤ 4 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 12945-1: pilling, fuzzing or matting — Part 1. 180 min, as received - Coeff 6 max: x ≥ 4.5 med: 3 < x ≤ 4 basic: 2 ≤ x ≤ 3 critical: x < 2 ISO 15487: aspect assessment. holes/broken yarn on finished product, scale: 1 presence /5 absence of hole, after 15 care cycles - Coef 3

ID	Section & line	Comment
		max.: x = 5 critical: x = 1 ISO 15487: aspect assessment: Pulled yarn on finished product, 1 presence / 5 absence of pulled yarn after 15 care cycles - Coef 2 max.: x = 5 fail: x = 1 ISO 15487: aspect assessment: pilling, on finished product, lowest value among the different criteria after 15 care cycles - Coef 6 max.: x ≥ 4.5 med: 3 < x ≤ 4 basic: 2 ≤ x ≤ 3 critical: x < 2 ISO 15487: aspect assessment. Seam appearance: Smooth & pucker Finished product after 15 care cycles - Coeff 2 max.: x ≥ 4 med: x = 3.5 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: aspect assessment. Handling of functional accessories on finished product, lowest value among the different criteria: 5 points scale (from 1: unusable to 5: functional). No half grades after 15 care cycles - Coef 3 max.: x = 5 med: x = 4 basic: x = 3 fail: x ≤ 2 ISO 15487: aspect assessment. Trims & accessories appearance on finished product, lowest value among the different criteria after 15 care cycles - Coef

ID	Section & line	Comment
		1 max: x ≥ 4.5 med: 3.5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 15487: aspect assessment. Prints & embroideries Finished product after 15 care cycles - Coeff 1 max.: x ≥ 4.5 med: 3.5 ≤ x ≤ 4 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: aspect assessment: Colour change finished product after 15 care cycles - Coef 2 max.: x ≥ 4.5 med: 3.5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 105-B02: Tests for colour fastness to artificial light: Method 3 - European A1 conditions. Blue wool 4 graded at 3 on the grey scale, blue scale rating, not required on white colour. As received - Coeff 1 max.: x ≥ 4 med: x = 3.5 fail: x ≤ 3 ISO 105-E04: Tests for colour fastness to perspiration: lowest value among the 14 staining + colour change results. Not required on white colour. As received - coef 1 max.: x ≥ 4.5

ID	Section & line	Comment
		med: 3.5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 Allegation review according to identified standards: see dedicated reference frame - Coeff 1 - Results analyse several products' score according to DURHABI scoring method is below the theoretical average of 7.5/15: 7 products out of 22. Their main defaults were pilling, snagging and damaged trims. Pilling test is critical, which led to a drop in the global score for these references. The majority composition does not determine the physical durability rating, but rather the overall structure and construction of the product
921	9.2.1.3 How to assess physical durability; Table 44 - 2939	DURHABI's results and recommendations for bedding category - Category definition all fabrics in warp and weft to cover the bed and mattress (flat sheets, fitted sheets, duvet covers and cushions, pillowcases) excluding furniture, plaids, bedding protections, and with filling: duvets and pillows. - brands results 128 items were returned in stores in our enquiry, from 3 different brands. The main reasons for returning bed linen to stores were holes, colour change due to care, tears and pilling. - Consumer results Holes and tears account for over 72% of the end-of-life causes bedding for consumers responding to our third & final survey (coef 3). Then there are problems linked to colour fastness to wash (27%), deformation of products (24%) and seams problems (22%): coef 2. it is important to consider that bedding articles have only hems and not really seams (or decorative seams). - Tested products 20 references were selected, out of a total of 30. The references not selected were left out, for reasons of material/colour duplication or brands were already represented. Cotton (65%) and linen (25%). Most products tested in DURHABI were pillowcases (40%) and duvet covers (25%). All the products received are warp and weft. The technical committee couldn't thus, propose a technical framework for knitted products. This could be cover by French normalization this year. - Test list and thresholds For woven products

ID	Section & line	Comment
		ISO 3759 / ISO 5077: dimensional change (%): 3 height and width measurements, In absolute values. Study of the highest value between the two averages after 5 care cycles - Coef 2 max.: x ≤ 3% med: 3% < x ≤ 5% basic: 5% < x ≤ 8% fail: x > 8% ISO 13934-2: Tensile— Part 2: (N) Lowest value among vertical + horizontal direction average. as received - coef 9 max.: x > 150 medium: 130 < x ≤ 150 basic: 100 < x ≤ 130 critical: x ≤ 100 ISO 12945-2: pilling, fuzzing or matting - Part 2: Modified Martindale method fabric against fabric at 2000 cycles as received - Coef 3 max.: x ≥ 4,5 med x = 4 basic: 3 ≤ x ≤ 3,5 fail: x ≤ 2,5 ISO 12947-2: abrasion_ Part 2 Determination of specimen breakdown. 12kPa Number of cycles before 2 broken yarns. As received - Coeff 9 max.: x > 18000 med: 12000 < x ≤ 18000 basic: 6000 < x ≤ 12000 critical: x ≤ 6000 ISO 15487: Aspect assessment. Product aspect: holes on finished product, scale: 1 presence / 5 absence after 15 care cycles - Coef 9

ID	Section & line	Comment
		max.: x = 5 critical: x = 1 ISO 15487: Aspect assessment: Fabric appearance. Pulled yarn on finished product, according to scale: 1 presence / 5 absence, after 15 care cycles - Coef 2 max.: x = 5 fail: x = 1 ISO 15487: Aspect assessment: pilling, fuzzing and matting on finished product, lowest value among the different criteria after 15 care cycles - Coef 3 max.: x ≥ 4,5 medium: x = 4 basic: 3 ≤ x ≤ 3,5 fail: x ≤ 2,5 ISO 15487: Aspect assessment: washing marks on finished product after 15 care cycles – Coef 2 max.: x ≥ 4 med: x = 3,5 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: Aspect assessment. Seam appearance: Smooth & pucker finished product, lowest value among the different criteria, after 15 care cycles - Coef 2 med: x = 3,5 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: Aspect assessment. Handling of functional accessories on finished product, lowest value among the different criteria: 5 points scale (from 1: unusable to 5: functional). No half grades. After 15 care cycles - Coef 1

ID	Section & line	Comment
		max.: x = 5 med: x = 4 basic: x = 3 fail: x ≤ 2 ISO 15487: Aspect assessment. Trims & accessories appearance finished product, lowest value among the different criteria after 15 care cycles - Coef 1 max.: x ≥ 4,5 med: 3,5 ≤ x ≤ 4 basic: x = 3 fail x ≤ 2,5 ISO 15487: Aspect assessment: Colour change: Prints & embroideries on finished product after 15 care cycles – Coef 2 max.: x ≥ 4,5 med: 3,5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 15487: Aspect assessment: Colour change on finished product after 15 care cycles - Coef 2 max.: x ≥ 4,5 med: 3,5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 Allegation review, according to identified standards. See dedicated reference frame - Coef 1 - feedback

ID	Section & line	Comment
		The technical committee agreed to carry out dimensional change on standard squares, which is more practical than working on products that may be very large. Tests on seams have not been retained because these articles have few assembly or transverse seams: they are often bias/hems which do not allow physical tests to be carried out (not enough space on a test piece which would be taken from the edge of the article). For the aspect, the criteria “washing marks” has been added to be inspected, with an appropriate 5-point scale. - results analyse There were 100% linen or 100 % cotton items at both to the higher and lower scores. Products had close scores and similar ranges for cotton (12 items) & linen (5 items): between 6.
922	9.2.1.3 How to assess physical durability; Table 44 - 2939	DURHABI’s results & recommendations for Household linen category - Category definition All fabrics for home use: table linen (tablecloths, napkins and table runner), office linen (tea towels, aprons), bath linen (washcloth and towels, bathrobe), beach linen (beach linen, foutas) excluding wiping cloths (mops, mops), furnishing articles (carpets, curtains, plaids, cushion covers) and PPE - Brands results For flat household linen (tea towels, tablecloths and napkins, etc.): the causes of returns to stores are pilling (75%) and colour change due to light (25%) as discussed in working group, whose conclusions are detailed in ‘feedback’. Very little data was available for this sub-category, which needs to be consolidated to be more representative. for terrycloth items: 46 items were reported, from 3 different partner brands. Reasons for returns to stores were pulled yarn (65%), hair loss (17%) & tears (9%), all sub-categories combined. - Consumer results The end-of-life causes for flat household linen are holes (79% coef 3) discolouration (19% coef 2), stains (not verifiable on a test bench) and product deformation (16% coef 2). For terrycloth items: holes (63%): coef 3. Other causes are not measurable in lab and sometimes not the manufacturers’ responsibility (stiffness, comfort or stains). then, disgorgement (20%: coef 2). - Tested products 23 references: most tea towels (18%) and bath/shower towels (18%). Main composition is cotton (77%), and linen (14%). All woven: no framework could be proposed for knitted products. - Test list & thresholds

ID	Section & line	Comment
		For woven products ISO 3759 / ISO 5077: dimensional change (%) 3 height & width measures. In absolute values. Highest value between averages after 5 care cycles - Coef 1 max: x ≤ 3% med: 3% < x ≤ 5% basic: 5% < x ≤ 8% fail: x > 8% ISO 13934-2: Tensile— Part 2: grab method (N) Lowest value among 2 directions. As received - Coef 3 flat / coef 9 with loops max.: x > 400 med: 250 < x ≤ 400 basic: 130 < x ≤ 250 critical: x ≤ 130 ISO 12947-2: abrasion by the Martindale method __ Part2. 12kPa. Number of cycles before 2 broken yarns, after 1 care cycle - Coef 3 max.: x > 30000 med: 15000 < x ≤ 30000 basic: 6000 < x ≤ 15000 critical: x ≤ 6000 not relevant for products with loops. ISO 15487: aspect assessment. Product: holes on finished product, scale: 1 presence/ 5 absence, after 15 care cycles - Coef 3 max.: x = 5 critical: x = 1 ISO 15487: aspect assessment. Fabric. Pulled yarn on finished product, scale: 1 presence / 5 absence, after 15 care cycles – Coef 1 / coef 3 with loops max.: x = 5

ID	Section & line	Comment
		fail: x = 1 ISO 15487: aspect assessment. pilling, fuzzing & matting on finished product, lowest value after 15 care cycles - Coef 1 max.: x ≥ 4,5 med: x = 4 basic: 3 ≤ x ≤ 3,5 fail: x ≤ 2,5 ISO 15487: aspect assessment: Fabric appearance, smoothness on finished product after 15 care cycles – Coef 1 max.: x ≥ 4 med: x = 3,5 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: aspect assessment. Seam appearance: Smooth & pucker, on finished product, lowest value after 15 care cycles - Coef 1 max.: x ≥ 4 med: x = 3,5 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: aspect assessment. Handling of functional accessories, lowest value, 5 points scale (from 1: unusable to 5: functional). No half grades, after 15 care cycles - Coef 1 max.: x = 5 med: x = 4 basic: x = 3 fail: x ≤ 2

ID	Section & line	Comment
		ISO 15487: aspect assessment. Trims & accessories appearance on finished product, lowest value among the different criteria after 15 care cycles – Coef 1 max.: x ≥ 4,5 med: 3,5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 15487: aspect assessment. Colour change: Prints & embroideries on finished product after 15 care cycles - Coef 1 max.: x ≥ 4,5 med: 3,5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 15487: aspect assessment: Colour change on finished product after 15 care cycles - Coef 2 max.: x ≥ 4,5 med: 3,5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 105-E02: Tests for colour fastness to Sea water. ONLY FOR BEACH PRODUCTS. Lowest value among the 7 staining + colour change results. Not required on white colour. As received: Coef 2 max.: x ≥ 4,5 med: 3,5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5

ID	Section & line	Comment
		ISO 105-E03: Tests for colour fastness to chlorinated water: ONLY FOR BEACH PRODUCTS. colour change value. Not required to white 20 mg/ L of chlorine. as received - Coef 2 max.: x ≥ 4,5 med: 3,5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 105-B02: Tests for colour fastness to artificial light: ONLY FOR BEACH PRODUCTS. Method 3 - European A1 conditions. Blue wool 4 graded at 3 on the grey scale. Blue scale rating, no test on white colour. As received - Coef 2 flat / loop coef 6 critical max: x ≥ 4 med: x = 3,5 fail: x ≤ 3 Allegation review: According to identified standards > see dedicated reference frame – Coef 1 See conclusions on the following comment
923	9.2.1.3 How to assess physical durability; Table 44 - 2939	DURHABI's results and recommendations for Household linen category - Feedback - absorbency of sponge products. EN 14697-B and NFG 07-166 were led on terry products. This characteristic permit to differentiate the range of these articles and to position them, sought this performance is not lost during use. It remains stable and is not an end-of-life cause (not included). - loops resistance: EN 15598 was led by dynamometer and showed that this performance is not sensitive to care cycles. It could not be identified as an objective and measurable end-of-life cause (not included). - snagging tests were led (ASTM D3939, BS 8479). these tests were too drastic with sponge products: this defect is certainly disappointing when buying a new product, but it does not constitute an end-of-life cause as such: consumer just have to cut a yarn that may have been pulled. - Results analyse Only one product was tested for polyester and polyamide compositions or polyester alone, which explains the low range of scores. Conversely, 17 cotton

ID	Section & line	Comment
		products were tested, with ratings ranging from 8.8 to 11.05. The linen products tested in the project had a wider range: from 8.4 to 11.5 / 15, with an average of 9 / 15 above the theoretical average of 7.5 /15. Recording of the DURHABI general care instructions: Follow the care instructions on the labels. Care according to standard ISO 6330/ISO 3758 with regular drying (for up to 12 hours if open air) every 1, 2, 3, 4, 5, 10 and 15 with detergent 3 and 1, 2, 3, 4, 5, 7, 10, 12, 15 for items made from animal fibres (>80%) with detergent 7. If allowed: iron the product only once before sampling for testing. Use dry cleaning if exclusively allowed (EN ISO 3175-2) General conclusion of DURHABI project: The DURHABI framework (test lists, caring stages and recommendations) were fair and adapted to test and compare the 350 tested products of the 12 identified categories, permitting to sort every type of garment and textile article. + the DURHABI scoring method with coefficients, grades and thresholds was also very efficient and sufficient to score all the tested products and obtain an interesting score showing the apparition of important defaults on products. Results show that the products' principal composition is not directly correlated to its physical durability score, but all the manufacturing steps and decisions are. These data, results and methodology already improved or influenced - Refashion French framework for eco-modulations, - French brand's internal organization (80 partners), - French standardization (BNITH) with 2 standards just published in March and available on afnor website (NF G30 113-1 and -2) - French government for ecological labelling (CGDD and MTE: ministère de la transition écologique), - European standardization (CEN),

ID	Section & line	Comment
		- and PEF-CR project and frameworks for physical durability assessment. an english short and accessible report is on publication and will be transfered by [...].
924	9.2.1.3 How to assess physical durability; Table 44 - 2939	DURHABI's results and recommendations for Tee-shirts category - Category definition includes all tops in direct contact with the skin (layer 1) with or without sleeves (long or short), tank tops, t-shirts, polo shirts, bodysuits, baby and women's bodysuits (excluding lingerie). - brands results This survey covers 208 references of the French market (casual or sport) from 11 different brands. The main reason for the return of T-shirts to stores was holes for ready-to-wear items and a change in the aspect of the material for sports products (more than 8%). - Consumer results The product deformation (60%) and holes (55%) are the main causes of end-of-life reported by consumers in the T-shirt category (coef 3). Thus, abrasion is needed - Tested products The samples tested in this category were all knitwear. 37 references: 35 T-shirts and 2 baby bodysuits were selected from products supplied by partner brands, on a total of 44 received references. The not selected products were duplicates in terms of material/colour or the brands were already represented in the category. The tested products were mainly for adults (84%) because they permit a greater sampling. Few sports products 3.8%. Cotton (76%), followed by linen & PET (10% each). The proportions of composition are close to the distributions from the market reported by the PEF-CR (version 1.2). - Test list and thresholds ISO 6330 / ISO 5077: dimensional change (%) 3 height & width measurements. Study of the highest value between the 2 averages in absolute values after 5 care cycles - Coef 9 max.: $x \leq 3\%$ (giving 15 pts) med: $3\% < x \leq 5\%$ (giving 10 pts) basic: $5\% < x \leq 7\%$ (giving 5 pts)

ID	Section & line	Comment
		critical: x > 7% (giving 0 pts and leading to the fall of other trials related to the same end-of life cause) ISO 16322-3: spirality— Part 3 (%). Method B in absolute values, after 5 care cycles - Coef 6 max.: x ≤ 5% med: 5% < x ≤ 7% basic: 7% < x ≤ 10% critical: x > 10% ISO 12947-2: abrasion by the Martindale method __ Part 2 9kPa, Number of cycles before 1 broken yarn. As received - Coef 9 max.: x > 20000 med: 10000 < x ≤ 20000 basic: 8000 < x ≤ 10000 critical: x ≤ 8000 ISO 13938-1 (or 2): Bursting— Part 1(Kpa) 7,3cm^2. As received - Coef 9 Max.: x > 400 med: 300 < x ≤ 400 basic: 200 < x ≤ 300 critical: x ≤ 200 ASTM D3939: Snagging (Mace). Study of the lowest value of the results of each direction. Only for sport products As received - Coef 2 max.: x ≥ 4.5 med: x = 4 basic: x = 3,5 fail: x ≤ 3

ID	Section & line	Comment
		ISO 12945-1: pilling, fuzzing or matting — Part 1: Pilling box method, 180 min. As received - Coef 2 / 4 for sport max.: x ≥ 4.5 med: 3.5 ≤ x ≤ 4 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: Aspect assessment. holes on finished product, according to proposed scale: 1 presence of hole / 5 absence of hole. After 15 care cycles - Coef 9 / 6 for sport max.: x = 5 critical: x = 1 ISO 15487: Aspect assessment: fabric damage pilling, fuzzing and matting finished product, considering the lowest value among the different criteria. After 15 care cycles - Coef 2 / 4 for sport max.: x ≥ 4.5 med: x = 4 basic: 2,5 < x ≤ 3,5 fail: x ≤ 2,5 ISO 15487: Aspect assessment: Fabric aspect, smoothness on finished product after 15 care cycles - Coef 1 max.: x ≥ 4 med: x = 3.5 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: Aspect assessment. Seam aspect: Smooth and pucker o finished product, considering the lowest value among the different criteria after 15 care cycles - Coef 2 max.: x ≥ 4

ID	Section & line	Comment
		med: x = 3.5 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: Aspect assessment. Handling of functional accessories on finished product, the lowest value among the different criteria according to a 5 points scale (1: unusable to 5: functional). No half s. After 15 care cycles - Coef 1 max.: x = 5 med: x = 4 basic: x = 3 fail: x ≤ 2 ISO 15487: Aspect assessment. Trims &accessories aspect on finished product, considering the lowest value among the different criteria after 15 care cycles - Coef 2 max.: x ≥ 4.5 med: 3.5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 15487: Aspect assessment. Colour change: Prints & embroideries on finished product after 15 care cycles - Coef 2 max.: x ≥ 4.5 med: 3.5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 15487: Aspect assessment: Colour change on finished product After 15 care cycles - Coef 4 max.: x ≥ 4.5

ID	Section & line	Comment
		med: 3.5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 Allegation review according to identified standards. See dedicated reference frame - Coef 1 - results analyse Studying the products' scores, DURHABI conclude that the majority compositions of the tested samples are not linearly correlated with the physical durability results. Which is true for their weight, colour or brand. score is a consequence of the different choices made by manufacturers at each stage of the value chain
925	9.2.1.3 How to assess physical durability; Table 44 - 2939	DURHABI's results and recommendations for shirts and blouses category - Category definition All woven tops on direct skin contact (layer 1) with or without sleeves (long or short), Long sleeved shirts, woven T-shirts and base layers, tunics, blouses, caraco/camisole - brands results The survey covers 41 shirt references from 9 different brands. The main reasons why shirts are returned to stores are size changes after care (15%), stains (13%) &damaged accessories (more than 11%). - Consumer results The occurrence of holes is the main cause of end-of-life of shirts according to consumer feedback (44.7%), which makes it a critical criterion that needs to be highlighted with appropriate standardised tests (abrasion and burst). The secondary causes of end-of-life (coef 2) are deformation/elasticity (36.18%), discolouration (29.76%), seam problems (23.79%) and pilling (27.77). - Tested products 29 references were selected from products supplied by partner brands for this test campaign, out of a total of 33 references as follows: cotton at 56%, followed by polyester at 16% and linen at 13%; 93% for adults. - Test list and thresholds (no sport use) ISO 6330 / ISO 5077: dimensional change: 3 height and width measurements. Study of the highest value between the 2 averages, in absolute values, after 5 care cycles - Coef 6 max.: x ≤ 3%

ID	Section & line	Comment
		med: 3% < x ≤ 5% critical: x > 5% ISO 12947-2: abrasion by Martindale __ Part 2, 9kPa: number of cycles before 2 broken yarns. As received - Coef 3 max.: x > 25000 med: 15000 < x ≤ 25000 basic: 8000 < x ≤15000 critical: x ≤ 8000 ISO 13934-2: Tensile properties — Part 2 using the grab method (N) Lowest value among vertical + horizontal direction average after 5 care cycles - Coeff 9 max.: x > 300 med: 150 < x ≤ 300 basic: 100 < x ≤ 150 critical: x ≤ 100 "ISO 13937-1: Tear — Part 1 (Elmendorf) (N) Lowest value among vertical+ horizontal direction average after 5 care cycles - Coef 9 max.: x > 12 med: 8 < x ≤ 12 basic: 6 < x ≤ 8 critical: x ≤ 6 ISO 13936-2: seam slippage— Part 2 (mm). Average force 5 side measurements on the weakest seam or, failing that, on the inside seam, after 5 care cycles - Coeff 4 max.: x ≤ 2 med: 2 < x ≤ 4

ID	Section & line	Comment
		basic: 4 < x ≤ 6 fail: x > 6 ISO 15487: Aspect assessment: fabric aspect holes on finished product, according to scale: 1 presence of hole/ 5 absence after 15 care cycles - Coeff 6 max.: x = 5 critical: x = 1 ISO 15487: Aspect assessment. Interlining +reinforcements: Curled/blistered on finished product, considering the lowest value according to a 5 points scale, after 15 care cycles - Coeff 4 max.: x ≥ 4.5 med: x = 4 basic: x = 3,5 fail: x ≤ 3 ISO 15487: Aspect assessment: pilling, fuzzing and matting on finished product, considering the lowest value after 15 care cycles - Coeff 2 max.: x ≥ 4.5 medium: x = 4 basic: 2,5 < x ≤ 3,5 fail: x ≤ 2,5 ISO 15487: Aspect assessment: Fabric appearance, smoothness on finished product after 15 care cycles - Coeff 2 max.: x ≥ 4 medium: x = 3.5 basic grade 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: Aspect assessment. Seam appearance: Smooth and pucker on finished product, considering the lowest value after 15 care cycles - Coeff 2

ID	Section & line	Comment
		max.: x ≥ 4 medium: x = 3.5 basic grade 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: Aspect assessment. Handling of functional accessories on finished product, the lowest value 5 points scale (1: unusable to 5: functional). No half grades, after 15 care cycles - Coef 3 max.: x = 5 medium: x = 4 basic: x = 3 fail: x ≤ 2 ISO 15487: Aspect assessment. Trims and accessories appearance on finished product, considering the lowest value among the different criteria after 15 care cycles - Coeff 2 max.: x ≥ 4.5 med: 3.5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 15487: Aspect assessment. Colour change: Prints & embroideries on finished product after 15 care cycles - Coeff 2 max.: x ≥ 4.5 medium: 3.5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 15487: Aspect assessment: Colour change, on finished product after 15 care cycles - Coef 4 max.: x ≥ 4.5

ID	Section & line	Comment
		med: 3.5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 Allegation review according to identified standards, see dedicated reference frame - Coef 1 - Results analyse The tested shirts have scores from 4.89 to 14.62 out of 15. 8 references have a physical durability's score below7,5/15 due to various defects (dimensional stability, tensile strength, abrasion or tear resistance). The mass of the products is not directly correlated with their overall rating. The 5 polyester items studied have narrow scores, whereas cotton, linen or blends, the range of scores is wide. Articles with the same majority composition can have a score from 6 to 11/15, highlighting the impact of the different stages of the value chain in enabling article articles to be durable, over and above the choice of fibre or weight
926	9.2.1.3 How to assess physical durability; Table 44 - 2939	DURHABI's results and recommendations for sweaters and midlayers category - Category definition: All tops above a layer 1 (layer 2) with or without sleeves (long or short), pullovers, cardigans, hoodies, jogging jackets, sweatshirts, cardigans, etc. - brands results: The main reason why sweater and midlayers are returned to stores are pilling (9%) for ready-to-wear products; and pulled yarn (6%) deformation and damaged accessories (both 9%) for sports products. - Consumer results Two main causes of end-of-life for sweater according to consumer feedback: deformation/ elasticity (53%) and pilling (70%): coef 3. Holes and tears (26%) coef 2 are the next cited causes - Tested products 28 references were selected: 64% for ready-to-wear and 36% for sport, the majority of which are dedicated to adults (89%). Cotton articles represented 37% of the sample, followed by wool products (26%) and polyester sweaters (18%). Other materials are represented including polyamide, acrylic, viscose, linen, modal/lyocell and cashmere or alpaca. - Test list and thresholds ISO 6330 / ISO 5077: dimensional change (%)3 height and width measurements. Study of the highest value between the 2 averages in absolute values

ID	Section & line	Comment
		after 5 care cycles - Coef 6 max.: x ≤ 3% med 3% < x ≤ 5% basic: 5% < x ≤ 7% critical: x > 7% ISO 16322-3: spirality— Part 3 (%). Method B in absolute values, after 5 care cycles - Coef 3 / 9 for sport max.: x ≤ 5% medium: 5% < x ≤ 7% basic: 7% < x ≤ 10% critical: x > 10% ISO 12947-2: abrasion resistance__ Part 2 9 Kpa, Number of cycles before 1 broken yarn. As received - Coef 4 max.: x > 35000 med: 20000 < x ≤ 35000 basic: 12000 < x ≤ 20000 fail: x ≤ 12000 for sport: coef 6 max.: x > 35000 med: 25000 < x ≤ 35000 basic: 20000 < x ≤ 25000 critical: x ≤ 20000 ISO 13938-1 (or 2): Bursting— Part 1 (kPa) 7,3cm^2. As received - Coef 4 max.: x > 600

ID	Section & line	Comment
		med: 450 < x ≤ 600 basic: 250 < x ≤ 450 fail: x ≤ 250 for sport: coef 6 max.: x > 600 med: 450 < x ≤ 600 basic: 300 < x ≤ 450 critical: x ≤ 300 ASTM D3939: Snagging (Mace). Study of the lowest value of the results of each direction as received - Coef 3 max.: x ≥ 4,5 med: x = 4 basic: 3 ≤ x ≤ 3,5 fail: x ≤ 2,5 for sport: coef 3 max.: x ≥ 4,5 med: x = 4 basic: x = 3,5 fail: x ≤ 3 ISO 12945-1: pilling, fuzzing or matting — Part 1: Pilling box method 180 min, after 5 care cycles - Coef 9 max.: x > 4 med: 3 < x ≤ 4

ID	Section & line	Comment
		basic: 2 ≤ x ≤ 3 critical: x < 2 ISO 15487: Aspect assessment. Product aspect: holes/broken yarn on finished product, scale: 1 presence of hole / 5 absence after 15 care cycles - Coef 4 / coef 6 for sport max.: x = 5 fail: x = 1 ISO 15487: Aspect assessment: Fabric aspect. Pulled yarn on finished product, according to scale: 1 presence/ 5 absence of pulled yarn, after 15 care cycles - Coef 3 max.: x = 5 fail: x = 1 ISO 15487: Aspect assessment: collar&edges - looseness on finished product, scale: 1 visible change, 3 moderate, 5 negligible after 15 care cycles - Coef 3 / coef 9 for sport max.: x = 5 med: x = 3 critical: x = 1 ISO 15487: Aspect assessment: pilling, fuzzing and matting on finished product, considering the lowest value after 15 care cycles - Coef 9 max.: x > 4 med: 3 < x ≤ 4 basic: 2 < x ≤ 3 critical: x ≤ 2 ISO 15487: Aspect assessment: Fabric aspect, smoothness finished product after 15 care cycles - Coef 1 max.: x ≥ 4 medium: x = 3.5

ID	Section & line	Comment
		basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: Aspect assessment. Seam aspect: Smooth on finished product, considering the lowest value after 15 care cycles - Coef 2 max.: x ≥ 4 med: x = 3.5 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: Aspect assessment. Handling of functional accessories on finished product, considering the lowest value, 5 points scale (from 1: unusable to 5: functional). No half grade, after 15 care cycles - Coef 1 max.: x = 5 medium: x = 4 basic: x = 3 fail: x ≤ 2 ISO 15487: Aspect assessment. Trims and accessories aspect on finished product, the lowest value after 15 care cycles - Coef 1 max.: x ≥ 4.5 medium: 3.5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 15487: Aspect assessment. Colour change: Prints & embroideries on finished product after 15 care cycles - Coef 1 max.: x ≥ 4.5 med: 3.5 ≤ x ≤ 4 basic: x = 3

ID	Section & line	Comment
		fail: x ≤ 2,5 ISO 15487: Aspect assessment: Colour change on finished product after 15 care cycles - Coef 1 / sport coef 2 max.: x ≥ 4.5 med: 3.5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 Allegation review According to identified standards see dedicated reference frame - Coef 1 - Results analyse We can see that the several tested compositions (fibres) are distributed according to their durability scores: there is no logic in terms of composition, brand or use. The score range of blended (wool/alpaca) or polyester products tested is great, highlighting the disparities in the physic
927	9.2.1.3 How to assess physical durability; Table 44 - 2939	DURHABI's results and recommendations for trousers and shorts category - Category definition Any bottoms worn over a layer 1 (layer 2), with legs (long or short), trousers, jeans, denim, shorts... jumpsuits -shorts, -pants - brands results 103 articles from 40 different brands were reported in our enquiry. The main reason for returns to stores was deterioration of seams (8%) and colours fastness (8%) for ready-to-wear trousers, while loss or breakage of accessories/buttons (7%) was the main reason for returns of sport products. Pilling is more common for sportswear (5%). - Consumer results Holes or tears account for more than 70% of end-of-life causes and thus, need to be revealed by specific dedicated trials like abrasion and burst. Then, consumers highlighted the deformation of products (35%): coef 3. Seams defaults (24.8%, trims defaults (30%) and colour fastness are then cited by consumers (coef 2). - Tested products 33 references were selected on 37 references. 69% were made of cotton, 83% in warp and weft, for an adult target and ready-to-wear use. Sports trousers accounted for 5%, 2 pairs of shorts and 10 jeans were studied, which explains the proportion of cotton products. - Test list and thresholds

ID	Section & line	Comment
		For woven products: ISO 6330 / ISO 5077: dimensional change (%) 3 height and width measures: side + inside length and waist + thigh circumference. In absolute values. Study of the highest value between the two averages After 5 care cycles - Coef 6 / sport coef 3 max.: x ≤ 3% med: 3% < x ≤ 5% critical: x > 5% ISO 20932-2: elasticity of fabrics - Part 2: Multiaxial tests - Method A (bagging) (mm) residual deformation after 60 sec. As received - Coef 3 max.: x ≤ 4 med: 4 < x ≤ 10 basic: 10 < x ≤ 15 critical: x > 15 ISO 12947-2: abrasion by Martindale __ Part 2 at 9kPa: Number of cycles before 2 broken yarns, after 5 care cycles - Coef 6 max.: x > 25000 med: 15000 < x ≤ 25000 basic: 8000 < x ≤ 15000 critical: x ≤ 8000 for sport - coef 6 max.: x > 40000 med: 30000 < x ≤ 40000 basic: 20000 < x ≤ 30000 critical: x ≤ 20000 ISO 13934-2: Tensile— Part 2: grab method (N) Lowest value among vertical + horizontal direction average. As received - Coef 6

ID	Section & line	Comment
		max.: x > 300 med: 200 < x ≤ 300 basic: 120 < x ≤ 200 critical: x ≤120 for sport - Coeff 3 max.: x > 400 med: 250 < x ≤ 400 basic: 150 < x ≤ 250 critical: x ≤150 ISO 13937-1: Tear — Part 1: (Elmendorf) (N) Lowest value among vertical + horizontal direction average after 5 care cycles - Coef 6 max.: x > 15 med: 10 < x ≤ 15 basic: 6 < x ≤ 10 Critical : x ≤ 6 For sport – coef 3 max.: x > 20 med: 15 < x ≤ 20 basic: 6 < x ≤ 15 critical: x ≤ 6 ISO 13936-2: seems' slippage— Part 2: Fixed load method (mm): Average force. 5 side measures on the weakest seam or, on the inside seam. After 5 care cycles - Coef 4

ID	Section & line	Comment
		max.: x ≤ 2 med: 2 < x ≤ 4 basic: 4 < x ≤ 6 fail: x > 6 for sport – coef 2 max.: x ≤ 1.5 med: 1.5 < x ≤ 3.5 basic: 3,5 < x ≤ 5,5 fail: x > 5,5 ISO 12945-2: pilling, fuzzing or matting - Part 2. fabric against fabric at 5000 cycles after 5 care cycles - Coef 2 / sport coef 3 max.: x ≥ 4.5 med: 3.5 ≤ x ≤ 4 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: Aspect assessment. Product aspect: holes on finished product, scale: 1 presence of hole/5 absence. After 15 care cycles - Coef 6 max.: x = 5 critical: x = 1 ISO 15487: Aspect assessment: pilling, fuzzing and matting on finished product, lowest value among the different criteria after 15 care cycles - Coef 2 / sport coef 3 max.: x ≥ 4.5 med: x = 4 basic: 2,5 < x ≤ 3,5

ID	Section & line	Comment
		fail: x ≤ 2,5 ISO 15487: Aspect assessment. Fabric aspect, smoothness on finished product after 15 care cycles - Coef 1 max.: x ≥ 4 med: x = 3.5 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: Aspect assessment. Seam aspect: Smooth &pucker on finished product, lowest value after 15 care cycles - Coef 2 max.: x ≥ 4 med: x = 3.5 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: Aspect assessment. Handling of functional accessories on finished product, considering the lowest value according to a 5 points scale (1: unusable to 5: functional). No half grades; After 15 care cycles - Coef 6 max.: x = 5 med: x = 4 basic: x = 3 critical: x ≤2 ISO 15487: Aspect assessment. Trims aspect on finished product, considering the lowest value among the different criteria after 15 care cycles - Coef 1 / sport coef 2 max.: x ≥ 4.5 med: 3.5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5

ID	Section & line	Comment
		ISO 15487: Aspect assessment. Colour change: Prints / Embroideries on finished product after 15 care cycles - Coef 1/ sport coef 2 max.: x ≥ 4.5 med: 3.5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 15487: Aspect assessment: Colour change on finished product after 15 care cycles - Coef 6 / sport – coef 4 max.: x ≥ 4.5 med: 3.5 ≤ x ≤ 4 base: x = 3 critical: x ≤ 2.5 see following comment for knitted
928	9.2.1.3 How to assess physical durability; Table 44 - 2939	DURHABI's results and recommendations for trousers and shorts category For knitted products - Test list and thresholds ISO 6330 / ISO 5077: dimensional change (%) 3 height and 3 width measurements: side + inside length and waist (3cm below belt) + thigh circumference. In absolute values. Study of the highest value between the two averages, after 5 care cycles - Coef 6 / sport: coef 3 max.: x ≤ 3% medium: 3% < x ≤ 5% basic: 5% < x ≤ 7% critical: x >7 % ISO 13938-1 (or 2): Bursting (kPa), 7,3cm^2 as received - Coef 6

ID	Section & line	Comment
		Max.: x > 400 medium: 300 < x ≤ 400 basic: 250 < x ≤ 300 critical: x ≤ 250 ISO 20932-2: elasticity of fabrics - Part 2: Multiaxial tests - Method A (bagging) (mm), elasticity Average elongation 60 sec, as received - Coef 3 max.: x ≤ 4 medium: 4 < x ≤ 10 basic: 10 < x ≤ 15 critical: x > 15 ISO 12947-2: abrasion __ Part 2 at 9kPa, number of cycles before 1 broken yarn, after 5 care cycles - Coef 6 max.: x > 25000 medium: 15000 < x ≤ 25000 basic: 8000 < x ≤ 15000 critical: x ≤ 8000 for sport – coef 6 max.: x > 40000 medium: 30000 < x ≤ 40000 basic: 20000 < x ≤ 30000 critical: x ≤ 20000 ASTM D3939: Snagging (mace). Study of the lowest value of the results of each direction only for sport articles – coef 1 As received - Coeff 1 max.: x ≥ 4.5

ID	Section & line	Comment
		medium: 3,5 ≤ x ≤ 4 critical: x ≤ 3 ISO 12945-1: pilling, fuzzing or matting — Part 1: 180 min after 5 care cycles - coef 2 / sport coef 3 max.: x ≥ 4.5 medium: 3.5 ≤ x ≤ 4 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: aspect assessment: holes on finished product, according to scale: 1 presence of hole/5 absence after 15 care cycles - Coeff 6 max.: x = 5 critical: x = 1 ISO 15487: aspect assessment: pilling, fuzzing, matting on finished product, considering the lowest value among the different criteria after 15 care cycles - Coef 2 / sport coef 3 max.: x ≥ 4.5 medium: x = 4 basic: 2,5 < x ≤ 3,5 fail: x ≤ 2,5 ISO 15487: aspect assessment: Fabric appearance, smoothness on finished product after 15 care cycles - Coeff 1 max.: x ≥ 4 medium: x = 3.5 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: aspect assessment. Seam appearance: Smooth and pucker on finished product, considering the lowest value after 15 care cycles- Coef 2

ID	Section & line	Comment
		max.: x ≥ 4 medium: x = 3.5 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: aspect assessment. Handling of functional accessories on finished product, considering the lowest value according to a 5 points scale (1: unusable to 5: functional). No half grades, after 15 care cycles - Coef 6 max.: x = 5 medium: x = 4 basic: x = 3 fail: x ≤ 2 ISO 15487: aspect assessment. Trims and accessories appearance on finished product, considering the lowest value after 15 care cycles - Coef 1/ sport coef 2 max.: x ≥ 4.5 medium: 3.5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2.5 ISO 15487: aspect assessment. Colour change: Prints & embroideries on finished product after 15 care cycles - Coef 1 / sport coef 2 max.: x ≥ 4.5 medium: 3.5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2.5 ISO 15487: aspect assessment: Colour change on finished product after 15 care cycles - Coef 6 / sport coef 4

ID	Section & line	Comment
		max.: x ≥ 4.5 medium: 3.5 ≤ x ≤ 4 basic: x = 3 critical: x ≤ 2.5 Allegation review according to identified standards see dedicated reference frame - Coeff 1 - Results analyse Most DURHABI samples were above average of physical durability according to the proposed calculation method, irrespective of their predominant composition, including wool and linen products. In addition, for the two linen tested samples, the range of physical durability scores is also large. This is also the case here for the cotton tested articles. We can notice some disparities for the products performances in terms of physical durability for a same composition. The results for a given material depend more on the manufacturing choices made by manufacturers along the value chain for the type of product designed, than on the fibre itself. There is no real logic in terms of brands, composition or grammage: it is not possible to establish a linear relationship (correlations) between these parameters and the physical durability scores calculated for each tested product of the sampling, using the proposed method at the end of the DURHABI project.
929	9.2.1.3 How to assess physical durability; Table 44 - 2939	DURHABI's results and recommendations for dresses and skirts category - Category definition Long or short dresses, with or without sleeves, long or short skirts, - with or without sleeves, pyjamas 1 piece with or without feet, nighties, onesies and rompers for babies. - brands results The brand's DURHABI survey, contains 20 references from 6 different brands for the dresses and skirts category. All returns are attributed to ready-to-wear products (no sport sub-category is needed because sport dresses and skirts are a niche market and not really associated to specific expectations, not different from the ready to wear products). The results of this survey show that the main cause of end-of-life for dresses/skirts is broken seams (16%), followed by deterioration of accessories (14%), colour fastness (14%) and dimensional change (11%). -Consumer results

ID	Section & line	Comment
		The consumer survey shows that product deformation is the most serious problem (46% coef 3). This is followed by pilling (38%), holes (33%), seams (23%), colour fastness (24%), and defective accessories and ornaments (22%), all rated 2. - Tested products 30 references were selected on 41 supplied by partners. 57% of products were in wovens and 43% knitted. Most of the samples tested were in cotton (34%) or polyester (30%), followed by blends and viscose (10%), then linen (7%). The sample counted 4 skirts and 2 rompers. According to market data provided by PEF-CR: cotton was less represented whereas linen was more represented in the DURHABI sample. - Test list and thresholds For woven products: ISO 6330 / ISO 5077: dimensional change (%) 3 height and 3 width measures. the highest value between the 2 averages in absolute values after 5 care cycles - Coeff 9 max.: x ≤ 3% medium: 3% < x ≤ 5% critical: x > 5% ISO 20932-2: elasticity of fabrics - Part 2: Multiaxial tests - Method A (bagging) (mm) residual deformation after 60 sec (bagging), as received - Coeff 6 max.: x ≤ 4 med: 4 < x ≤ 10 basic: 10 < x ≤ 15 critical: x > 15 ISO 12947-2: abrasion by Martindale method __ Part 2, 9kPa. Number of cycles before 2 broken yarns, as received - Coeff 4 max.: x > 25000 med: 15000 < x ≤ 25000 basic: 8000 < x ≤ 15000 fail: x ≤ 8000

ID	Section & line	Comment
		ISO 13934-2: Tensile properties — Part 2: grab method (N) Lowest value among vertical + horizontal direction average after 5 care cycles - Coeff 2 max.: x > 300 medium: 150 < x ≤ 300 basic: 100 < x ≤ 150 fail: x ≤ 100 ISO 13937-1: Tear— Part 1: Elmendorf (N) Lowest value among vertical + horizontal direction average after 5 care cycles - Coeff 2 max.: x > 12 med: 8 < x ≤ 12 basic: 6 < x ≤ 8 fail: x ≤ 6 ISO 13936-2: seams' slippage— Part 2 (mm) Average force 5 side measurements on the weakest seam or, failing that, on the inside seam, after 5 care cycles - Coeff 2 max.: x ≤ 2 med: 2 < x ≤ 4 basic: 4 < x ≤ 6 fail grade > 6 ISO 15487: aspect assessment. Product aspect: holes on finished product, according to a scale: 1 presence / 5 absence of hole after 15 care cycles - Coeff 4 max.: x = 5 fail: x = 1 ISO 15487: aspect assessment: pilling, fuzzing and matting finished product, considering the lowest value among the different criteria after 15 care cycles - Coeff 4 max.: x ≥ 4.5

ID	Section & line	Comment
		med: 3.5 ≤ x ≤ 4 basic grade 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: aspect assessment. Fabric appearance, smoothness on finished product after 15 care cycles - Coeff 1 max.: x ≥ 4 medium: x = 3.5 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: aspect assessment. Seam appearance: Smooth and pucker finished product, considering the lowest value after 15 care cycles - Coeff 2 max.: x ≥ 4 medium: x = 3.5 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: aspect assessment. Handling of functional accessories on finished product, considering the lowest value according to a 5 points scale (1: unusable to 5: functional). No half grades, after 15 care cycles - Coeff 6 max: x = 5 medium: x = 4 basic: x = 3 critical: x ≤ 2 ISO 15487: aspect assessment. Trims and accessories appearance on finished product, considering the lowest value after 15 care cycles - Coeff 6 max.: x ≥ 4.5 medium: 3.5 ≤ x ≤ 4

ID	Section & line	Comment
		basic: x = 3 critical: x ≤ 2.5 ISO 15487: aspect assessment. Colour change: Prints & embroideries on finished product after 15 care cycles - Coeff 6 max.: x ≥ 4.5 medium: 3.5 ≤ x ≤ 4 basic: x = 3 critical: x ≤ 2.5 ISO 15487: aspect assessment: Colour change on finished product after 15 care cycles Coeff 6 max.: x ≥ 4.5 medium: 3.5 ≤ x ≤ 4 basic: x = 3 critical: x ≤ 2.5 Allegation review According to identified standards see dedicated reference frame - Coeff 1 see following comment for knitted products and results analyse
930	9.2.1.3 How to assess physical durability; Table 44 - 2939	DURHABI's results and recommendations for dresses and skirts category - Test list and thresholds For knitted products: ISO 6330 / ISO 5077: dimensional change 3 height and width measurements. Study of the highest value between the 2 averages in absolute values after 5 care cycles - Coeff 9 max: x ≤ 3% med: 3% < x ≤ 5%

ID	Section & line	Comment
		basic: 5% < x ≤ 7% critical: x > 7% ISO 16322-3: spirality— Part 3 (%). Method B after 5 care cycles - Coeff 6 max: x ≤ 5% med: 5% < x ≤ 7% basic: 7% < x ≤ 10% critical: x > 10% ISO 20932-2: elasticity - Part 2- Method A (bagging) (mm) residual deformation after 60 sec. As received - Coeff 6 max: x ≤ 4 med: 4 < x ≤ 10 basic: 10 < x ≤ 15 critical: x > 15 ISO 13938-1 (or 2): Bursting— Part 1(kPa) 7,3cm²as received - Coeff 4 max: x > 600 medium: 450 < x ≤ 600 basic: 250 < x ≤ 450 fail: x ≤ 250 ASTM D3939: Snagging (Mace) Study of the lowest value of the results of each direction. As received - Coeff 2 max: x ≥ 4.5 medium: x = 4 basic: 3 ≤ x ≤ 3,5 fail: x ≤ 2,5

ID	Section & line	Comment
		ISO 12945-1: pilling, fuzzing or matting — Part 1: 180 min after 5 care cycles - Coeff 4 max grade x ≥ 4.5 medium: 3,5 ≤ x ≤ 4 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: aspect assessment. Product aspect: holes on finished product according to scale: 1 presence /5 absence of hole after 15 care cycles - Coeff 4 max: x = 5 fail: x = 1 ISO 15487: aspect assessment: Fabric appearance. Pulled yarn on finished product, according to scale: 1 presence / 5 absence of pulled yarn after 15 care cycles - Coeff 2 max.: x = 5 fail: x = 1 ISO 15487: aspect assessment: pilling, fuzzing and matting on finished product, taking into account the lowest value after 15 care cycles - Coeff 4 max: x ≥ 4.5 medium grade: x = 4 basic: 2,5 < x ≤ 3,5 fail: x ≤ 2,5 ISO 15487: aspect assessment: Fabric appearance, smoothness on finished product after 15 care cycles - Coeff 1 max grade x ≥ 4 medium: x = 3.5 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2

ID	Section & line	Comment
		ISO 15487: aspect assessment. Seam appearance: Smooth and pucker finished product, considering the lowest value after 15 care cycles - Coeff 2 max grade x ≥ 4 medium: x = 3.5 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: aspect assessment. Handling of functional accessories on finished product, considering the lowest value according to a 5 points scale (1: unusable to 5: functional). No half grades, after 15 care cycles - Coeff 6 max: x = 5 medium: x = 4 basic: x = 3 critical: x ≤ 2 ISO 15487: aspect assessment. Trims and accessories appearance finished product, considering the lowest value among the different criteria after 15 care cycles - Coeff 6 max: x ≥ 4.5 medium: 3,5 ≤ x ≤ 4 basic: x = 3 critical: x ≤ 2.5 ISO 15487: aspect assessment. Colour change: Prints & embroideries on finished product after 15 care cycles - Coeff 6 max grade x ≥ 4.5 medium: 3.5 ≤ x ≤ 4 basic: x = 3 critical: x ≤ 2.5

ID	Section & line	Comment
		ISO 15487: aspect assessment: Colour change on finished product after 15 care cycles - Coeff 6 max grade x ≥ 4.5 medium: 3.5 ≤ x ≤ 4 basic: x = 3 critical: x ≤ 2.5 Allegation review according to identified standards: see dedicated reference frame - Coeff 1 Ø Results analyse The dresses and skirts in the DURHABI tested sample have scores ranging from 6.47 to 14.50 out of 15. Only one reference has a physical durability's score below the theoretical average of 7,5/15. The weight of the products is not directly correlated with their overall rating. The colours had no direct impact either. The articles tested in polyester and blends show a similar range of overall physical durability scores. The viscose and cotton items tested had lower overall averages, but their range was greater. The linen item has an average of 12.8/15. Principal composition is not directly correlated to physical durability's score.
931	9.2.1.3 How to assess physical durability; Table 44 - 2939	DURHABI's results and recommendations for jackets category - Category definition All tops above a layer 2 (layer 3) with or without sleeves (long or short), blazers, suit jackets, overcoats, other light jackets, rain jackets, parkas, down jackets, winter jackets - brands results 36 items were studied, from 8 brands. The main reasons were damage of accessories (18% for ready-to-wear and 4% for sportswear). Then, deterioration of seams (13%) +seams' slippage (4%). Finally, loss of performance (4%) and appearance change of the material (4%) and its pilling (2%). - Consumer results Holes count for 46% (coef 3), accessories defaults (40%), pilling (38%), as well as deformation/ elasticity (29%) and loss of claimed performance (27%), seam problems (23%): coef 2: the only category for which performance's loss is important, showing the necessity of checking claims (water repellency or waterproof).

ID	Section & line	Comment
		- Test list and thresholds For woven products: ISO 6330 / ISO 5077: dimensional change (%). In absolute values. Study of the highest value after 5 care cycles - Coeff 3 max.: x ≤ 3% med: 3% < x ≤ 5% critical: x > 5% ISO 12947-2: abrasion _ Part 2 at 9kPa Nb of cycles before 2 broken yarns, as received - Coef 6 max.: x > 25000 med: 15000 < x ≤ 25000 basic: 8000 < x ≤ 15000 critical: x ≤ 8000 sport – coef 3 max.: x > 40000 med: 30000 < x ≤ 40000 basic: 20000 < x ≤ 30000 critical: x ≤ 20000 ISO 13934-2: Tensile— Part 2 (N). Lowest value. As received - Coef 3 max.: x > 300 med: 200 < x ≤ 300 basic: 120 < x ≤ 200

ID	Section & line	Comment
		critical: x ≤ 120 sport – coef 3 max.: x > 400 med: 250 < x ≤ 400 basic: 150 < x ≤ 250 critical: x ≤ 150 "ISO 13937-1: Tear— Part 1: tear (N) Lowest value after 5 care cycles - Coef 3 max.: x >15 med 10 < x ≤ 15 basic: 6 < x ≤ 10 critical: x ≤ 6 sport – coef 3 max.: x > 20 med: 15 < x ≤ 20 basic: 10 < x ≤ 15 critical: x ≤ 10 ISO 13936-2: seams' slippage _Part 2: (mm) Average force: 5 Side measures on the weakest seam after 5 care cycles - Coef 4 max.: x ≤ 2 med: 2 < x ≤ 4 basic: 4 < x ≤ 6 fail: x > 6

ID	Section & line	Comment
		sport: coef 2 max.: x ≤ 1,5 med: 1,5 < x ≤ 3,5 basic: 3,5 < x ≤ 5,5 fail: x > 5,5 ISO 13936-2: seams' slippage— Part 2: (mm) (liningaverage force 5 side measures on the weakest seam after 5 care cycles - Coef 4 max.: x ≤ 2 med: 2 < x ≤ 4 basic: 4 < x ≤ 6 fail: x > 6 sport: coef 2 max.: x ≤ 2 med: 1,5 < x ≤ 3,5 basic: 3,5 < x ≤ 5,5 fail: x > 5,5 ISO 12945-2: pilling, fuzzing or matting - Part 2 at 5000 cycles as received - Coeff 2 max.: x ≥ 4.5 med: 3.5 ≤ x ≤ 4 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: aspect assessment. holes,, according to scale: 1 presence /5 absence after 5 care cycles - Coef 6 / sport: coef 3

ID	Section & line	Comment
		max.: x = 5 critical: x = 1 ISO 15487: aspect assessment. Interlining & reinforcements: Curled aspect lowest value after 5 care cycles - Coef 2 max.: x ≥ 4.5 med: x = 4 basic: x = 3,5 fail: x ≤ 3 ISO 15487: aspect assessment: pilling , lowest value after 5 care cycles - Coef 2 max.: x ≥ 4.5 med: 3,5 ≤ x ≤ 4 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: aspect assessment: smoothness after 5 care cycles - Coef 1 max.: x ≥ 4 med: x = 3,5 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: aspect assessment - Seam appearance, lowest value after 5 care cycles - Coef 2 max.: x ≥ 4 med x = 3.5 basic: 2,5 ≤ x ≤ 3

ID	Section & line	Comment
		fail: x ≤ 2 ISO 15487: aspect assessment. Seam appearance (lining, lowest value after 5 care cycles - Coef 2 max.: x ≥ 4 med: x = 3.5 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: aspect assessment. Handling of functional accessories on finished product, lowest value according to a 5 points scale (from 1: unusable to 5: functional). after 5 care cycles - Coef 6 / sport 4 max.: x = 5 med: x = 4 basic: x = 3 critical: x ≤ 2 ISO 15487: aspect assessment. Trims & accessories appearance, lowest value after 5 care cycles - Coef 1 max.: x ≥ 4.5 med: 3,5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 15487: aspect assessment. Prints & embroideries after 5 care cycles - Coef 1 max.: x ≥ 4.5 med: 3.5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5

ID	Section & line	Comment
		ISO 15487: aspect assessment: Colour change after 5 care cycles - Coef 2/ sport: 1 max.: x ≥ 4.5 med: 3.5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 15487: aspect assessment. Colour change (lining)after 5 care cycles - Coef 2 / sport: 1 max.: x ≥ 4.5 med: 3.5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 15487: aspect assessment: Colour migration between lining & fabric after 5 care cycles - Coef 2 / sport: 1 max.: x ≥ 4.5 med: x = 4 fail: x ≤ 3,5 ISO 105-B02: colour fastness to light, European A1 conditions. Method 3 - Blue wool 4 graded at 3 on the grey scale. Blue scale rating, as received - 1 max.: x ≥ 4 med: x = 3.5 fail:: x ≤ 3 Allegation according to identified standards: see framework - Coeff 4 / sport: 2
932	9.2.1.3 How to assess physical durability; Table 44 - 2939	DURHABI's results and recommendations for jackets&coats category - DURHABI philosophy This category was complex in terms of product typology, a working group identified 6 sub-categories & conclude that the required trials remained effective for all products: main consumer's expectations do not change whatever the season or product's type. This position was the same for all categories: to

ID	Section & line	Comment
		consider the uses & functions and not the production's inputs to set requirements; to be egal & uniform between categories, to develop an impartial & fair method. Thus, the function of the article defines its category (ex, covering the upper body). Durability requirements are defined by DURHABI to meet consumer's use expectations, which are the same whatever the fabric (thickness, grammage, fibre composition, colours, finishes, etc.) or the way the product is made. - Tested products 28 products including 6 blazers, 6 suit jackets, 4 down jackets, 4 coats, 3 parkas and 5 light jackets including 2 waterproof jackets were selected. 96% woven and 50% PET, for women (50%) & men (46) and mostly for ready-to-wear use (89%), 11% for sport. - Test list and thresholds For knitted products ISO 6330/ISO 5077: dimensional change (%) In absolute values. highest value after 5 care cycle - Coef 3 Max: $x \leq 3\%$ Med: $3 < x \leq 5\%$ basic: $5 < x \leq 7\%$ Critical $x > 7\%$ ISO 13938-1 (or 2): Bursting — Part 1: (Kpa) 7,3cm² as received - Coef 6 / sport coef 3 Max: $x > 400$ Med $300 < x \leq 400$ basic $250 < x \leq 300$ Critical: $x \leq 250$ ASTM D3939: Snagging: lowest value of each direction. As received - Coef 2 Max: $x \geq 4,5$ med: $x = 4$ basic: $3 \leq x \leq 3,5$

ID	Section & line	Comment
		fail: x ≤ 2,5 sport: coef 1 Max: x ≥ 4,5 med: x = 4 basic: x = 3,5 fail: x ≤ 3 ISO 12945-1: pilling, fuzzing or matting — Part 1, 180 min as received - Coef 2 Max x ≥ 4,5 Med: 3,5 ≤ x ≤ 4 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: aspect assessment - holes, according to scale: 1 presence /5 absence of hole after 5 care cycles - Coef 6 / sport coef 3 Max x = 5 Critical x = 1 ISO 15487: aspect assessment. Interlining & reinforcements: Curled/blistered aspect finished product, lowest value according to a 5 points scale, after 5 care cycles - Coef 2 Max ≥ 4,5 Med x = 4 basic x = 3,5 fail x ≤ 3 ISO 15487: aspect assessment: pilling, fuzzing and matting on finished product, lowest value after 5 care cycles - Coef 2 Max x ≥ 4,5

ID	Section & line	Comment
		med: 3,5 ≤ x ≤ 4 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: aspect assessment: Fabric appearance, smoothness on finished product after 5 care cycles – Coef 1 max.: x ≥ 4 med: x = 3,5 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: aspect assessment. Seam appearance on finished product, lowest value after 5 care cycles - Coef 2 Max x ≥ 4 Med x = 3,5 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: aspect assessment. Seam appearance: lining on finished product, lowest value after 5 care cycles - Coef 2 Max x ≥ 4 Med x = 3,5 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2 ISO 15487: aspect assessment. Handling of functional accessories on finished product, lowest value according to a 5 points scale (from 1: unusable to 5: functional). No half grades after 5 care cycles - Coef 6 / sport coef 4 max.: x = 5 med: x = 4

ID	Section & line	Comment
		basic: x = 3 critical: x ≤ 2 ISO 15487: aspect assessment. Trims & accessories appearance on finished product, lowest value. No half grades after 5 care cycles - Coef 1 Max x ≥ 4,5 med: 3,5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 15487: aspect assessment. Colour change: Prints & embroideries on finished product after 5 care cycles - Coef 1 Max: x ≥ 4,5 Med3,5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 15487: aspect assessment: Colour change on finished product after 5 care cycles - Coef 2 / sport coef 1 Max x ≥ 4,5 Med 3,5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 15487: aspect assessment: Colour change (lining) finished product after 5 care cycles - Coef 2 / sport coef 1 Max x ≥ 4,5 Med 3,5 ≤ x ≤ 4 basic: x = 3

ID	Section & line	Comment
		fail: x ≤ 2,5 ISO 15487: aspect assessment: Colour migration between Lining and main fabric on finished product after 5 care cycles - Coef 2 / sport coef 1 Max x ≥ 4,5 Med x = 4 fail: x ≤ 3,5 ISO 105-B02: tests for colour fastness — Part B02. European A1 conditions. Method 3 - Blue wool 4 graded at 3 on the grey scale. Blue scale rating, no test on white colour as received - Coef 1 Max grade x ≥ 4 Med grade x = 3,5 fail grade x ≤ 3 Allegation review according to identified standards: see dedicated reference frame - coef 4 Ø Results analyse The scores range from 8.65 to 15/15. No product has a score below 7.5/15. Products are not divided up according to colour, weight or composition: 100% PET products can be found throughout the table, as can 100% cotton or wool. There are heavier and lighter items among the samples with the highest and lowest scores. No direct impact of composition
933	9.2.1.3 How to assess physical durability; Table 44 - 2939	DURHABI's results and recommendations for underwear category - Definition Garment worn under clothing (layer 1), in direct contact with skin: boxers, underpants, briefs, panties, bras, female lingerie bodies, brassieres - brands results 249 references were reported, from 9 different brands. The main cause of returns to stores for underwear is tearing (37%), followed by seam problems (around 10%). Among these returns, 95% of end-of-life causes concern references used in ready-to-wear applications. Thus, no framework was proposed for sport. - Consumer results For tops: the principal consumers' end of life causes are deformation (67% coef 3), defaults on accessories (60% coef 3) and holes 30% coef 2), seams problems (26% coef 2). For bottom: deformation (72%) and holes (58%): coef 3 then, seams defaults (coef 2), accessories defaults (21%).

ID	Section & line	Comment
		- Tested products 41 articles: Polyamide 26%, cotton: 24%, and polyester: 12%. 50% bottoms, 26% bra, 12% brassieres and 10% boxer shorts. After expertise: very few products are designed for sports use: when they are, it is for providing extra support for the breasts, which cannot currently be measured. - Test list and thresholds for knitted products ISO 6330 / ISO 5077: dimensional change highest value between neckline area and semi-side area (1 & 2). In absolute values Or for bottom width in waist and leg opening (area 1 & 2). after 5 care cycles - coef 3 max.: x ≤ 3% med: 3% < x ≤ 5% basic: 5% < x ≤ 7% critical: x > 7% ISO 20932-3 method A: elasticity of fabrics — Part 3: Narrow fabrics (%) shoulder straps / or half waist for bottoms. 5 fatigue cycles-1 minute recovery, as received – coef 9 max.: x ≤ 7% med: 7% < x ≤ 15% basic: 15% < x ≤ 25% critical: x > 25% + ISO 20932-3 on half side between brackets &breasts. 5 fatigue cycles -1 minute recovery, as received - coef 9 max.: x ≤ 5% med: 5% < x ≤ 8% basic: 8% < x ≤ 10% critical: x > 10% non relevant for bottom

ID	Section & line	Comment
		ISO 12947-2: abrasion __ Part 2, 9kPa Number of cycles before 1 broken yarn. Non relevant for tops. For bottoms - coef 9 As received max.: x > 20000 medium: 10000 < x ≤ 20000 basic: 8000 < x ≤ 10000 critical: x ≤ 80000 ISO 13938-1 (or 2): Bursting— Part 1 or 2 (kPa) (7,3cm^2) On back area on all materials (complex) including lace (average of the 3 worst values). If does not burst, not considering in the score as received – top coef 6 / bottom: coef 9 max.: x > 300 medium: 150 < x ≤ 300 basic: 120 < x ≤ 150 critical: x ≤ 120 ISO 15487: aspect assessment: holes on finished product, scale: 1 presence / 5 absence of hole after 15 care cycles – top coef 6 / bottom coef 9 max.: x = 5 critical: x = 1 ISO 15487: aspect assessment: Underwire piercing on finished product, scale: 1 presence 5 absence of piercing after 15 care cycles - coef 6 max. grade: x = 5 critical: x = 1 not relevant for bottom ISO 15487: aspect assessment: elastane goes out finished product, scale: 1 presence 5 absence after 15 care cycles - coef 2

ID	Section & line	Comment
		max.: x =5 fail: x=1 ISO 15487: aspect assessment: Delamination, scale: 1 presence / 5 absence after 15 care cycles - coef 6 max.: x = 5 critical: x = 1 ISO 15487: aspect assessment: bra cup appearance. Curled/blistered aspect, 5 points scale after 15 care cycles - coef 1 max.: x ≥ 4.5 med: x = 4 basic: 3 ≤ x ≤ 3,5 fail: x < 3 not relevant for bottom ISO 15487: aspect assessment: pilling, considering the lowest value after 15 care cycles - coef 2 max: x ≥ 4.5 med: x = 4 basic: 2,5 < x ≤ 3,5 fail: x ≤ 2,5 ISO 15487: aspect assessment. Seam appearance: Smooth, delamination, pucker , lowest value after 15 care cycles - coef 2 max: x ≥ 4 med: x = 3,5 basic: 2,5 ≤ x ≤ 3 fail: x ≤ 2

ID	Section & line	Comment
		ISO 15487: aspect assessment. Handling of functional accessories, lowest value according to a 5 points scale (1: unusable to 5: functional). No half grades, after 15 care cycles – top: coef 9 / bottom: coef 6 max.: x = 5 medium: x = 4 basic: x = 3 critical: x ≤ 2 ISO 15487: aspect assessment. Trims &accessories appearance lowest value after 15 care cycles - coef 1 max.: x ≥ 4.5 med: 3.5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 15487: aspect assessment. Colour change: Prints & embroideriesafter 15 care cycles - coef 1 max.: x ≥ 4.5 med: 3.5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 15487: aspect assessment: Colour change on finished product, after 15 care cycles - coef 2 max.: x ≥ 4.5 medium: 3.5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 ISO 105-E04: Colour fastness to perspiration. lowest value among the 14 staining + colour change results. Not required on white colour. As received - coef 1

ID	Section & line	Comment
		max.: x ≥ 4.5 med: 3.5 ≤ x ≤ 4 basic: x = 3 fail: x ≤ 2,5 Allegation review: according to identified standards. See dedicated reference frame - Coeff >>> See additional file for feedback &results
934	9.2.1.3 How to assess physical durability; Table 44 - 2939	Concerning product's categories: they shall be aligned with standard categories (see BNITH & CEN work, also PEF-CR inspired at 80% by DURHABI). Categories permitting to manage every type of products according to their expected use &functions (by consumers) are: 1- T-shirts (knitted, ready-to-wear/sport): All tops in contact with skin (layer 1) with or without sleeves, tank tops, T-shirts, polo shirts, bodysuits (excluding lingerie & corsetry), pyjamas t-shirts 2- shirts and blouses (woven, ready-to-wear): All tops in contact with the skin (layer 1) with or without sleeves, tunics, blouses, camisoles, pyjamas shirts 3- sweaters and midlayers (knitted, ready-to-wear or sport): All tops above a layer 1 (layer 2) with or without sleeves (long or short), jumpers, sweaters, cardigans, hoodies, sweatshirts, fleece and jogging's top & jackets 4- trousers and shorts (knitted or woven, ready-to-wear or sport): All hosiery, over a layer 1 (layer 2), with legs, trousers, jeans, shorts, bermudas, treggings, leggings, joggings; 1-piece pyjamas or suits with legs, with or without feet, babydolls, rompers and sleep-wells 5- skirts and dresses (knitted or woven, ready-to-wear): long or short dresses, with or without sleeves, long or short skirts, 1-piece skirt or dress suits, pyjamas: nighties, nightgowns (single use garment excluded) 6- coats and jackets (knitted or woven, ready-to-wear/sport): All tops above a layer 2 (layer 3) with or without sleeves, blazers, suit jackets, overcoats, light jackets, rain jackets, outdoor jackets, parkas, down jackets. Fur and Leather are excluded 7- underwear (knitted, ready-to-wear): Garment worn under clothing in contact with skin: boxers, panties, bras, bodysuit's, brassieres: tops & bottoms to be tested separately. 8- swimwear (knitted or woven, ready-to-wear/sport): garment worn in layer 1 in contact with skin. Bikinis, 1- or 2-pieces swimsuits, swim briefs or shorts, non-neoprene swim products: tops and bottoms to be tested separately. 9- stocking: (knitted, ready-to-wear/sport) all tights thin or thick, opaque or not, with or without feet, ankle socks, low socks, non-slip socks, gaiters. Socks with soles are excluded. Above or under 110 Dtex

ID	Section & line	Comment
		10- accessories: (knitted or woven, ready-to-wear): all textile piece to cover the head or the neck (cheches, pashminas, stoles, scarves, pareos, etc.) and soft hats (caps, other headwear), excluding gloves, belts and bags,. HOME: 11-bedding: (warp & weft only because no knitted products on DURHABI). All article to cover mattress, duvet and pillows: sleeping equipment: flat sheets, fitted sheets, pillowcases, from except for plaids and mattress pads, bedding protections. 12-houshold linen: (warp and weft only: no knitted products on DURHABI). All article for the house : table linen (tablecloths, napkins, runner), office linen (tea towels, aprons), bath linen (washcloth, towels, bathrobe), beach linen (beach towels, foutas) excluding wiping cloths (mops) and furnishing articles (carpets, curtains, plaids and cushion covers) Denim shall not be a separated category since denim products can have various performances like other products according to their structure and conception. We can find every type of denim thin or thick, robust or supple. The fact that they are denim shall not lead to specific framework. Moreover, you can find denim in many categories. Users didn't necessary accept denim fasting. Framework and test lists must be aligned with consumers' exigences and observed defaults. Composition or weight of a product shall not conduct to different requirements: same functions. Blouses and shirts have the same functions &users' expectations: to cover the top of the body in layer 1. they both are in warp and weft and should follow the same framework. Leggings should be with trousers and not stocking (as in PEF and standards). Tights & socks should integrate two subcategories: products under 100 deniers or 110 Dtex (veil or foam) and products above, which have not the same use and consumer's expectations. The proposed methodology takes the side of consumers' needs and expectations. The given information about durability should be concrete, &comparative: a very light & delicate product should be labelled as such, permitting the consumer to be informed on how to make it last, while a robust product should have a better score and be labelled as such. This is how we imagine a fair and universal framework with scoring method. DURHABI philosophy was accepted by partners' brands & consider the products specificities and needs during the caring process, following scrupulously the care instructions upstream if products are requiring specific attentions (handwashing program with soft standard detergent). But these specificities shouldn't lead to more tolerant requirements. Trials should be the same for every product of a category for a fair comparative method (depending on feasibility: applicable or not
935	9.2.1.3 How to assess physical durability; Table 44 - 2939	Concerning tests lists: Trials for woven are not adapted for knitted fabrics and vice versa, two separated tests lists must be given for each category integrating both technologies (manufacturing method), that is why DURHABI recommend a framework for knitted products, including: - ISO 16322-3 (spirality) not relevant on warp and weft: more structured products - ISO 13938-1 or 2 (equivalent) important to reveal a hole (7,3 cm^2 for every product' category)

ID	Section & line	Comment
		- ISO 12945-1 peeling, fuzzing and matting - ASTM D3939 or BS 8479 (snagging) in waiting ISO 25086 and a separate framework for woven products: - ISO13934-2 tensile properties - ISO 13936-2: seam slippage due to fabric slippage (more relevant & permitting to see more information than ISO 13935 which is more about initial quality) - ISO 13937-1: tear properties - ISO 12945-2 peeling, fuzzing & matting Common tests are: - dimensional change according to ISO 3759/ISO5077 and specific schemes for each product category to indicate where measurements should be done (average of 3 in the height and the length in absolute value): replaced by NF G30 101 for stocking and socks (with heel). - ISO 12947-2: abrasion > the most important test to reveal a hole - ISO 15487: aspect assessment after 15 cleaning cycles ISO 15487 (aspect after cleaning) is important for each category. It is a real important trial permitting the default research and inspection of the products after ageing. But we proposed further criteria to be diagnosed and more cleaning cycle before product inspection, to mimic the use and be able to reveal defaults (the inflection and vulnerability point we observed in graphs is after 15 washing cycles). New proposed criteria and scales: - fabric delamination (yes 1 or no 5) - holes (yes 1 or no 5) - pulled yarn (yes 1 or no 5) - broken elastane (yes 1 or no 5) - piercing of the underwire of the bra (yes 1 or no 5)

ID	Section & line	Comment
		- curled, blistered aspect of the bra cup (from 1 damaged to 5 intact) - collar &edge looseness (from 1 to 5) - interlining &reinforcement aspect (from 1 to 5) - washing marks (from 1 to 5) - colour migration from lining &main fabric (from 1 to 5) - functional accessories handling (from 1 to 5): an important criterion revealed by our enquiries for trousers, shirts, underwear & coats. DURHABI recommend testing trims directly on the cleaned constructed garment. Instructions are the following: test product on mannequin or hanger inside a visual rating cabin (see standard) and proceed to their evaluation. Handle trims on their entire stroke. Perform ten iterations on each type of accessory in their entire travel/operation: - Up and down the zip - Close and open pressures, sewn or nail buttons, - Integrity of cord end, eyelets and buttonholes, bra strap staples and adjustment buckles. Perform its function as per usage over a total of 10 iterations. The ISO 15487 is being updated by ISO committee to integrate DURHABI's recommendations and new items and scales. Some trials may not be relevant for some categories of products in detail (see DURHABI's framework attached and other submitted file). In another hand, some trials are needed for some categories to complete analyse and verify all the upcoming potential defaults: - ISO 13770-2 abrasion for tights >110 Dtex - ISO 20932-2 method A elasticity and bagging (for dresses and trousers): average elongation after 60 s. - ISO 20932-3 elasticity of narrow fabric (for underwear and swimwear straps or half waist) - ISO 105 E02 colour fastness to sea water for swimwear - ISO 105 E03 colour fastness to chlorinated water (50 mg/L of chlorinate) for swimwear - ISO 105 E04 colour fastness to perspiration for underwear

ID	Section & line	Comment
		- ISO 105 B02 colour fastness to light (for swimwear, coats and household linen) - and allegations review (explained later) - tests the lining of coats: ISO 15487 for seams aspect, colour change & ISO 13936-2 Specific operatory conditions are important for each trial and especially for the colour fastness to light so that trials can be reproducible: choose European A1 conditions, method 3 – blue wool 4 graded at 3 on the grey scale: blue scale rating. All colour fastness trials are not required on white colour (not dyed) products. Peeling trial must be maintained: it represents an important end-of-life cause for consumers and is complementary to peeling assessment according to ISO 15487. Indeed, in the first one, the peeling is the result of usury on the test bench only. In the other one, the peeling is just the result of friction during washing. They must be conducted in a complementary way. Important: a trial cannot be replaced by another one, each one showing a specific default appearing. Trials are complementary and necessary to verify all the possible problems encountered by consumers during a correct use. See specific DURHABI's frameworks per category & recommendations (in another file) and by e-mail
936	9.2.1.3 How to assess physical durability; Table 44 - 2939	About end-of-life causes: each trial is linked to an end-of-life cause, that is to say: textile defaults currently appearing during the use. They have been classified in different types: - Product deformation Dimensional change ISO 6330/ ISO 5077 or NF G30-101 (socks) Twist ISO 16322-3 (B) Bagging: ISO 20932-2 (method A) + elasticity: ISO 20932 –3 (method A), - Material strength burst: ISO 13938-1 or -2, Tearing, tensile Warp &Weft: ISO 13934-2 and ISO 13937-1 abrasion, aspect of a hole ISO 12947-2, EN 13770 (method 2) for socks seams slide (due to fabric slide) ISO 13936-2 - Degradation of material aspect

ID	Section & line	Comment
		Pilling, fuzzing & matting for knitted: ISO 12945-1, Warp & Weft: ISO 12945-2 Pilling, fuzzing and matting, Presence of hole, pulled yarn, looseness of collars and edges, interlining and reinforcements curled or blistered, underwire piercing, curled aspect of the bra cup, delamination, broken elastane ISO 15487 snagging ASTM D3939 +BS 8479: (Footwear <100d & swimwear) > see project ISO 25086 -Aspect of seams Smooth and puckered seams ISO 15487 - Colour fastness: Fastness to perspiration, light, sea water /pool water. Disgorgement on various materials according to ISO 105 E04, B02, E03, E02, Colour fastness to cleaning / transfer, prints/ embroidery colour change: ISO 15487 Ornaments and accessories damage: Trims and accessories aspect: prints, silkscreen, embroidery, haberdashery items are degraded, damaged, beads or sequins are lost. ISO 15487 Handling of functional accessories: no longer work ISO 15487. Product functions: performance claims Claimed loss of performance: water repellent ISO 4920, waterproof ISO 811, odour neutralizing ISO 17299-3, stretch ISO 20932-1 according to the claim identified on the product. About testing recommendations: Tests must be carried out on finished products exclusively, by an ISO 17025 accredited laboratory exclusively, in standard conditions to avoid bias on the data and to be the most repeatable and reproducible. A trial declared inapplicable by the laboratory and therefore without result must not be considered when calculating the physical durability rating. In case of several directions tested (ISO 13934-2, ISO13937-1, ASTMD3939) or several criteria evaluated in a same trial (ISO 12945-1 or 2), the average values obtained for each direction will be compared. The lowest average of horizontal or vertical test results, or between the different tested criteria (like peeling, fuzzing and matting) shall be used to determine which threshold is met and calculate the score.

ID	Section & line	Comment
		ISO 13938: Specificity for underwear: on the back area on all fabrics including the lace to be tested on the complex if applicable (study the average of the three minus good values of the series of measurements. If the material does not burst result must not be considered in the final notation. ISO 12947-2: Evaluation of the number of cycles before: - 2 broken yarns for woven products - or 1 broken yarn for knit products ISO 6330 / ISO 5077 for the dimensional change: Except for specific products, 3 height measurements +3 width measurements are expected. different "schemes" shows the measurements by product category. Result to consider is the highest value of the width &height averages. ISO 20932-3: This test shall be run using Method A on a 10 cm length of product and measured mounted on machine after 5 fatigue cycles and 1 minute recovery. For underwear +swimwear: measure shoulder straps, half waist and half bra strap between brackets and breast. ISO 105 E04, B02, E03, E02: study of the lowest value among the 14 staining and colour changes results (not required on white colour). ISO 15487: Any critical default that would be observed on either of the samples of a same tested reference shall be considered in the aspect trial according to ISO 15487: for example, if a hole is found during care cycles on an article intended for sampling (and not specifically for the aspect evaluation), thus this defect must be expressed by a 0 for the criteria "presence of holes" for Aspect assessment (even if the sample initially dedicated to the aspect evaluation would not even been holed). ISO 13770: Use of the lowest value of the 3averages: heel, toe +sole area (identify the most sensitive area in the sole). Sole (identify the most sensitive area in the sole). Test end if hole. Not performed on products below 110 Dtex. ISO 13936-2 seam slippage has been chosen by DURHABI experts instead of ISO 13935 seam strength for woven fabrics because it permits to reveal 2defaults: slippage + opening, which is more currently due to fabric slippage. ISO 13935 is not widely used in durability: it is more an initial quality parameter. ISO 13936-2 is therefore recommended to the study the products' seams: The reported value shall be the average force over 5 measurements on the weakest seam or, failing that, on an inside seam
937	9.2.1.3 How to assess physical durability; Table 44 - 2939	Concerning thresholds: In the expected characteristics for the new product: "±3%" for dimensional change of warp and weft products / "grade 4 or 5" for aspect assessment according to ISO 15487: these thresholds for instance are very high in regard with our database we can see that products are under these expectations even as received before ageing. An aspect result at 5 signifying: like the received product (as new) without any change after ageing, which is quite impossible to obtain.

ID	Section & line	Comment
		To be able to choose the best expected thresholds, the european commission must define what is the purpose of the ESPR for physicial durability: and what for > To ask for minimum requirements ? for what ? > to enter to the market? > to validate a product? > To award a bonus or a malus to products that do or do not meet minimum criteria? > or having a global evaluation tool to score the physicial durability performance of textile products and be able to compare them on a same basis? According to the answer and in case of minimum requirements, DURHABI experts recommend preferring thresholds less high to give the opportunity of amelioration and help European brands to manage this legislative turning. The chosen expectations in the table 44 are the best to obtain for DURHABI framework: they target better brands and products: it can be understandable for reward the most virtuous products for instance. They are ideal results. It cannot be chosen for a basic threshold and are inspirational. Very low thresholds (our limit for the lowest score in DURHABI) are 5% for dimensional change of warp and weft (woven) and 7% for knitted and 2-3 generally for aspect after domestic washing) (see DURHABI's framework in another submitted file) Choosing thresholds too high may be refused by brands and recommendations risks to be abandoned because not attainable. If you want to propose a scoring method then, we recommend basing your thresholds on our 4 classes model with coefficients and critical criteria to avoid compensations. we do not recommend a method implying to realize trials twice before and after washing, to avoid the cost and time duplication. For sport articles, DURHABI worked on specific thresholds including sportive expectations for resistance for several products categories concerned by specific sport articles like trousers and shorts, sweaters and midlayers, stocking, swimwear and coats. Sometimes just the abrasion threshold differs (like for stocking) sometimes it's more (tensile, tear, slippage, like for coats). Sport articles should resist to sport practise by users, including sport accessories like bag or inducing a lot of movements, friction and constraints on clothing. See details in DURHABI's frameworks send by e-mail to complete these comments.
938	9.2.1.3 How to assess physical durability; Table 44 - 2939	About the performances allegations control: on the table 44, are missing the performance claims control, for every category of products, but most important for jackets and coats, for example claimed as waterproof or repellent.

ID	Section & line	Comment
		This verification concerns only the claimed and labelled products and not products suspected to be performants according to their shapes or intended use. In DURHABI, some specific trials have been recommended to verify products' performance allegations (functionality) as total waterproofness of a product or fabric water repellency, for each category (only if mentioned by manufacturers). Trials being considered by DURHABI's partners and brands as durable parameters to be verified by testing are the followings (after a vote from the partners' brands / others are not or already covered by legislation like for PPE or medical products): - ISO 811: Determination of resistance to water penetration - Hydrostatic pressure test o on fabrics only for water resistance (impermeability to water) o on fabrics & seams for total waterproofness/tightness o after 5 cleaning cycles for coats, 15 for other articles o stop criteria: Passage of the 3rd drop Requirements on a system of 4 distinct performances classes: o Max grade 5000 mm H20 (giving 15 "durability" points to make a score - explained later) o Med grade 2000 mm H20 (giving 10 points) o Min grade 1000 mmH20 (giving 5 points) o Failure grade < 1000 mmH20 giving any points - ISO 4920: Determination of resistance to surface wetting (spray test) o T5 for jackets and coats o T15 for every other product' category if relevant

ID	Section & line	Comment
		o As new ≥ 4 o max: 4 o med: 3-4 o min: 3 o fail: < 3 - ISO 20932-1: stretch (different from 20932-2 bagging) Method A, measure after 1mn after 5 cleaning cycles o max grade ≥ 95% o med grade ≥ 90% o min grade ≥ 85% o fail grade < 85% - ISO 17299-3: antiodour after 5 cleaning cycles o Max grade : >= 95 % o Med grade >= 90 % o Min grade >= 85% o Fail grade < 85 % - ISO 14419: anti stain for household linen only as new > 6 o Max grade : 4

ID	Section & line	Comment
		o Med grade : 3-4 o Min grade : 3 o Fail grade : < 3 Other performances claims were voted as non-relevant for durability verification, since either the loss of performance is not perceptible by consumers, either it doesn't prevent the use of the product, or it is already regulated by standards and laws as for medical or protective clothing.
939	9.2.1.3 How to assess physical durability; Table 44 - 2939	About the identification of the tests for a product and the control plan elaboration by the brand and laboratories: Here are DURHABI's recommendations to elaborate the control plan for one "commercial reference": it is important to notice that a unique reference code may deploy in different articles from different colours, forms or composition, but also providers. To manage a control plan representative of the production really sold on the market and to facilitate the decisions and tests, DURHABI's experts suggest: - Physical durability must be tested on finished garments, presenting all finishing operations with the care label (before selling conditioning). - All tests must be carried out on the main fabric of the product. For a 50/50 constructed products, tests must be lead on each fabric. The lowest score should be considered. - These tests lists are not applicable to single use products, furs, leathers, sequins and beads products or having too much seems preventing the sampling of test pieces for instance. Other exceptions can exist. Laboratories are mandated to construct the control plan according to the possibilities given by a product. The bigger sizes of the products are recommended for the control plan. - All trials are to be carried out under the cover of accreditation on the number of standard specimens (according to ISO 17025). Inner House test cannot be agreed because they conduct to too much bias in the data. tolerance is accorded only for asked conditions adapted from standard for which no accreditation is possible. - For aspect assessment after washing: please note that: ISO 15487 is being rewrite and completed by ISO to contain new proposed criteria - For snagging: please note the next publication of international standards: ISO 25086-1 (based on ASTM D3939): currently under consultation (publication scheduled for the 1st half of 2026) and ISO 25086-2 (based on standard BS8479) in writing (consultation summer 2025)

ID	Section & line	Comment
		- About tests directly on fabrics and not from a real entire garment: proposal to carry out tests on finished fabric as the finished product: if it can be proved that this fabric is identical without modifications. - Colour tests: proposal to carry out the additional colour tests on the darkest and lightest colour (except white) and keep the unfavourable result. In case of extended range: tests on other colours at the manufacturer discretion, possibility to display an individual score per colour. - Model testing: proposal to study the model that has more elements (the most complex/ complete (a tee-shirt with sleeves will be prefer than a singlet for the same model). If a confectioner is in charge of a whole colour: test it. - Multi-sourcing: proposal to carry out tests on samples from majority confectioners whose consolidated volume represents at least 50% of the volume of the reference. The durability calculation thus made will be valid for the whole range. Each brand remains free of its control plan. No obligations in force to date. The brands have to judge the need to retry for all or part of the range according to the sourcing/manufacturing changes. These recommendations above have also been taken into account by the French eco-organism REFASHION (EcoModulation Durabilite_Tests et Seuils_2025.xlsx : see testing conditions tab) here: https://refashion.fr/pro/fr/les-%C3%A9co-modulations and here: https://refashioneco.sharepoint.com/sites/Communicationexterne/Documents%20partages/Forms/AllItems.aspx?id=%2Fsites%2FCommunicationexterne%2FDocuments%20partages%2FMetteurs%20en%20march%C3%A9%2FRessources%20%C3%A9co%2Dmodulations%202025%2FVersion%20fran%C3%A7aise&p=true&ga=1 (bilingual)
940	9.2.1.3; Line 2939 - Table 44 Line 2940	I. Modes de fabrication Important de préciser s'il s'agit de la maille ou un produit en chaine et trame. Les propriétés ne sont pas les mêmes. On peut obtenir un short en maille ou en trame et les exigences ne sont pas les mêmes. II. Technical fabric It is important to specify if it's knitted or woven product. The properties are note the same. You can have a short in knitted or in woven and the requirements are not the same.

ID	Section & line	Comment
		III. Missing tests Some tests should be added : spirality, abrasion. IV. Number of washes 2940 When measuring the characteristics of the new product, the tests addressing dimensional change and visual inspection need to be run after 1 cleaning cycle. It doesn't make sense to do new and after 1 wash. It doesn't reflect reality. In fact, a sufficient number of tests would have to be carried out. See Durhabi's methodology. V. Durhabi project Having participated in the Durhabi project, you can strongly rely on their results. They based their work on customer feedback, and then Durhabi tested the results accordingly. This was a 2-year project involving over 80 brands (including our brand). After a lot of meeting (all brands had share the recommendation to Durhabit) we validated their methodology.
973	9.2.1.3; 2944	The study cites "AITEX's knowledge" as the only source, which lacks transparency and is insufficient for substantiating durability claims. Given the importance of ecodesign requirements, it is critical to base conclusions on scientifically rigorous and well-substantiated evidence, on top of AITEX. Therefore, we urge for clearer and additional sourcing of durability data to ensure regulatory decisions are informed by robust scientific studies.
974	1.2.1.4 (Task 4); 9	This line makes the statement "Since pilling is the most common failure mode (see Table 4),". This isn't what the Cooper and Claxton paper they refer to actually says. In fact it says "The most common related to colour fading (particularly for jersey and woven fabrics) and pilling of knitwear and jersey items". So for pilling it is only the most common reason for disposal for knitwear and jersey (a type of knit) items. This misunderstanding has led to a pilling assessment in all garment categories, even garments such as jeans and rainwear that do not pill. Pilling is only a problem with certain garment types - not all.
976	2.9.1.3. (page 112); 2958 - 2960	This statement repeats the points previously addressed in lines 2929-2932. Seams in knitted fabrics can be more susceptible to failure due to their structural properties and higher elasticity compared to woven fabrics.

ID	Section & line	Comment
		Knitted fabrics are renowned for their elasticity, attributed to their looped structure. While this elasticity offers advantages in terms of comfort and fit, it also means that seams in knitted garments are subjected to greater tension during wear. This increased tension can make seams more susceptible to failure if not properly constructed. Among various fabric constructions, numerous additional parameters influence seam strength. We find no objective justification for limiting the consideration of this critical durability aspect solely to woven fabrics. References: Admassu, Y., Edae, A., Getahun, G., Kumar, S., Saravanan, K., & Sakthivel, S. (2022). Experimental analysis on the effect of fabric structures and seam performance characteristics of weft knitted cotton apparels. Journal of Engineered Fibers and Fabrics, 17. https://doi.org/10.1177/15589250221113479 Gürarda, A. (2019). Seam performance of garments. https://doi.org/10.5772/intechopen.86436 Borse, S., Sonawane, K., Kakde, M., & Shinde, T. (2020). Review on analysis of seam quality. https://doi.org/10.5772/intechopen.87999
977	2.9.1.3. (page 112); 2966	The study by Cooper and Claxton collected samples of garments intended for donation that were deemed unsuitable for the UK market and were subsequently sent to Pakistan. This indicates that the garments were still functional and not classified as waste.
978	9.2.1.3; 2967-2969	A very important conclusion, which might be presented more prominently and taken up as a definition.
979	9.2.1.3.; 2967	A very important conclusion, which might be presented more prominently and taken up as a definition
980	9.2.1.4; 2967	A very important conclusion, which might be presented more prominently and taken up as a definition.
981	2.9.1.3. (page 112); 2967-2969	This statement is based on the Cooper/Claxton 2022c study regarding disposal reasons. This study collected samples of garments intended for donation that were deemed unsuitable for the UK market and were subsequently sent to Pakistan. This indicates that the garments were still functional and not classified as waste.
983	9.2.1.3; 2970-2986	A product may not have excellent characteristics but can be more durable during maintenance. For example, a WR (water repellency) rating of 4 may withstand multiple washes, while a rating of 5 may degrade after the first wash, dropping from 5 to 4. A key distinction lies between the durability of performance (e.g., WR) and the durability of appearance (e.g., the intensity of digital printing after washing).

ID	Section & line	Comment
984	9.2.1.4; 2970	If the new products do not reach the first performance request (characteristics of the new products column), what happen ? Is the product considered as BC ?
986	9.2.1; 2974	We would like to point out that for wool fabric the dimensional change is larger, often more than 10%. However, chlorine-treated wool may have a lower dimensional change. Is it the plan to leave out wool-products which are not chlorine-treated from the ESPR?
987	2.9.1.3. (page 112); 2975-2977	Moving from pilling degree 4 to 5 may exclude certain materials, increase the use of chemicals during textile wet processing, and diminish the comfort and tactile qualities that consumers find appealing.
988	9.2.1.4; 2987	We agree that the accessory category is too heterogeneous and requires a special sub categorisation. A specific approach should be proposed later as it is important to have all categories concerned with durability.
989	9.2.1.4; 2987	Accessories. We agree with having no methodology for accessories due to the category being too heterogeneous.
991	2.9.1.3. (page 113); 2991	For such high thresholds, it will be necessary to exempt more fiber types than just silk.
992	9.2.1.4; Table 45 Line 3000-3009	The current calculation method for visual evaluations like pilling is flawed, as it penalizes products with better initial characteristics. A threshold should be set on post-wash performance rather than the new product. It's unclear why a 20% change is acceptable or how the 50% limit applies uniformly across different parameters. The proposed scale lacks data support and does not align with actual garment disposal patterns. We are also concerned about an accumulated durability score across multiple parameters. If a product performs well at an overall score, but fails just one critical parameter that makes it unusable or undesirable for consumers, what does the final score actually represent? JRC should clarify how different test results are weighted and normalized.
993	Bad case, BC, BAT and BNAT for physical durability; 3000 - 3010	Industry highly recommends for allowing for real life testing of the JRC's theoretical suggested approach and BC, BAT and BNAT calculation to determine the impact on different garments, materials and their functionality to ensure no unintended market consequences of the suggested methods.
994	9.2.1.3; 3000-3006	The way it is calculated for visual evaluations/pilling is not rewarding. The better the basic characteristics, the more you are penalized at the same final level: e.g. initial 5, final 3.5: decrease -30% ->fair e.g. initial 4, final 3.5: decrease 10% - > excellent It could work instead for physical and mechanical tests with continuous numbers. Is it not clear how a 20% change is acceptable? And that 50% is the maximum limit for everyone? So, how do you compare and combine parameters with different variations? Also, the proposed scale is not in line with the 20% increments. It seems too simplistic, not supported by data and unrelated to the actual disposal of the garments.
995	9.2.1.4; Page 113, line 3000-3006	We suggest that the choice of percentage ranges should be thoroughly substantiated. How have they been decided/what are they based on?
996	9.2.1.3; 3000	We welcome the proposal for introducing a durability scale. However, we call on basing the classes of performance on the PEF methodology.
1000	9.2.1.4; 3002 to 3006	What are the scientifical elements that has been used to determine this categorisation (aging pourcentages) ?

ID	Section & line	Comment
1001	9.2.1.4 Description of product technologies per category; 3002	About the proposed scoring method: The DURHABI project recommend 4 classes scoring method to literally score the durability performances of a textile product and to be understandable and easily communicable, but also incentive and aspirational (same philosophy than the PEF-CR scoring method): as follow, For each trial of each product's category, specific multiplier coefficients have been identified by the DURHABI technical committee according to: - the returns of consumers (level 1: causes of wasting) - and brands (level 2: causes of return of an article in stores: quality) during the dedicated mutliple national enquiries lead during the project. During these enquiries pushed by every partner, federation and national organization (like Alliance du commerce or UFIMH: French Fashion and Clothing Industries Union), opened questionnaires were proposed on-line with complete defaults lists (end of life causes) to tick by consumers or brands for each product category. Consumers enquiries (level 1) are based in totality on 47000 respondents dispatched for the 12 concerned products categories (see details on another file). Bands returns (level 2) are based on near of 1200 informed real market references' defaults. Multiplier coefficients are thus stemming from the defaults apparition's rates (occurrences) for each category. it concists of the multiplication of the consumer's data coefficient (from 1 to 3) with the brands data coefficient (from 1 to 3). The applied rules are as following: for consumer surveys: the percentages express the rates of consumers who have selected the end-of-life cause as relevant for the chosen category of products (1 to 15%: coef 1; 16 to 40%: coef 2; 41 to 100%: coef 3). For store returns: the percentages express the number of references among those in the database returned to stores for the defect in question (0 to 2%:

ID	Section & line	Comment
		coef 1; 3 to 5%: coef 2; 6 to + %: coef 3). Store returns have shown that the coefficients can be different depending on the use for an article of the same category. These final multiplier coefficients are going from 1 to 9 permitting the revelation and impact of the apparition of defaults that are important for users, on the product's score. A specificity in our model is that it is penalizing, that is to say that trials having a high consumer coefficient (3) OR a consumer coefficient of 2 x a brands coefficient of 3 are identified as critical (determinant for the product's category and the default type). A poor performance of a product for a critical trial causes the fall of the score for the concerned trial, but also for associated trials (for the same end of life cause) and thus, of the global physical durability score. This methodology and coefficient use permits to avoid compensatory performances. That is to say: to avoid that a product with an important default can benefit of a good global score thanks to good performances at non important trials. Indeed, if a knitted sweater is very pilled, it can have a great score in colour fastness or dimensional change, it will be damaged and not worn by a consumer anyway and considered as used and at the end of its life; what DURHABI wanted to expose via the impact of this rule on the global scoring. Then, each trial is attributing durability points according to results and performances of the tested sample. The received points number according to the 4 identified performance classes are the following: - max grade (aspirational): 15 points - medium: 10 points - basic: 5 points - failure or critical: 0 points or 0 points to the specific test AND to other tests from the same end of life cause.

ID	Section & line	Comment
		for instance: If the dimension has changed, thus both elasticity test and dimensional change must have a 0 because they both concerned the same end-of-life cause: product deformation. These points are multiplicated by the identified multiplier coefficient for this same trial, giving a global sum, which is divided by the total of the coefficients and reported in a score on 15 of in %. The score of 15/15 or 100% represents the best durability performances. Several models have been tested with different attributed points, but this one appeared to be the most relevant and discriminating. For minimum requirements you can focus on our basic grades. For best practises maybe chose medium or max grades according to trials and product's categories. You can also decide to fix a minimum of global score on 15 or 100 points. example of scoring are given in the new standard from the BNITH: NF G30 113-2 for the tee-shirt category.
1002	9.2.1; 2007-3011	We are concerned about how this would work and the value of this. We are concerned about aggregating many key parameters and hereby loss the value of each specific key parameter. If a key parameter is very bad, then the product does not "work", even if it overall meets the requirement of Decrease of performance level. E.g., if the dimensional change is so big that the garment does not fit, then the garment is useless for the user, regardless of high performance in the other key parameters. We recommend to set relevant minimum durability requirements related to fabric and not connected to product categories.
1003	9.2.1.3; 3009 Table 45	We seek clarification on how the JRC normalizes the various parameters? Colour fastness tests are in 20% increments (12.5% only the resistance to artificial light), while other values may not have the same loss of performance. For example, dimensional stability will generally not have strong percentage variations, a relatively low value (e.g.: 10%) is enough for a dress to no longer be wearable by the same person.
1004	9.2.1.4; 3009	Table 45 – Guidance on the calculation of performance. What is the meaning of this scoring/calculation? Is it meant to be communicated on each product?
1005	9.2.1.3; 3009	Table 45 (guidance on the calculation of performance): what is the meaning of this scoring/calculation? Is it meant to be calculated and communicated for each product? Please clarify.
1006	9.2.1.3.; 3009	as mentioned before, aging is NOT = washing x times, besides see as well comment 2911 f, this calculation would mean that a product with poor quality would be rated as good just because it does not get worse after washing. Are there any large-scale clothing tests using this formula?
1007	9.2.1.4; 3009	as mentioned before, aging is NOT = washing x times, besides see as well comment 2911 f, this calculation would mean that a product with poor quality would be rated as good just because it does not get worse after washing. Are there any large-scale clothing tests using this formula?

ID	Section & line	Comment
1009	2.9.1.3. (page 113); 3009	Table 45 - Question: Are the key parameters—such as abrasion resistance, bursting resistance, dimensional change, elasticity, seam resistance, and tensile strength—weighed equally for all products?
2364	10.9.2; Table 121 7833	The fact that chemical fibers are infinitely long only applies to filaments and not staple fibers. Also review the statement about tenacities and fineness, it varies greatly depending on whether it is viscose, modal, lyocell and how it is measured. Check references to this table to make sure it is correct.
2365	10.9.2 (page 352-353); 7833	The statement that "chemical fiber lengths can be considered continuous" is not entirely accurate, as it applies only to filament fibers. Man-made fibers can also be produced as staple fibers, which are cut into specific lengths to meet the requirements of various spinning technologies and desired end-product characteristics. Additionally, the provided values for fiber tenacity pertain solely to viscose and are much higher for other types of regenerated cellulose fibers. Modal and lyocell fibers exhibit significantly higher tenacities than viscose, which also vary considerably when measured in a conditioned (dry) state or in a wet state. Published reference: Bredereck K. Hermanutz F., Man-made cellulosics, Rev. Prog. Color. 35, page 67 (2005) Regarding fiber fineness, modal and lyocell are available in finer minimal fiber fineness compared to viscose. Currently, lyocell is available at a minimum linear density of 0.9 dtex, while modal is available at 0.8 dtex (source: Lenzing Aktiengesellschaft, the only European producer of all three generations of regenerated cellulose fibers).
2366	10.9.2 (page 352); 7849-7850	The spinning method has a direct impact on the fabric's pilling behavior and abrasion resistance.
2367	10.9.2 (page 359); 7858	Table 125: Understanding the impact of the spinning method on key physical durability parameters, such as pilling and abrasion resistance, is crucial for defining durability thresholds. Among the main spinning systems—ring, airjet, and OE—ring spinning offers the highest yarn tenacity and abrasion resistance for a given yarn count. However, it also results in the highest hairiness, which can contribute to pilling on the fabric surface. In contrast, airjet and OE spinning produce yarns with lower hairiness, reducing pilling but at the cost of lower abrasion resistance compared to ring spinning.
2368	10.9.2 (page 360); Table 126	There is no information on how weaving parameters influence the key physical durability aspects, such as pilling and abrasion resistance. For example, high thread count fabrics are typically made with finer yarns, which can reduce the abrasion resistance of the final fabric. Conversely, a higher fabric weight generally enhances abrasion resistance.

ID	Section & line	Comment
		Resistance to stains and water depends on used fibers and applied fabric finishing.

Annex 14. Comments on maintenance

Table 37. Comments on maintenance

ID	Section & line	Comment
1014	9.2.2; NA	Full alignment with the Textile Labelling Regulation (TLR) is essential for clarity, efficiency, and legal consistency. Maintenance requirements should not exceed those established under TLR.
1015	9.2.2 Maintenace; 3012 - 3127	It is fundamental to ensure legislative coherence with the scope and upcoming obligations to be framed under the revision of the Textiles Labelling Regulation (TLR). The industry calls on the JRC and on the European Commission not to set requirements for maintenance beyond what is being regulated under TLR. Withing the context of the value of mandating the information to be provided via digital means only, the suggestion to use the ISO standard as basis to provide symbols and iterations can only be supported if mandated via digital labelling only. If required on the physical label, this would increase the size of the label, its material environmental impact, costs for manufacturers and the likelihood for consumers to discard it. Furthermore, we would like to share the following corrections for Table 129. Comparison of international labelling systems: • US: Care is mandatory, but it may be conveyed either with symbols (ASTM) or via text. To provide for both is not required on the label as stated in the table • Canada: Care is optional and not mandatory, but if it is provided it can be conveyed either via symbols (Canadian General Standards Board (CGSB) in line with ASTM/ISO) or text. The use of both is not required. At the Canadian Federal level, care text can be indicated in either English or French. Quebec requires the text to be in French. • Japan: Care is required for any product, not only that made by domestic manufacturers. We would like to highlight that brands provide clean and care instructions to consumers to ensure the garment stays fit for purpose and to protect the life of the garment. The industry would like to inquire as to the source of the JRC's conclusion that this information is "provided by manufacturers to prevent customer complaints."
1016	9.2.2.; 3012-3022 and 3023-3076	There must be full alignment with the Textile Labelling Regulation (TLR) to ensure efficiency, clear definitions, and legal coherence. Do not set requirements for maintenance beyond what is being regulated under TLR.
1017	9.2.2; 3012 to 3127	Maintenance: The topic of overproduction and fast fashion again plays an important role here, as companies that want to promote a fast turnover in the

ID	Section & line	Comment
		consumption of textile apparel have no interest in providing clear care instructions on durable care labels. The focus of the ESPR should therefore be on defining requirements for mandatory care labels including the possibility for consumers to lodge complaints with independent bodies regarding missing, unclear or incorrect care instructions. In addition, the use of lower wash temperatures and natural drying methods (as opposed to tumble drying) should be encouraged.
1018	9.2.2; 3012-3127	It is fundamental to ensure full legislative coherence with the scope and upcoming obligations to be framed under the revision of the Textiles Labelling Regulation. We strongly call on the JRC and on the European Commission not to set requirements for maintenance as it is regulated under TLR. Legislative coherence should be bidirectional, ensuring coherence with the scope of the two pieces of legislation, notably in the context of the setting of requirements under the ESPR but also on the revision of the TLR, that needs to align with the objective and scope of the ESPR. Maintenance information requirements under the ESPR should, therefore, complement existing efforts, utilizing digital tools like the DPP to provide supplemental and targeted guidance without duplicating regulatory obligations. For instance, captions or further explanations, where relevant and duly justified, are best suited for digital formats, which offer flexibility without compromising consumer accessibility.
1019	9.2.2 Maintenance; 3,012 ff	From our perspective, maintenance requirements should be regulated within the Textile Labelling Regulation. This regulation should not only specify the fibre types and their proportions, but also how the textile product is to be washed, cleaned etc. But if the Textile Labelling Regulation will not include maintenance requirements then we propose to include these requirements “here” because the right care of a textile product is an important aspect for the long usability of a textile product.
1030	9.2.2; 3019-3022	It is important to detail the garment's maintenance to ensure better durability of the product and highlight key points of care to preserve more delicate items.
1033	1.2.2.1; Table 7	Best practices on care labelling/ line "comprehensive coverage": care instructions should also take into account any additional sensitive artwork on the product (all over print, placed print, embroidery, patches as they can fragilize the product and modify the care instructions needed.
1036	9.2.2.1; 3026-3029	GINETEX regularly conducts IPSOS consumer surveys, which show that care symbols are well known to consumers. In addition, GINETEX's symbols are clearly defined, and this information is made available at www.ginetex.net and other national GINETEX websites. There should be no paraphrasing of the care symbols on the label, because the point of the symbols is that they can be used internationally without text and therefore do not have to be translated into many languages if a company sells internationally. Background Information: IPSOS consumer survey is carried out every 2 years, extract of results: https://www.ginetex.net/thematique/GB/europe/results-of-the-3rd-ipsos-european-barometer-2023 https://www.ginetex.net/thematique/GB/europe/results-of-the-3rd-ipsos-european-barometer-2021 https://www.ginetex.net/thematique/GB/europe/results-of-the-3rd-ipsos-european-barometer-2019
1037	9.2.2.1; 3026	While we agree that care labels can help consumers to properly take care of their textile and hold on to them for longer, it is important that the JRC also recognises that current textile labels provide inaccurate information, e.g. related to the real fibre composition of products. This negatively impacts consumers ability to choose wisely and raises questions about the accuracy of care instructions, which are key to enabling longer lifetime.
1038	9.2.2.1.; 3026-3029	GINETEX regularly conducts IPSOS consumer surveys, which show that the care symbols are well known to consumers. In addition, GINETEX's symbols are clearly defined and this information is made available at www.ginetex.net and other national GINETEX websites. There should be no paraphrasing of the care symbols on the label, because the point of the symbols is that they can be used internationally without text and therefore do not have to be translated into many languages if a company sells internationally. Background Information: IPSOS consumer survey is carried out every 2 years, extract of results:

ID	Section & line	Comment
		https://www.ginetex.net/thematique/GB/europe/results-of-the-3rd-ipsos-european-barometer-2023, https://www.ginetex.net/thematique/GB/europe/results-of-the-3rd-ipsos-european-barometer-2021, https://www.ginetex.net/thematique/GB/europe/results-of-the-3rd-ipsos-european-barometer-2019
1039	9.2.2.1; 3026-3029	GINETEX regularly conducts IPSOS consumer surveys, which show that the care symbols are well known to consumers. In addition, GINETEX's symbols are clearly defined and this information is made available at www.ginetex.net and other national GINETEX websites. There should be no paraphrasing of the care symbols on the label, because the point of the symbols is that they can be used internationally without text and therefore do not have to be translated into many languages if a company sells internationally. Background Information: IPSOS consumer survey is carried out every 2 years, extract of results: https://www.ginetex.net/thematique/GB/europe/results-of-the-3rd-ipsos-european-barometer-2023, https://www.ginetex.net/thematique/GB/europe/results-of-the-3rd-ipsos-european-barometer-2021, https://www.ginetex.net/thematique/GB/europe/results-of-the-3rd-ipsos-european-barometer-2019
1042	9.2.2.1; 3028-3029	Ongoing efforts on facilitating label understanding do not focus on combining both symbols and captions in physical labels, as the text seems to indicate, but rather on the standardization and improvement of symbols alone. It is worth noting that, historically, captions were replaced by symbols to streamline physical label design and reduce bulk.
1044	9.2.2.1; 3029, 3033, 3038, 3076	The cited source "Yan et al., 2008; Nayak and Ratnapandian, 2018" deals with the US care labeling system. The US has its own care labeling system that differs from the GINETEX care labeling system that is common and, in some countries, mandatory in Europe. Therefore, all comments here should be viewed very critically or are not applicable to the European situation.
1045	9.2.2.1.; 3029, 3033, 3038, 3076	The cited source "Yan et al., 2008; Nayak and Ratnapandian, 2018" deals with the US care labeling system. The USA have its own care labeling system that differs from the GINETEX care labeling system that is common and in some countries mandatory in Europe. Therefore, all comments here should be viewed very critically or are not applicable to the European situation.
1046	9.2.2.1; 3029, 3033, 3038, 3076	The cited source "Yan et al., 2008; Nayak and Ratnapandian, 2018" deals with the US care labeling system. The USA have its own care labeling system that differs from the GINETEX care labeling system that is common and in some countries mandatory in Europe. Therefore, all comments here should be viewed very critically or are not applicable to the European situation.
1048	9.2.2.1; 3031 Figure 22	The example of a care label does not apply to Europe. The US care symbols are shown and the material name "Spandex" is not permitted to use in Europe.
1050	9.2.2.1; 3031	Figure 22: The figure shown is based on a care label regulated under New Zealand's labelling standards. Considering that these regulations date back to 1998, their suitability as a reference for current best practices is questionable, given the changes in practices and techniques since then.
1051	9.2.2.1.; 3031	The example of a care label does not apply to Europe. The US care symbols are shown and the material name "Spandex" is not permitted to use in Europe.
1052	9.2.2.1; 3031	The example of a care label does not apply to Europe. The US care symbols are shown and the material name "Spandex" is not permitted to use in Europe.
1055	9.2.2.1; 3034-3036	The terms "washing" and "cleaning" should be clearly separated. In this context, washing means washing in a domestic washing machine, defined by the washtub symbol, and cleaning means professional textile cleaning/dry cleaning/wet cleaning, defined by the circle symbol.
1056	9.2.2.1.; 3034-3036	The terms "washing" and "cleaning" should be clearly separated. In this context, washing means washing in a domestic washing machine, defined by the washtub symbol, and cleaning means professional textile cleaning/dry cleaning/wet cleaning, defined by the circle symbol.
1058	9.2.2.1; 3035	The terms "washing" and "cleaning" should be clearly separated. In this context, washing means washing in a domestic washing machine, defined by the washtub symbol, and cleaning means professional textile cleaning/dry cleaning/wet cleaning, defined by the circle symbol.
1059	9.2.2.1; 3037	We ask the JRC to also consider the downsides of digital labelling, especially for care instructions. While digital labelling brings added value through complementary information, it should not replace physical labels. Consumers should be able to easily access essential information (e.g. composition, maintenance,

ID	Section & line	Comment
		durability, origin,...) to make informed choices and take good care of their clothes: - Accessibility of essential information physically ensures a high level of consumer protection (European Court of Justice, 2020). - Digital labelling does not allow simple comparison between products. It is unrealistic expecting consumers to consult QR codes when they take purchase decisions in a few seconds, or when washing and ironing their clothes. - Challenges for data protection and targeted advertising if need for constant access to brands' websites. - Digital information is intangible and can complicate investigations of non-compliance by authorities. - 70% of Europeans follow labels' care instructions. 80% would not (or would rarely) buy clothes without any labels (Ginetex).
1060	9.2.2.1; 3039	In the user behaviour and lifecycle stages, it is indicated that users are more likely to follow instructions on the care label if they handle a relatively expensive product, rather than if they handle a relatively cheap one. Data from the collection of end-of-life waterproof jackets at Mid Sweden Univeristy indicates that this is not the case for the collected garments for testing. In addition, there appears to be no reference to the treatment of textiles with specific processes, e.g. re-impregnation of waterproof garments to rejuvenate and replace the DWR treatment. This is of particular importance where technical function is being measured e.g. Bundesmann or Spray test, as the correct maintenance procedure will have a strong influence on the behaviour of the textiles during testing, and needs to be considered when addressing issues relating to care labels.
1061	9.2.2.1; 3041-3044	The GINETEX IPSOS consumer survey provides detailed information on consumer behavior. It is not correct that consumers have difficulty interpreting care labels. Nor can one simply say that care labels are always removed and that this is promoted by companies. Why was GINETEX not quoted and contacted here, but a US study used?
1062	9.2.2.1.; 3041-3044	The GINETEX IPSOS consumer survey provides detailed information on consumer behavior. It is not correct that consumers have difficulty interpreting care labels. Nor can one simply say that care labels are always removed and that this is promoted by companies. Why was GINETEX not quoted and contacted here, but a US study used?
1063	9.2.2.1; 3041-3044	The GINETEX IPSOS consumer survey provides detailed information on consumer behavior. It is not correct that consumers have difficulty interpreting care labels. Nor can one simply say that care labels are always removed and that this is promoted by companies. Why was GINETEX not quoted and contacted here, but a US study used?
1065	9.2.2.1; 3045-3047	This statement is confusing and contradicts other parts of the report which state: "No research was found analysing the potential relation between the price of products and their intrinsic durability properties."

ID	Section & line	Comment
		"Price is another important aspect that users consider when purchasing textile apparel, but generally, they do not regard it as an indicator of quality and therefore do not consider it to indicate physical durability." If customers don't associate quality with price, it's hard to assume they link price with product care. The report should be based on scientific and validated assumptions, using a comprehensive approach rather than compiling isolated findings from references that contradict each other.
1067	9.2.2.1; 3045-3047	User behaviour: This statement is confusing and contradicts other parts of the report which state: "No research was found analysing the potential relation between the price of products and their intrinsic durability properties." "Price is another important aspect that users consider when purchasing textile apparel, but generally, they do not regard it as an indicator of quality and therefore do not consider it to indicate physical durability." If customers don't associate quality with price, it's hard to assume they link price with product care. The report should be based on scientific and validated assumptions, using a comprehensive approach rather than compiling isolated findings from references that contradict each other.
1070	9.2.2.1; 3053	This is not sustainable. Fully loaded normal wash cycles are always more economical and sustainable if the care label allows it.
1071	9.2.2.1.; 3053	This is not sustainable. Fully loaded normal wash cycles are always more economical and sustainable if the care label allows it.
1072	9.2.2.1; 3053	This is not sustainable. Fully loaded normal wash cycles are always more economical and sustainable if the care label allows it.
1074	9.2.2.1; 3055	Preferring air-drying to tumble drying is correct. But you can't just say generally "out of direct sunlight". That depends on the textiles and the care label.
1075	9.2.2.1.; 3055	Preferring air-drying to tumble drying is correct. But you can't just say generally "out of direct sunlight". That depends on the textiles and the care label.
1076	9.2.2.1; 3055	Preferring air-drying to tumble drying is correct. But you can't just say generally "out of direct sunlight". That depends on the textiles and the care label.
1078	9.2.2.1; 3058	"Storing in cool and dry places". That recommendation does not make sense for textiles.
1079	9.2.2.1.; 3058	"Storing in cool and dry places". That recommendation does not make sense for textiles.
1080	9.2.2.1; 3058	"Storing in cool and dry places". That recommendation does not make sense for textiles.
1082	9.2.2.1; 3059	Please note the General Product Safety Regulation (Regulation (EU) 2023/988) which now makes labelling mandatory in the EU as well.
1083	9.2.2.1; 3059-3065	TLR to cover mandatory care instructions. Mandatory care instructions on inner physical labels, in the form of symbols, should be covered in TLR. We do not agree on having care instructions mandatory in both in text and symbols on inner physical labels. Text needs translations which will lead to longer care labels, so text should be voluntary if so. The care symbols provided by many brands on textile labels have been a clear way to transmit care information to consumers. Maintenance information requirements under the ESPR should, therefore, complement the existing efforts of the inner physical labels regulated under TLR, utilising digital tools like the DPP to provide supplementary and targeted guidance without duplicating regulatory obligations. For instance, captions or further explanations, where relevant and duly justified, are best suited for digital formats, which offer flexibility without compromising consumer accessibility.
1084	9.2.2; 3059-3065	• Mandatory care instructions should be covered in the Textile Labelling Regulation revision, and should not in addition be regulated under ESPR. This would create double regulation.

ID	Section & line	Comment
		• We do not agree on having care instructions mandatory in both in text and symbols. Text needs translations which will lead to longer care labels, so text should be voluntary if so.
1087	9.2.2.1; 3060	Indeed, an EU law is not currently mandatory, but every French marketers must contribute to COFREET (French Committee for Textile Care Labeling) who applies to the GINETEX standards.
1088	9.2.2.1; 3064-3065	Not 9 but 12 member countries require mandatory care labels: Austria, Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Finland, Hungary, Lithuania, Poland, Romania, Slovakia, as well as, in the EEA, Norway. The source from 2017 is outdated.
1089	9.2.2.1.; 3064-3065	Not 9 but 12 member countries require mandatory care labels: Austria, Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Finland, Hungary, Lithuania, Poland, Romania, Slovakia, as well as, in the EEA, Norway. The source from 2017 is outdated.
1090	9.2.2.1; 3064-3065	Not 9 but 12 member countries require mandatory care labels: Austria, Bulgaria, Croatia, Cyprus, Czech Republic, Estonia, Finland, Hungary, Lithuania, Poland, Romania, Slovakia, as well as, in the EEA, Norway. The source from 2017 is outdated.
1092	9.2.2.1; 3070 Figure 23	The map is not the current version from 2023, it is not up-to-date.
1093	9.2.2.1.; 3070	The map is not the current version from 2023, not up-to-date.
1094	9.2.2.1; 3070	The map is not the current version from 2023, not up-to-date.
1096	9.2.2.1; 3075 Table 46	Companies should not be required to specify the font size. It is in the companies' own interest that consumers can read the care instructions.
1098	9.2.2.1; 3075	Table 46 – Focus on sensitive/delicate parts. We welcome the inclusion of the following best practices in Table 46: consistent label placement for consumer ease, material-based instructions and pre-sale label verification to ensure compliance. Regarding products that consist of multiple materials or components, care instructions should focus on the most sensitive or delicate parts rather than providing part-based instructions for every material. Focusing on the most sensitive parts helps to streamline the labelling process while ensuring that the primary care needs of the product are addressed. This approach avoids the unnecessary complexity that could arise from giving detailed instructions for each individual component. An apparel item is a single piece that cannot be taken apart for individual care. This must also be aligned with current approach taken under ISO standard for care labelling.
1099	9.2.2.1.; 3075	Companies should not be required to specify the font size. It is in the companies' own interest that consumers can read the care instructions.
1100	9.2.2; 3075	• We do not agree to require information on legibility or label durability as this will be covered in Textile Labelling Regulation for the label as whole.
1101	9.2.2.1; 3075	Companies should not be required to specify the font size. It is in the companies' own interest that consumers can read the care instructions.
1104	9.2.2.1; 3078-3082	The paragraph in question makes value judgments about business behaviour without providing evidence or explanation ("businesses might tend to invest little attention on communicating care instructions"). It lacks analytical insight and should therefore be omitted. The purpose of the preliminary study is to lay a solid and scientific foundation for future legal ecodesign requirements, rather than to make assumptions.
1106	9.2.2.1; 3078-3082	The paragraph in question makes value judgments about business behaviour without providing evidence or explanation ("businesses might tend to invest little attention on communicating care instructions"). It lacks analytical insight and should therefore be omitted.
1108	9.2.2.1; 3080-3082	An internal survey generated by the German Fashion Association amongst their members in 2025, which can be shared upon request, showed that it is a very common practise to provide information beyond the information within the care label to promote longevity, e.g. through hang tags, website.
1109	9.2.2.1.; 3080 ff	A internal survey generated by the German Fashion Association (German Fashion) amongst their members in 2025 showed that it is a very common practise to provide information beyond the information within the care label to promote longevity, e.g. through hang tags, website.
1110	9.2.2.1; 3080 ff	A survey generated by the German Fashion Association amongst their members in 2025 showed that it is a very common practice to provide information beyond the care label to promote longevity, e.g. through hang tags, website
1116	9.2.2.2; 3084-3115	Indicating the amount of detergent is not necessary as modern washing machines can do it automatically.
1118	9.2.2.2; 3086-3094	The indicated maintenance information should be re-assessed regarding storing wearing.

ID	Section & line	Comment
1119	9.2.2.2; 3086	The bleaching and the professional cleaning are missing. They are required by GINETEX and it concerns some product categories (example : medical professional garment, jackets, etc).
1121	9.2.2.2; 3090	The analysis does not offer the scientific evidence demonstrating a causal link between storage instructions and increased product durability, which raises questions about the validity of including this information. Furthermore, storage advice is of limited practical use given that storage options are highly dependent on individual consumer circumstances, such as available space and living conditions. Even if some consumers could find this information helpful for specific types of apparel, it may not be feasible for many to implement due to practical constraints.
1123	9.2.2.2; 3091	Wearing instructions are unlikely to significantly influence maintenance practices, as consumers determine how garments are used based on personal preferences. While such information could be potentially relevant for specific technical items, such as apparel designed for adverse weather conditions, the report does not provide evidence to support a causal link between wearing instructions and product durability. If these requirements were to be applied, they should be limited to cases where there is clear evidence of a demonstrated benefit to their inclusion, rather than being implemented systematically.
1125	9.2.2.1; 3095-3099	We do not agree to add directions of type and dose of detergent in the care instruction. Dosage information for household detergents is already regulated under Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents, Annex VII B. Detergent type is a customer choice, based on information provided by detergents manufacturer.
1126	9.2.2; 3095-3099	• We do not agree to add directions of type and dose of detergent in the care instruction. Dosage information for household detergents is already regulated under Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents, Annex VII B. Detergent type is a customer choice, based on information provided by detergents manufacturer.
1130	9.2.2.2; 3100	For drying, please refer the COFREET logos, which present every drying possibilities.
1131	9.2.2.2; 3104	We not agree with this aspect. It only depends on the user behaviour, the storing capacity, etc. We think you go too far.
1132	9.2.2.2; 3108	Be careful, the mention "resistant to humid environment and rain" is a claim which requires testing proof in order to communicate
1133	9.2.2.2; 3109	The Clevercare website (https://clevercare.info/fr/) and the mobile app give advices to consumer to improve the lifespan based on maintenance.
1134	9.2.2.2; 3111-3117	Maintenance requirements should complement existing regulations, using the DPP for targeted guidance without redundancy. Digital formats offer flexibility for additional details, avoiding oversized physical labels that may reduce comfort or be removed.
1135	9.2.2.2; 3111-3117	Maintenance information requirements under the ESPR should, therefore, complement existing efforts, utilizing digital tools like the DPP to provide supplemental and targeted guidance without duplicating regulatory obligations. For instance, captions or further explanations, where relevant and duly justified, are best suited for digital formats, which offer flexibility without compromising consumer accessibility. Adding extensive details to physical labels risks increasing their size, reducing wearer comfort, and potentially leading to labels being removed entirely.
1136	9.2.2.2; 3111-3117	Care information in the inner physical labels will be governed by the Textile Labelling Regulation (TLR), which is currently under review, aligning with practices in other markets outside the EU. The TLR revision must be duly reflected and aligned with in this legislation.
1137	9.2.2.2; 3111-3117	TLR to cover mandatory care instructions. Care information in the inner physical labels will be governed by the Textile Labelling Regulation (TLR), which is currently under review. This aligns with practices in other markets outside the EU. Maintenance information requirements under the ESPR should, therefore, complement existing efforts of the inner physical labels regulated under the TLR, utilizing digital tools like the DPP to provide supplemental and targeted guidance without duplicating regulatory obligations. For instance, captions or further explanations, where relevant and duly justified, are best suited for digital formats, which offer flexibility without compromising consumer accessibility.

ID	Section & line	Comment
1138	9.2.2.1; 3111	Please add adequate considerations related to the downsides of digital labels to provide essential information to consumers, including care instructions. While digital labelling brings added value through complementary information, it should not replace physical labels. Consumers should be able to easily access essential information (e.g. composition, maintenance, durability, origin,...) to make informed choices and take good care of their clothes. It is unrealistic expecting consumers to consult QR codes when they take purchase decisions in a few seconds, or when washing and ironing their clothes.
1144	9.2.2.2; 3120-3121	This assumption is flawed as real-world user behaviour often deviates from ideal scenarios, adding unpredictability. Integrating user behaviour into measurement models is challenging due to its resistance to precise measurement or standardization.
1147	1.2.2.2.3; NA	In this set of instructions, some topics seems little relevant for everyday used products. Could we avoid this "burden" the instructions about storing and wearing and limit their use to specific products as fragile products and fur, etc.?
1148	9.2.2.3; Table 47 Line 3124	The assumption that more care information enhances garment durability lacks evidence. Proof is needed that detailed instructions improve consumer understanding and maintenance. Apparel already complies with extensive TLR information requirements, especially with the new revision.
1149	9.2.2.3; 3124 Table 47	The assessment of technologies appears to assume that increasing the amount of care information — from symbols alone (baseline) to captions (BAT) and eventually detailed explanations (BNAT) — automatically improves garment maintenance and durability. To justify this approach, there must be clear, evidence-based proof that more detailed instructions result in better consumer understanding, improved maintenance practices, and measurable gains in product durability.
1151	9.2.2.3; 3124	Table 47: The assessment of technologies appears to assume that increasing the amount of care information — from symbols alone (baseline) to captions (BAT) and eventually detailed explanations (BNAT) — automatically improves garment maintenance and durability. To justify this approach, there must be clear, evidence-based proof that more detailed instructions result in better consumer understanding, improved maintenance practices, and measurable gains in product durability.
1152	9.2.2.3; 3124	Table 47 – Cleaning, drying, ironing: Without solid evidence linking captions and detailed care instructions to improved maintenance and product durability, it remains uncertain whether such requirements would provide substantial value. Should these be implemented based on existing evidence, captions or explanations are better suited for digital formats. Adding extensive details to physical labels risks increasing their size, reducing wearer comfort, and potentially leading to labels being removed entirely.
1153	9.2.2.3; 3124	Table 47 – Storage: The report does not justify whether there is scientific evidence demonstrating a causal link between storage instructions and increased product durability, which raises questions about the validity of including this information. Furthermore, storage advice is of limited practical use given that storage options are highly dependent on individual consumer circumstances, such as available space and living conditions. Even if some consumers could find this information helpful for specific types of apparel, it may not be feasible for many to implement due to practical constraints.
1154	9.2.2.3; 3124	Table 47 – Wearing: Wearing instructions are unlikely to significantly influence maintenance practices, as consumers determine how garments are used based on personal preferences. While such information could be potentially relevant for specific technical items, such as apparel designed for adverse weather conditions, the report does not provide evidence to support a causal link between wearing instructions and product durability. If these requirements were to be applied, they should be limited to cases where there is clear evidence of a demonstrated benefit to their inclusion, rather than being implemented systematically.
1158	9.2.2.3; 3124	We agree with the categorization (BC, BAT, BNAT).
1159	9.2.2; 3124, table 47	This must be aligned with the textile labelling revision. Relevant aspects are: BC:

ID	Section & line	Comment
		Using harmonised and mandatory wash and care symbols (ISO 3758), with/or harmonised written instructions on a physical label. BAT: Provide additional instructions for the correct care or storing of the product (dirtiness, pests, folded/hangered, wash all parts same time etc.).

Annex 15. Comments on repairability

Table 38. Comments on repairability

ID	Section & line	Comment
1167	9.2.3; NA	Repair-related information should be covered by information requirements, and textiles should be in the scope of the Right to Repair Directive.
1168	9.2.3; NA	The JRC must acknowledge that apparel textiles are for the most part repairable, with the exception of apparel that contains electronics or integrated elastane. The idea being put forward in this study us that repairable is something apparel should become. However, there is no data to support this assumption.
1169	9.2.3.2; 3128-3240	We oppose implementing a performance requirement for reparability and instead recommend providing consumers with information about product repair options. Unlike e.g. electronics, textile repair is less technical, with spare parts being more readily available and standardized. If an information requirement on reparability is introduced, it should only occur when spare parts and services are accessible. However, we caution against a performance requirement, as this could lead to significant overproduction of spare parts. By using standard spare parts, consumers must adapt to possible variations in colour shades and expressions.
1170	9.2.3 Repairability; 3128 - 3241	We understand the importance of reparability in achieving the objectives of the ESPR legal framework. However, it is important to underline that the issue of repairability for textiles differs from other product categories. Moreover, another important aspect to consider is the accessibility of repair services and required tools. On this note, we oppose the introduction of a performance requirement on reparability and instead focus on offering information to consumers about the possibility of repairing products. The aim of information requirement on reparability is to ensure that the consumer is informed about the services a company, or partners provide to facilitate the repairs. Repair information requirements should only be provided digitally and should be allowed to be provided in a generic manner. For example, the use of general instructions to sew on a button rather than specific instructions for each individual button used. This would ensure consumer information and education and not require manufacturers to redesign repair information for each individual new style.

ID	Section & line	Comment
		Disassembly complexity Repairing a garment in practice is unlikely to require a full disassembly. The suggested measures to ease disassembly furthermore have a high impact on durability, potentially impacting the fitness for use of garments and safety features. Certain more durable seams are used to provide more durable products as well as achieve certain functionality. The suggested approach to seams would highly impact tight fitting clothing and may cause certain functional sports garments to snap when utilized for intended use, or not provide protection from weather conditions such as rain or wind. We therefore do not support this category as it would not lead to sustainability gains in real life conditions and negatively impact the integrity of sports clothing. Tool accessibility The study suggests as BAT regarding tool accessibility across garments that the repair operation only requires basic tools (thread, scissors, needle). This is a very theoretical approach to garment design and repair that would be impossible to implement in practice. The industry believes it is impossible to design a garment that can at all times be repaired to its original functional and aesthetic state with only these tools across all potential repair needs. Moreover, mandating that the repair process can be implemented through basic tools, does not ensure its successful repair, as it is always recommended to contact a professional repairer for the best outcome. Standard Fasteners The use of standardized fasteners should not impede the innovation and creativity of the sector. Within this context, standard fastener sizing numbers could be useful to be provided for consumers via a product's DPP. If a consumer chooses to repair a fastener, they would be able to review the size if replacement fastener needed. Repair Sector The study concludes with a general decline of the size of the textile repair sector. We recommend for the JRC to also include in the report the increasing start up landscape of repair providers in Europe which offer integrated repair solutions for apparel companies.
1171	9.2.3; 3128	Repair-related information should be covered by information requirements, and textiles should be in the scope of the Right to Repair Directive.
1172	9.2.3; 3128	The JRC must acknowledge that apparel textiles are for the most part repairable, with the exception of apparel that contains electronics or integrated elastane. The idea being put forward in this study us that repairable is something apparel should become. However, there is no data to support this assumption.
1173	9.2.3; 3128	Calling for repairability as an information requirement to inform consumers on repair costs, time, spare parts availability, and repair documentation to promote circular economy, extend product life, and reduce waste.

ID	Section & line	Comment
		Enhancing repair through diverse measures and tools focusing on infrastructure development, education and further subsidies such as the repair funds. The EPR schemes for textiles set under the WFD could be one of the key structures to support the growth of the repair economy.
1174	9.2.3; 3128	Considering trade-offs is critical. As the report correctly identifies, today, most consumers do not have the skill or tools to perform repairs themselves. Designing for repairability can reduce the time needed to perform a repair, but it will have inevitable trade-offs with durability or the creative freedom of the designers. Considering trade-offs when setting eco-design measures is extremely critical. Reparability as an information requirement could increase consumer awareness on existing reparability services. Reparability is already covered by other legal initiatives (see comments below). However, consumers have an active role to play. To ensure the use of these services, regulators need to complement the eco-design information requirements with economic incentives to promote the repair of apparel products, e.g. avenues making it considerably cheaper for consumers to repair like by eliminating VAT or making repairs deductible. While such policy considerations are outside the scope of the ESPR and product design specifically, they are equally important to ensure the effectiveness of information requirements on reparability.
1175	9..2.3; Full section	As the report correctly identifies, today, most consumers do not have the skill or tools to perform repairs themselves. However, designing for repairability/setting eco-design measure for repairability, does not guarantee that consumers will actually repair/deliver the product for repair. Ultimately, realising repair and uptake of repair, is about reducing effort and cost on part of the consumer. Therefore, avenues making it considerably cheaper for consumers to repair like by eliminating VAT or making repairs deductible, is likely to be more effective for enabling repair. However, such policy considerations are outside the scope of the ESPR and product design specifically. We propose a move towards enhancing repair services instead of imposing strict repairability requirements, as these could incentivize consumers to actually repair the products. An important element to keep in mind: it is criterial to take into account the social aspects of repaired products. Patched and mended products are not acceptable in a lot of contexts and also a symbol of poverty outside of niche sub-cultures. Therefore, in terms of ensuring that the upcoming eco-design measures have be most impact, it is probably better to invest in durable goods instead of repairable products when it comes to apparel products, especially in the mid and low market segments.
1176	9.2.3; 3128 to 3240	Repairability: As stated by many participants during the stakeholder workshop in December 2024, the relevance of this parameter for textiles must be doubted. Given the complexity of the textile value chain, and the high numbers of collections, it does not seem realistic to keep standardised 'spare parts' on hand, nor is there any significant textile repair sector. As with circularity and recycling, the same applies here: If there is an overproduction of textiles, and if any repair is more expensive than the new garment, there is no incentive to repair unless there is a particularly strong emotional attachment to the product.
1177	9.2.3; Table 48	Additionally, repairing a garment in practice is unlikely to require a full disassembly. The suggested measures to ease disassembly furthermore have a high impact on durability, potentially impacting the fitness for use of garments and safety features. Certain more durable seams are used to provide more durable products as well as achieve certain functionality. The suggested approach to seams would highly impact tight fitting clothing and may cause certain functional sports garments to snap when utilized for intended use, or not provide protection from weather conditions such as rain or wind. We therefore do not support this category as it would not lead to sustainability gains in real life conditions and negatively impact the integrity of sports clothing.
1178	9.2.3; Table 48	Responsibility must be clarified for product safety and product guarantee reasons.
1179	9.2.3; Table 48	The study suggests as BAT regarding tool accessibility across garments that the repair operation only requires basic tools (thread, scissors, needle). This is a very theoretical approach to garment design and repair that would be impossible to implement in practice. The industry believes

ID	Section & line	Comment
		it is impossible to design a garment that can at all times be repaired to its original functional and aesthetic state with only these tools across all potential repair needs. Moreover, mandating that the repair process can be implemented through basic tools, does not ensure its successful repair, as it is always recommended to contact a professional repairer for the best outcome
1180	9.2.3; Table 48	The use of standardized fasteners should not impede the innovation and creativity of the sector. Within this context, standard fastener sizing numbers could be useful to be provided for consumers via a product's DPP. If a consumer chooses to repair a fastener, they would be able to review the size if replacement fastener needed.
1181	9.2.3; 3128- 3240	We understand the importance of reparability in achieving the objectives of the ESPR legal framework. However, it is important to underline that the issue of repairability for textiles differs from other product categories, such as electronics, as clothing repair is not as technical and complex, and the availability of spare parts is more widespread and standardised in the textile sector. On this note, we oppose the introduction of a performance requirement on reparability, and focus on offering information to consumers about the possibility of repairing products, making sure the consumer is aware of the services a company or partners provide to facilitate the repairs. However, further discussions are needed on the scope of the information requirement and on the type of information requested. More specifically, we would support including reparability as an information requirement to be included within the Digital Product Passport for those cases where reparability services are offered, incentivising brands to design products with repair potential while offering consumers valuable information to guide their purchasing decisions. We believe that product specific repair information is not scalable or delivers the envisioned impact.
1193	9.2.3; 3129	The report is unclear/ inconclusive regarding certain elements, e.g. reference to good practices that at the same time are highlighted as undesirable. For example, modularity is considered good for the repairability of garments but less for comfort. Another example is the price of the repair, it is inconclusive when it comes to its link to the price of the garment where attachment and changes over time play a role.
1194	9.2.3; 3129-3240	- Recycling should not always be viewed as a secondary option, particularly if aesthetic concerns dictate the production and design of recycled articles. - The ESPR defines repairability as the ability to restore a product to its intended use. However, for textiles, the report introduces a subjective element: "this return to the intended use includes the acceptance by the user." This interpretation could shift the focus of garment repair from functionality to aesthetics. - Aesthetic preferences are subjective and cannot be regulated from a design or manufacturing perspective. Additionally, restoring a textile product's original appearance is not always feasible. Ecodesign requirements should focus on objective criteria that provide legal certainty for producers, rather than unpredictable consumer tastes. - We oppose the introduction of a performance requirement on reparability and recommend focusing on offering information to consumers about how to repair products. Repairability for textiles differs from other product categories, such as electronics, as the clothing repair is not as technical and complex, and the availability of spare parts is more widespread and standardized

ID	Section & line	Comment
		- Only introduce an information requirement on reparability only if spare parts and services are available, but do not introduce a performance requirement on spare parts as this will most likely lead to overproduction
1195	9.2.3; 3129	We need to shift from esthetical considerations, as they cannot be evaluated in an objective and consistent manner. Adding the esthetical criteria would lead to difficulties in validating the repairability of the textiles. It will not be possible to flag a product as "repairable" as it will depend on the client's acceptance of the repair solution proposed in terms of aesthetics. However, an exemption can be made in case there is an invisible repair process, which will be very expensive and will increase the cost of repairs. If the repairs can't guarantee this, then the products won't be "repairable".
1198	9.2.3; 3130-3137	"Satisfied with the potential new aesthetics". According to the ESPR, repairability is defined as the ability of a defective product or waste to return to a condition where it fulfils a product to its intended use. However, the report incorporates a subjective element for textiles: "the potential new aesthetics of the product after repair operations". However, repair of garments should focus on restoring functionality rather than aesthetics. Further still, aesthetics is subjective and vary according to individual consumer preferences, which cannot be evaluated in an objective and consistent manner, nor regulated from a design and manufacturing perspective. Additionally, due to the nature of textile products, restoring the initial aesthetics of the product cannot be guaranteed. Adding this criterion will lead to difficulties in validating the reparability of textiles. Ecodesign requirements should rely instead on feasible solutions that provide legal certainty for producers, without depending on future consumer tastes beyond the control of producers, and thus pivot towards objective elements. Moreover, this subjective component is not, in fact, taken into account in consumption regulations (i.e. Directive 2019/771 on the sale of goods) when it provides for the possibility for consumers to request the repair of non-conforming products (subject to the terms provided therein). Ultimately, precisely because aesthetics is subjective and vary according to individual consumer preferences, imposing repairability requirements (or, ultimately, repair obligations) would not necessarily serve the intended purposes, since its effectiveness would depend largely on consumers behaviour or preferences. In other words, establishing repairability requirements would not guarantee that products are repaired (because whether they are finally repaired does not depend on the producers), but only that they are potentially repaired.
1199	9.2.3; 3134- 3183	Having repair requirements is not securing its repair, as the practice is contextual and it largely depends on the consumer willingness.
1200	9.2.3; 3134- 3183	Even though out of the scope of the ESPR, additional subsidies or incentives to support circular business models, considering pre-owned, repair and rental, should be more widely considered in the context of other legislative instruments, as these models remain largely unprofitable.
1201	9.2.3; 3134- 3183	Customers generally are only able to do minor repairs themselves (e.g. a button), and there is a skills gap, particularly among young people, on repairing products at home. Based on this, any initiative around spare parts must be supported by community education to build skills in the population.
1202	9.2.3; 3134- 3183	We also call on the JRC to better define the link between reparability and physical durability, as potential requirements on repairability can have significant impacts on the design and durability of the product, for example, if ease of dismantling the product into pieces is required, then it may affect its durability and performance.. Additionally, scope must be clarified, including which trim categories are included.
1203	9.2.3; 3134- 3183	Additionally, points to further consider would be the following: • Limitations: insufficiency of a network of professional repair shops with sufficient solvency and technical means, lack of machinery for certain type of fabrics or advanced repair techniques, appearance and dimensions (repairing the defect may reduce or increase the size of the repaired

ID	Section & line	Comment
		parts; may cause imbalance in symmetry, loss of elasticity in stretch fabrics or technical fabrics, making it impossible to recover the original shape, etc), to remove stains or damages caused by stain removes that affect the integrity of the fabric.
1204	1.2.3.1; NA	Availability of spare parts: "retailers place on the market up to one collection per week". Could we add "some retailers" as this practice is not generalized to all market actors and shouldn't be our basis for analysis.
1205	1.2.3.1; NA	"the decision of repairing an item"... is subjective and we think it is also deeply linked with the general aspect of the item (linked with colour fading, state of artwork, material fraying...)
1206	1.2.3.1; NA	"However, self repair...suitable skills": we would like to add "and suitable tools and machines"
1207	9.2.3 Repairability;; 3,135 ff.	Section 9.2.3.1, Line 3,143 ff.: A detailed analysis of the impact of various seam constructions is lacking in the context of repairable design principles. This is particularly relevant as these constructions play a role under the key parameter of "Disassembly complexity", categorised as "Type of connectors" in Table 48. Line 3,151 ff.: Additionally, there is no clear definition or description of what is meant by modularity in textile product design. It would be beneficial to focus on aspects such as the "Type of connectors" (seam construction) and the "type of processing" (product construction). Concrete examples from different product groups would be helpful. In Table 48, modularity only plays a subordinate role under the section "Fabric Layers". Section 9.2.3.2, Line 3,226 ff.: We agree with the selection of key parameters and can confirm them based on our own study. In Table 48, while we consider the "Type of connectors" and “Access Points” to be relevant, we believe that assessing the number of “Fabric Layers” is not strictly necessary. In this context, the "Type of connectors" or type of processing is more significant. The Preparatory Study itself highlights the challenges of repairing multi-layered textile garments based on how these layers are interconnected (e.g., fused or bonded). Section 9.2.3.3, Line 3,236 ff.; Table 49: In relation to the key parameter "Disassembly complexity", the level of detail from Table 48 is insufficiently considered. For example, the ap-proach of using seams of varying complexity is no longer taken into account. The complexity is mainly assessed based on the number of product parts. This does not take into account that the "Type of connectors" and type of processing ultimately determine the complexity and cost of the repair. For instance, if a zipper in a pair of jeans needs to be repaired, the manner in which it is integrated with other components, such as the waistband or pockets, significantly affects the ease of replacement. Here, the processing can vary even with the same number of product parts and make the repair considerably more difficult. Line 3,232 (Table 48) and line 3,239 (Table 49): Which of the two tables, Table 48 and Table 49, is the final basis for the assessment of reparability? How should the assessment be carried out, particularly with regard to the key parameter “Disassembly complexity”?
1210	9.2.3.1; 3165	We disagree with the suggested approach to consider the availability of spare parts in the textile apparel industry in light of the high number of different collections that are currently placed on the market by brands. Ecodesign measures should be developed with the objective of slowing down production volumes and reduce the negative impacts of textiles. As correctly identified in other sections of the study, fast fashion and overproduction are key contributes to the negative environmental impact of textiles. The objective of the ESPR is to make sustainable products the norm, which entails products of higher quality, that last longer and are repairable. Measures facilitating spare parts availability should be developed in this context and follow the approach taken for other product groups, such as smartphones and tablets. Design requirements should facilitate disassembly (e.g. removable buttons and zips) while ensuring durability. In complement, companies should offer repair services, tutorials,

ID	Section & line	Comment
		and use standard components for those parts that are prone to breaks or make special spare parts (e.g. buttons, thread and zips) available on demand.
1214	9.2.3.1 9.2.3.2; 3184 – 3207 3224 – 3231	"The decision of repairing an item of textile apparel is highly subjective and depends on individual values, fashion trends, price, skills and time available to users." "However, self-repair is a viable option only if the user has suitable skills and available time." "…repairability can be assessed via more product-related properties identifying the product parts and describing the level of four key parameters: (1) disassembly complexity, tool accessibility, use of standard fasteners, and (4) repair support resources" Summing up: The economic aspect of price or perceived value of product when acquired, is not considered. So, the decision is rational, clothes that are expensive or you love you repair, either yourself or by others. Studies on repair are unequivocal. We need to increase the value of clothes and the easiest way to do that is to reduce the quantity. If one does not have suitable skills, many ask a relative or someone else to help them, according to our research. We would like JRC to point to studies that actually tie the four key parameters (disassembly complexity, tool accessibility, use of standard fasteners and repair support service) to repair and even better to Duration of Service. We wonder how you know that this aspect will have an impact. Addressing the volumes is probably what will affect this issue. As this will further be studied in Task 5 and 6, ensure that studies are commissioned that actually study the correlation between the four key parameters and Duration of Service, price and marketing.
1215	9.2.3; 3184- 3207	The JRC itself acknowledges that repair decisions are subjective, driven by trends, preferences, emotional attachment, and the cost of new items (versus the cost of repairs) — factors that are difficult to influence. When referring to emotional attachment, there are several references in the report that state that this is largely influenced by the price of the product. Fashion, irrespective of being expensive or inexpensive, holds the potential to evoke personal significance and reflect individual identity. The assertion that the price of a product correlates with emotional attachment overlooks the complexity of consumer relationships with textile apparel. A potential penalisation to operators for not offering repair services, despite the lack of evidence linking availability to increased repairs, risks imposing unnecessary burdens without addressing the real behavioural drivers behind consumer repair decisions.
1218	9.2.3.1; 3187-3189	Textiles, irrespective of being expensive or inexpensive, holds the potential to evoke personal significance and reflect individual identity. The assertion that the price of a product correlates with emotional attachment overlooks the complexity of consumer relationships with textile apparel.
1219	9.2.3.1; 3187-3196	These explanations about the price of the repair appears to be not entirely relevant as the following paragraph mentions that self-repair is the most common practice.
1222	9.2.3 Repairability; 3190	Reparability requirements should build on the technical approach of A&F PEFCR, where indeed the price of repair compared to the price of the new item is taken into account as a main driver for effective reparability, through the ratio between repair cost vs product cost.
1224	9.2.3.1; Page 119-120, line 3208	https://www2.mst.dk/Udgiv/publikationer/2023/02/Automatisering-af-reklamationer-p%C3%A5-t%C3%B8j-og-h%C3%A5ndtering-heraf.pdf Apologies, the linked report is only available in Danish. It reports development of a solution that make it easier for businesses and clothing manufacturers who receive complaints, to have the clothing that is being complained about repaired. The solution is based on digitization and automation of the current process for handing over/receiving clothes between clothing stores and tailors. The solution

ID	Section & line	Comment
		is supposed to solve the issue of high transaction costs for repairing faulty clothes sold by retailers. This approach could maybe be considered BNAT?
1226	9.2.3.1; 3209	Current legal framework for repair of textile apparel in EU The above assertion is not entirely accurate. In fact, attention is drawn to various regulations currently existing that impose repair obligations on producers: (i) Directive 2019/771 on the sale of goods (that it is applicable to consumer products, including textiles) ensures that consumers can request the repair of non-conforming products, including textiles, within a minimum two-year legal guarantee unless repair is impossible or disproportionate (and therefore subject to the terms provided therein). (ii) Additionally, the Empowering Consumers Directive (2024/825), also applicable in our case, enhances consumer rights by requiring information on spare parts' availability, estimated costs, repair procedures, maintenance instructions, and repair restrictions, fostering transparency and informed choices. Although we are aware that ESPR operates at different times and refers to different aspects than those provided for in the abovementioned regulations, both regulatory regimes (ESPR and consumption regulations indicated above) can be considered as complementary to the extent that they reach the lifecycle of the physical products at the level of reparability (an ultimately, repair) The result of the foregoing is (i) the disproportionate administrative and other burden that Union regulations could entail for both producers and the competent authorities from the point of view of repair of the goods (which at the same time could be an obstacle to compliance with the different obligations provided) and (ii) the risk of overlapping that different regulations could entail in some aspects and therefore the necessary regulatory coherence that must exist across different regulations with an impact on the repairability (an ultimately, repair) of the goods.
1230	9.2.3.1; 3210-3217	Part I - Reparability under ESPR DA vs Right to Repair Directive. The report seems to suggest that textile products that are eventually subject to repairability requirements under the ESPR might be subject to a repair obligation under the Right to Repair Directive (i.e. Directive (EU) 2024/1799 of 13 June 2024). Subject to the terms provided for by the legal acts that might be adopted, the most direct consequence would be that these products should potentially be repaired, free of charge or for a reasonable fee, within a reasonable period of time and outside the obligations already existing within the legal warranty period. Taking into account the various elements –some of them pointed out in the report- (e.g. presence of great subjectivity in the repair decision, lack of consideration by users of the importance of reparability in the purchase decision, different cultural perceptions or various regulations currently existing that impose repair obligations on producers, unlike other product aspects -e.g. durability or recycled content- not regulated to date), we believe that the application of obligations under such Directive and thus the definition of repair requirements is not feasible for textiles today and could impose a disproportionate burden on producers for the following reasons: • Repair depends on consumer demand. REFASHION's (i.e. French eco-organization for apparel products) implement a repair bonus for apparel products that hast not led to an increase in the number of repairs despite the significant reduction in repair costs for consumers as a result of this initiative. • Having repair requirements is not securing its repair. The “Circular textiles policy review”, which recognises that classification for reuse does not guarantee that the garment is actually reused, but only that it is potentially reusable, the reason being the subjectivity of the consumer. In particular, it establishes the following: “But a key limitation in the legal framework and the setting of EoW criteria for the reuse of textiles is that they can only determine that sorted textiles are potentially reusable. Even if an item is deemed appropriate for reuse there is no guarantee that it

ID	Section & line	Comment
		will be reused in practice as this is contextual". Another example would be the "Environment Working Papers No. 253 "Extended Producer Responsibility in the garment sector" issued by the OECD, which provides that, as regards obsolescence in the textile sector, a distinction is made between "absolute obsolescence" (when the producer is not functional), and "relative obsolescence" (when the product is still functional but the consumer discards it by other means). In this case, the producer could only be imposed obligations with respect to the first one (i.e. absolute obsolescence), because the second does not depend on him. The above is regardless of certain doubts regarding the definition of "reparability" and, by extension, of "repair" (for example, what should be the understanding of "defective product", "intended use" or "intended purpose", or the appropriateness of linking it with "waste"). • Limitations (technical, operational, even cultural or of other nature) The report does not appear to be making reference to the limitations (technical, operational, even cultural or of other nature) in the repair of products when reflecting upon the possible incorporation of requirements in this regard. It is critical to consider above-mentioned difficulties in imposing requirements relating to the repairability and subsequent repair of textiles. For example the insufficiency of a network of professional repair shops with sufficient solvency and technical means; the unavailability of specialized workshops to repair certain products (e.g. products with technical features, heat-sealed zippers, etc.), the lack of machinery or the complexity of certain products (e.g. those with many components) or fabrics (e.g. noble fabrics such as silk) can make repair difficult at a technical and operational level, so that the potential requirements in terms of repairability (and ultimately repair) would be unfeasible in some circumstances. (i) Limitations of machinery We could find sewing machines or tools not suitable for the type of fabric or for advanced repair techniques, or lack of specialized equipment, overlockers or tools for thick fabrics, since manual repair cannot match the precision of industrial machines.
1231	9.2.3.1; 3210-3217	Part II - Reparability under ESPR DA vs Right to Repair Directive. (ii) Limitations of knowledge We could find limitations related to the repairer's expertise: such expertise can be vital in the high-precision repair required by delicate garments such as lace, silk or technical fabrics or, on the contrary, incorrect handling of the fabric or machinery due to lack of experience, which can aggravate the damage that is intended to be repaired, or there may be difficulty in identifying the appropriate repair technique/material depending on the defect (e.g. elastic sewing threads, invisible stitches or 5-thread overlock). In fact, the REFASHION (i.e. French eco-organization for apparel products) "EU Manifesto For a Sustainable and Circular European Textiles and Footwear Industry" published in December 2024 (and available at REFASHION's platform) recognizes the lack of repair professionals as a concern. We can also find limitations in terms of the compatibility of materials and techniques, for example: use of incompatible materials that cause tension in the seams or long-term deterioration or new seams that do not match the existing ones in terms of stitch, style or resistance. (iii) Limitations of fabric We could find limitations related to the impact on appearance and dimensions, for example: repairing the defect may reduce or increase the size of the repaired parts; or repairing defects may cause imbalance in symmetry, especially in structured garments such as jackets or trousers, if the

ID	Section & line	Comment
		repair is not uniform, or loss of elasticity in stretch fabrics or technical fabrics, making it impossible to recover the original shape (e.g. domestic washing at high temperatures or in alkaline environments). Other limitations are related to the fabric derivatives that do not meet intrinsic quality, for example: intrinsic problem of the material or the production process and irreversible or very likely to reappear such as pilling, or repairing a contaminated thread, lint or open stitch can end up damaging the functionality of the product when trying to repair it or there may be garments that are very difficult to repair, either due to the type of defect they have, such as a tear in the fabric, or due to the design of the item. Other limitations are production process derivatives (i.e. printing, screen printing and similar), such as printing defects or defects in the placement of sequins or appliqués, both cases of impossible or very difficult repair, respectively. (iv) Limitations of stain We could find limitations related to biological substances, such as blood stains or bodily fluids that can transmit diseases (e.g. hepatitis) or mould or fungus on the fabric that can cause arthritis or very serious respiratory problems. Another limitation would be the one related with the products that can affect the integrity of fabric, for example, some stain removers are effective against specific stains, but improper use can cause discoloration, weakening of fibres or irreversible damage to fabrics. Therefore, the imposition of potential repair requirements, which can be very burdensome for retailers, must certainly take into account the impossibility or high complexity of repairing in certain cases. The above is also in line with European consumption regulations. As it is known, these regulations already provide the possibility for consumers to enjoy a choice between repair or replacement when bringing goods into conformity. In fact, enabling consumers to require repair of the goods should encourage sustainable consumption and could contribute to greater durability of products. However, the consumer's choice between repair and replacement should be limited where the option chosen would be legally or factually impossible or would impose costs on the seller that would be disproportionate, compared to the other option available. Therefore, although consumption regulations operate differently from the ESPR, they are sensitive not only to cost but also to the (im)possibility of carrying out the repair in the event of receiving a request from the customer to bring the product in conformity.
1233	9.2.3.1; 3218	The French government and the textile eco-organism Refashion have set up a "repair bonus" to identify repair services (cobblers, tailors, etc) near the consumer (geographically). This implement followed a study directed by Kantar on repairs habits of consumers.
1236	1.2.3.2; Table 9	Line "disassembly complexity", we would like to add "accessories as rivets" in the "types of connectors"
1240	9.2.3.2; 3225-3226	Factors influencing reparability. While product-related properties can be assessed through technical criteria, factors such as emotional attachment or fashion trends are subjective and not clearly defined, which is why they should not inform the development of standards. They are difficult to track and to implement, leading to insecurity for the final consumer.
1242	9.2.3.2; 3232 Table 48	Repairability should be ensured by providing necessary repair instructions to the consumer.
1243	9.2.3.2; 3232 Table 48	Although modularity, the use of standardised parts and spare parts are considered relevant in the document to ensure reparability of products, we disagree for the following reasons: 1. Modularity: The document seems to be aware of the drawbacks that modularity can produce, which we fully share. This comes when the text

ID	Section & line	Comment
		mentions that "In the context of textile apparel, modularity leads to trade-offs with comfort, because seams or components joining different parts of the textile apparel create a discontinuity in the fabric in contact with the skin which is usually perceived in terms of discomfort. Additionally, modularity leads to a trade-off with the physical durability because seams are weak parts of textile apparel" (section 9.2.3.1). Discomfort can certainly occur due to seams or removable parts at critical points of the garment, elbows, armpits or knees. However, in addition to the potential inconvenience of modular garments, modularity (which we understand as "achieving interchangeability of garment parts") could lead to shrinkage problems (which would occur if different raw materials or structures were used), colour migration or colour transfer (which could occur if the parts did not have the same tolerance-fixing dyeing process) or fuzziness or "fibre transfer" (caused by different fabric structures between modular parts), which would certainly affect the quality of the products (and, as it is known, the latter is something that is desired to be improved under the ESPR -and which again highlights the important link between both product aspects, durability and repairability). Moreover, there might be differences in durability between modular parts (i.e. durability is not the same for the crotch, elbows or cuffs as for the front or back parts that are not exposed to friction). In addition, such modularity would not be possible in some circumstances (e.g. if different raw materials or structures were used). The potential imposition of modularity requirements, in addition to creating the problems indicated above, may certainly limit the creative nature of the textile industry, something that the report also mentions. 2. Standardised parts: Although the use of standardised parts is considered relevant in the report to ensure reparability of products, the truth is that the textile industry has been using standardized parts in certain cases (depending on, for example, fabric or whether it is a "basic" or "collection" product) for a long time now. This is the case with zips, sewing thread, buttons, fasteners or even machinery. Based on the standardization of these parts, the textile industry can make certain adjustments for reasons of creative nature. That is to say, although the parts used can be standardized, these standardized parts can in turn be customized by the textile industry players (e.g. by dyeing those parts). However, if despite the fact that the textile industry already uses standardized parts, it is desired to promote the use of additional standardized parts, this could greatly impair the creative nature of the textile industry, in addition to other difficulties that could be encountered, such as limitations arising from the subjection of these elements to intellectual or industrial property rights , or collateral effects that might occur, such as the eventual emergence of interest groups. 3. Availability of tools and spare parts: Mandating the availability of spare parts may be of limited use given the low consumer demand and preferences and the remaining aspects pointed out in the report. In fact, the report states that "Making available spare parts for all these different items would imply the manufacture of product parts that most probably would never be used due to the fast-changing preferences…". The above would potentially result in surplus parts that remain unused and generation of waste, aspects already highlighted in the report. Related costs and or environmental impacts should be included in the assessment.
1245	9.2.3.2; 3232	Table 48: Although modularity, the use of standardised parts and spare parts are considered relevant in the document to ensure reparability of products, we disagree for the following reasons: (i) Modularity The document seems to be aware of the drawbacks that modularity can produce, which we fully share.

ID	Section & line	Comment
		This comes when the texts mentions that “In the context of textile apparel, modularity leads to trade-offs with comfort, because seams or components joining different parts of the textile apparel create a discontinuity in the fabric in contact with the skin which is usually perceived in terms of discomfort. Additionally, modularity leads to a trade-off with the physical durability because seams are weak parts of textile apparel” (section 9.2.3.1 of the report). That is, discomfort can certainly occur due to seams or removable parts at critical points of the garment, elbows, armpits or knees. However, in addition to the potential inconvenience of modular garments, modularity (which we understand as “achieving interchangeability of garment parts”) could lead to shrinkage problems (which would occur if different raw materials or structures were used), colour migration or colour transfer (which could occur if the parts did not have the same tolerance-fixing dyeing process) or fuzziness or “fibre transfer” (caused by different fabric structures between modular parts), which would certainly affect the quality of the products (and, as it is known, the latter is something that is desired to be improved under the ESPR -and which again highlights the important link between both product aspects, durability and repairability-). Moreover, there might be differences in durability between modular parts (i.e. durability is not the same for the crotch, elbows or cuffs as for the front or back parts that are not exposed to friction). In addition, such modularity would not be possible in some circumstances (e.g. if different raw materials or structures were used). The potential imposition of modularity requirements, in addition to creating the problems indicated above, may certainly limit the creative nature of the textile industry, something that the report also mentions. (ii) Standardised parts Although the use of standardised parts is considered relevant in the report to ensure reparability of products, the truth is that the textile industry has been using standardized parts in certain cases (depending on, for example, fabric or whether it is a “basic” or “collection” product) for a long time now. This is the case with zips, sewing thread, buttons, fasteners or even machinery. That is, based on the standardization of these parts, the textile industry can make certain adjustments for reasons of creative nature. That is to say, although the parts used can be standardized, these standardized parts can in turn be customized by the textile industry players (e.g. by dyeing those parts). However, if despite the fact that the textile industry already uses standardized parts, it is desired to promote the use of additional standardized parts, this could greatly impair the creative nature of the textile industry, in addition to other difficulties that could be encountered, such as limitations arising from the subjection of these elements to intellectual or industrial property rights , or collateral effects that might occur, such as the eventual emergence of interest groups. (iii) Availability of spare parts Mandating the availability of spare parts may be of limited use given the low consumer demand and preferences and the remaining aspects pointed out in the report. In fact, the report states that “Making available spare parts for all these different items would imply the manufacture of product parts that most probably would never be used due to the fast-changing preferences…”.

ID	Section & line	Comment
		The above would potentially result in surplus parts that remain unused, an aspect already highlighted in the report. When it comes to fasteners (e.g., spare parts) availability and compatibility as two key factors are not always interconnected. For instance, using standard fasteners does not guarantee they will be readily available. Conversely, a specific fastener might be easily accessible but could be harder to source or obtain in practice.
1246	9.2.3.2; 3232	On table 48, in the assessment, there is no factor linked to the feasibility of the repair operation itself (ie. repair feasibility on waterproof items of the textile can sometimes be too complicated to repair it), and not necessarily linked to disassembly, tool accessibility, the fasteners or the support resources.
1247	9.2.3.2; 3232	When it comes to fasteners (e.g., spare parts) availability and compatibility as two key factors are not always interconnected. For instance, using standard fasteners does not guarantee they will be readily available. Conversely, a specific fastener might be easily accessible but could be harder to source or obtain in practice.
1248	9.2.3.2; 3232	A company that promotes DIY repair solutions for textiles should be better rewarded than one that offers repair solutions in a workshop only, because this is tantamount to working on design and accessible repair solutions without significant technical know-how. Thus, it enables cheaper repairs (see prices on table page 367). In table 48, in the assessment, there is no factor linked to the feasibility of the repair operation itself (ie. repair feasibility on waterproof items of the textile can sometimes be too complicated to repair it), and not necessarily linked to disassembly, tool accessibility, the fasteners or the support resources.
1250	9.2.3; 3232, table 48	BC and BAT should take into consideration: standardized parts, especially zippers spare parts with the product (buttons, spare eyelet, piece of main fabric, repair yarn for knitwear) Instructions on company website for the repair of products, or where the product can be repaired Modularity of the product is not considered to be connected to disassembly and repair of the product. Disassembly complexity also hard to measure.
1251	Chapter 9; 3232	Can this table really be used for a assessment of a reparability requirement? This approach is still a devices approach and no textile approach. For textiles also low replacement costs is a big issue!!
1255	1.2.3.3; Table 10	Line "repair support resources": we propose to add in the column "BAT" an additional idea: develop international standard repair support guidelines with only repair process and tools sketches to avoid translation needs. A bit like usual IKEA assembly instructions
1256	9.2.3.2; Table 49 Line 3239	We have difficulty recognizing the listed technologies, both under BAT and especially under BNAT, as being available on the market (BAT) or under development (BNAT) and applicable to all types of apparel. Can JRC provide references to cases for your assessment?
1257	9.2.3.3; 3239 Table 49	In general, it is not possible to define this across all products, independently of function and use. Nor is economic efficiency considered here (cost-benefit).
1258	9.2.3.3.; 3239 ff	In general, it is not possible to define this across all products, independently of function and use. Nor is economic efficiency considered here (cost-benefit).
1259	9.2.3.3; 3239 ff	In general, it is not possible to define this across all products, independently of function and use. Nor is economic efficiency considered here (cost-benefit).

ID	Section & line	Comment
2369	10.9.5; 7913 Table 130	The range of new item prices doesn't seem to be correct.
2370	10.9.5.; 7913 ff	the range of new item prices doesn't seem to be correct
2371	10.9.5.; 7913 ff	the range of new item prices doesn't seem to be correct
2373	10.9.5; 7917 Table 131	Not representative of the EU, sources not unique and non-representative.
2374	10.9.5; 7917	Not representative of the EU, sources not unique and non-representative
2375	10.9.5.; 7917	Not representative of the EU

Annex 16. Comments on waste generation

Table 39. Comments on waste generation

ID	Section & line	Comment
1263	Waste Generation; 3241	Sources of recycled material: At present, the issue of the availability of textile material for recycling is an issue. In the assessment of recycled content, post-industrial waste needs to be included. ü According to Huygens et al. (2023) post-industrial waste accounts for 11% of the total textile waste. As of today, post-industrial waste is a very important source of material for recycling. Technologies to treat post-consumer textiles are under development. ü It is largely recognized that manufacturers of fibres and textiles in Europe make every effort to have an efficient production and reduce waste, since this is an essential condition to remain competitive with producers in lower cost areas. ü Recycling solutions might not be economically viable or available for many specialty materials produced by European manufacturers, which therefore have limited recyclability. The fact that these materials do not appear in textile waste should be seen as a positive aspect, not one that needs to be penalized. The JRC should consider the competitiveness of the European industry and avoid proposing measures that disproportionately favour commodities produced outside Europe, mainly in Asia.
1265	9.2.4 Waste generation; 3241 - 3411	The industry calls for further alignment of the definitions post-industrial, pre-consumer and post-consumer waste with other relevant EU legislation such as Waste Framework Directive as well as End-of-Waste criteria, and other relevant industry standards, such as ISO, that will support the verification processes and ensure legal certainty for economic operators, their manufactures, as well as competent authorities and customs. Pre-consumer waste The definition of pre-consumer waste presented in the report is inconsistent with the framework established by the JRC team working on the End-of-Waste criteria for textiles. According to the JRC report "Developing EU-wide End-of-Waste criteria for textile waste", pre-consumer waste is specifically defined as waste generated at the retail level. The definition proposed by Task 4 report broadens this definition by including waste generated at the manufacturing stages. This discrepancy risks undermining alignment with established regulatory frameworks and risks legal certainty.

ID	Section & line	Comment
		Post-industrial waste The industry disagrees with the exclusion of post-industrial waste from the definition of the recycled content proposed by the JRC and the conclusion that it incentivise overproduction and overconsumption. The assertion that incorporating post-industrial waste into recycled content incentivizes the generation of such waste lacks supporting evidence. Generating additional waste during the production processes is not commercially viable for economic operators and is considered as an increase of costs and sign of inefficiencies in the supply chain. The efficiency of processes such as cutting patterns or other production procedures is not influenced by the use of post-industrial waste in recycled fiber production. Moreover, the use of post-industrial waste as recycled content requires significant investment at factory levels across different stages in the supply chain. Processes need to be established to ensure that waste generated at the apparel manufacturing stage is collected, sorted and transferred to the material producer further up the supply chain. Additionally, traceability systems are put in place to verify the origin of this material. The sector is working with many supply chain partners to put these into place. The recycling of post-industrial waste is often a more controlled process, guaranteeing the quality and safety of input materials particularly on mechanical recycling process, where the presence of legacy chemicals and material traceability are at higher level. Furthermore, the recycling technologies for post-industrial waste are already commercially available, particularly in Asia, where such systems are in operation. Excluding post-industrial waste will cause this waste to be landfilled or incinerated and disincentivises more sustainable options such as recycling. Maintaining it in the ISO 14021 definition will rather encourage the industry to take care of the manufacturing textile waste to re-enter the value stream under a controlled process. In consequence, we strongly call for the opportunity to achieve recycled content targets also via post-industrial waste during a transitional period until the majority of supply chain actors have established these processes. The JRC's approach will not only disincentivize activities mentioned above, but also miss the opportunity to support the establishment of proven measures to eliminate this waste stream by putting these supply chain structures in place. While the industry encourages increasing cutting efficiency and reducing cut waste, it is impossible to eliminate cut waste entirely so encouraging recycling of cut waste is imperative. Considering that the JRC has identified post-industrial waste as a concern in the context of waste creation, the sector is concerned by the absence of a proposed solution to support the reduction of this waste stream, in particular because there are proven processes and systems applied by many responsible supply chain actors that could be supported by the ecodesign standards. We would like to inquire why this has been omitted by the JRC and how the JRC would plan to address this waste stream?
1266	9.2.4 Waste generation; 3241 - 3411	We understand the reference "Post-industrial waste ranges from 25% to 45% of all fabric used in the production (Aus et al., 2021)" to mean that 25-45% of all fabrics used in production are ending up as post-industrial waste. According to experience of the sector, these numbers seem

ID	Section & line	Comment
		artificially high in comparison to the sector's numbers. According to the statistics presented by Re:Source, on average 15% of all fabric used to make apparel ends up on the cutting room floor as waste.
1267	9.2.4; 3241	Biodegradability of the material or its components should be considered under the section 'Expected generation of waste'.
1268	9.2.4; Page 122-123	We suggest elaborating on the categories/definitions. We currently find them to be too vaguely defined and there needs to be harmonization with other legislations i.e. The Waste Framework Directive as well as the delegated act for destruction of unsold textiles. For example; line 3258: Why are products considered waste just because they have been returned to the retailer? E.g., consumer returns a product purchased in the wrong size. The definition of pre-consumer waste needs to be linked to the definitions used under the delegated act for destruction of unsold textiles.
1269	9.2.4; 3241	Aligning definitions with existing ISO standards applied in the industry is critical. In the section on waste generation, the definitions of post-industrial, pre-consumer and post-consumer waste are not aligned with the definitions set under ISO, which have been internationally agreed and is currently widely used in industry and applied by existing standards on the market (e.g. Textile Exchange standards)..
1270	9.2.4; 3241	Critical to Align definitions with existing ISO standards applied in the industry: In the section on waste generation, the definitions of post-industrial, pre-consumer and post-consumer waste are not aligned with the definitions set under ISO, which is currently widely used in the industry and applied by existing standards on the market (e.g. Textile Exchange standards). Recognising the efforts that the industry has already taken by not changing already functioning business practises, will be critical to reduce the costs and effectiveness of implementation.
1271	9.2.4; 3241 to 3411	Waste generation: Placing a strong focus on the topic of waste generation, especially in terms of content, would be in our eyes the most effective measure under the ESPR to improve sustainability of textile products and at the same time combat the fast fashion business model. By defining the allowed content of textile waste in terms of its impact (e.g., residuals of chemicals and synthetic fibres causing harmful effects during incineration, or fibres with high risk of degrading into microplastics) and its biodegradability, by charging high eco-modulated fees for non-compliance and eventually prohibiting any textile products that do not meet these requirements, the ESPR could be much more effective in ensuring the use of environmentally friendly and biodegradable fibres (thus treating natural and synthetic fibres in a fair and target-oriented way), than by defining rather complicated ecodesign product parameters while not adequately tackling the massive waste problem. When looking at textile waste, ESPR must - even if post-consumer waste represents the largest volume (to be confirmed, see question below) - consider any type of textile waste that is generated along the value chain to encourage its reduction, including waste generated during the extraction of crude oil and subsequent distillation and synthesis to produce synthetic fibres. Regarding pre-consumer waste or the fact that huge quantities of unsold or returned clothing are destroyed, we welcome the prohibition of the destruction of unsold textile products which will be applied from July 2026. Pre-consumer waste generated outside of the EU market at the manufacturing stage must, however, be included in this ban, and it is to be ensured that brands must not pass the problems of dealing with the unsold goods to other operators in the value chain, such as outlets. When looking at waste, it is also crucial to take into account that there are massive deficits regarding the disposal of textile waste today and that waste which is not handled correctly leaks into the natural environment (mainly in regions in the Global South). According to a recent study, more than 80% of the textile related microplastics in the environment come from discarded synthetic clothing and not from the washing of apparel. (1)

ID	Section & line	Comment
		Question: In line 3275 it is stated that post-industrial waste ranges from 25% to 45% of ALL fabric used in the production. Given this high percentage, how is it possible that, according to Table 50, it only contributes 11% of the TOTAL textile apparel waste (including all types of waste)? Please clarify. Reference: (1) Bates Kassatly, V., Townsend, T. (2025): The Treatment of Microfibers in Life Cycle Analysis and Product Environmental Footprint Applications
1272	9.2.4; 3241- 3262	The definition of generation of waste must be aligned with WFD, especially when eco-modulation in WFD is supposed to be based on ESPR criteria, End of Waste criteria for Textiles and ESPR regarding unsold goods. Additionally, there are references in the JRC text stating that apparel textile products should be designed to increase emotional attachment to the user to limit the demand for new products. However, it is extremely complex to measure this, as each consumer may have different reasons for their emotional attachment to the garments. Some might prefer timeless pieces, while other value unique elements. Emotional durability lacks a clear definition and harmonised methodology to measure it. It is not an intrinsic characteristic of the product, making it challenging to analyse comprehensively. Moreover, the definition of "pre-consumer waste" provided in the Task 4 of the preliminary study for apparel textiles does not align with the ongoing work by the JRC End-of-Waste team. According to the framework in development, pre-consumer waste is defined as waste generated at the retail level and by retailers (ibid, p. 13). However, the Task 4 report indicates that pre-consumer waste includes waste generated at both the retail and manufacturing stages. Besides, the Task 4 report itself is not consistent on this matter because, despite the previous reference to pre-consumer waste as being generated at both the manufacturing and retail stages (section 1.2.4, page 32), in the specific section on pre-consumer waste (section 1.2.4.2.2, page 35), it refers exclusively to "the retailer stage" and to the policies "of the retailer". In this sense, waste generated during the manufacturing stage qualifies as "post-industrial waste" (section 1.2.4.2.1, page 34). It is also important to bear in mind that unsold products are not waste until they are discarded. In light of these comments, this sentence should be reformulated as follows: "Pre-consumer textile waste is generated at retailer stage, and it includes the following discarded unsold products". Additionally, if pre-consumer waste is textile waste generated because of discarding unsold textile products, the definitions must align with the provisions of unsold goods in the framework regulation to ensure legal clarity.
1273	9.2.4; 3241	This section make a general report about the waste generation in the textile industry. What are the proposition to improve this aspect ? You need to get closer to the current consumption modes and to the EPR from countries.
1279	9.2.4; 3242-3252	We recommend strongly on relying on ISO standards when it comes to definitions of textile waste, post-industrial, pre-consumer, and post-consumer with EN/ISO standards (EN/ISO standards - ISO 5157:2023 Textiles - Environmental Aspects – Vocabulary), rather than the Huygens et al, 2023 paper referenced as the source for the definition of post-industrial textile waste), as these are the most widely referenced applied in the industry. This alignment ensures consistency with the broader suite of EN/ISO standards and practises in the industry and helps minimize confusion in an already a highly complex landscape. This comment applies to the full section of recyclability & recycled content (9.2.5)

ID	Section & line	Comment
1280	9.2.4; 3242-3252	We suggest including a general definition of the "end-of-waste" concept which determines when the waste become a product, or a secondary raw material. It could also be considered as opportune to add the definition of "by-product" which is relevant for preventing waste, as the preferred option in the waste hierarchy.
1281	9.2.4; 3242-3262	o Definition must be aligned with WFD, especially when eco-modulation in WFD is supposed to be based on ESPR criteria (Section 9.2.4. Line 3242-3252. Heading: 'Waste generation'. Topic 'Definition must be aligned with WFD'). o If pre-consumer waste is textile waste generated because of discarding unsold textile products, the definitions must align with the provisions of unsold goods in the framework regulation to ensure legal clarity (Section 9.2.4. Line 3253-3262. Heading 'Waste generation'. Topic 'Pre-consumer textile waste must be aligned with The Ban on Destruction of Unsold Goods').
1287	9.2.4; 3247	The French AGEC law made rules about unsold textile products. French marketers must proove that they do not dispose their unsold products (except if they are dangerous for consumers). https://www.ecologie.gouv.fr/sites/default/files/documents/en_DP%20PJL.pdf
1288	9.2.4; 3249	The French eco-organism Refashion is in charge of collecting the post-consumer textile waste.
1289	9.2.4; 3253-3254	According to the WFD, "waste" refers specifically to any substance or object that the holder discards, intends to discard, or is required to discard. Therefore, unsold products can only qualify as waste where they are discarded or intended/ required to be discarded by their holder. This interpretation aligns with the Commission's ongoing work under the Ecodesign for Sustainable Products Regulation (ESPR) regarding the reporting of discarded unsold goods (article 24 ESPR), which only applies to goods sent for preparing for re-use, recycling, other recovery including energy recovery, or disposal – all of which constitute operations applicable not to products but to waste according to the WFD. It is also consistent with the preliminary views of the Commission on the definition of "discarding" as the act of disposing a product, which consequently renders the unsold consumer product waste as set out in question 133 of the document ESPR Frequently Asked Questions (FAQ) (page 65). Besides, this interpretation aligns with the ongoing work by the JRC End-of-Waste team –aiming to establish the End-of-Waste criteria for textiles which regarding pre-consumer waste–, which differentiates between articles that are donated to charities, redirected to outlet shops, third party sellers or exporters, and unsold products that are dispose as waste by retailers (Developing EU-wide End of Waste criteria for textile waste – Background paper for the 2nd stakeholder workshop, lines 279-284). Moreover, the definition of "pre-consumer waste" provided in the report does not align with the ongoing work by the JRC End-of-Waste team. According to the framework in development, pre-consumer waste is defined as waste generated at the retail level and by retailers (ibid, p. 13). However, the Task 4 Report indicates that pre-consumer waste includes waste generated at both the retail and manufacturing stages. Besides, the Task 4 Report itself is not consistent on this matter because, despite the previous reference to pre-consumer waste as being generated at both the manufacturing and retail stages (section 1.2.4, page 32), in the specific section on pre-consumer waste (section 1.2.4.2.2, page 35), it refers exclusively to "the retailer stage" and to the policies "of the retailer". In this sense, waste generated during the manufacturing stage qualifies as "post-industrial waste" (section 1.2.4.2.1, page 34). In light of these comments, we suggest rewording the sentence as follows: 'Pre-consumer textile waste is generated at retailer stage, and it includes the following discarded unsold products'.

ID	Section & line	Comment
1291	9.2.4; 3253-3254	Pre-consumer waste generated at retail stage. According to the WFD, “waste” refers specifically to any substance or object that the holder discards, intends to discard, or is required to discard. Therefore, unsold products can only qualify as waste where they are discarded or intended/ required to be discarded by their holder. This interpretation aligns with the Commission's ongoing work under the Ecodesign for Sustainable Products Regulation (ESPR) regarding the reporting of discarded unsold goods (article 24 ESPR), which only applies to goods sent for preparing for re-use, recycling, other recovery including energy recovery, or disposal – all of which constitute operations applicable not to products but to waste according to the WFD. It is also consistent with the preliminary views of the Commission on the definition of “discarding” as the act of disposing a product, which consequently renders the unsold consumer product waste as set out in question 133 of the document ESPR Frequently Asked Questions (FAQ) (page 65). Besides, this interpretation aligns with the ongoing work by the JRC End-of-Waste team –aiming to establish the End-of-Waste criteria for textiles which regarding pre-consumer waste–, which differentiates between articles that are donated to charities, redirected to outlet shops, third party sellers or exporters, and unsold products that are dispose as waste by retailers (Developing EU-wide End of Waste criteria for textile waste – Background paper for the 2nd stakeholder workshop, lines 279-284). Moreover, the definition of “pre-consumer waste” provided in the report does not align with the ongoing work by the JRC End-of-Waste team. According to the framework in development, pre-consumer waste is defined as waste generated at the retail level and by retailers (ibid, p. 13). However, the Task 4 Report indicates that pre-consumer waste includes waste generated at both the retail and manufacturing stages. Besides, the Task 4 Report itself is not consistent on this matter because, despite the previous reference to pre-consumer waste as being generated at both the manufacturing and retail stages (section 1.2.4, page 32), in the specific section on pre-consumer waste (section 1.2.4.2.2, page 35), it refers exclusively to “the retailer stage” and to the policies “of the retailer”. In this sense, waste generated during the manufacturing stage qualifies as “post-industrial waste” (section 1.2.4.2.1, page 34). In light of these comments, this sentence should be reformulated as follows: “Pre-consumer textile waste is generated at retailer stage, and it includes the following discarded unsold products”.
1292	9.2.4; 3253-3254	According to the WFD, “waste” refers specifically to any substance or object that the holder discards, intends to discard, or is required to discard. Therefore, unsold products can only qualify as waste where they are discarded or intended/ required to be discarded by their holder.
1298	9.2.4; 3255	This sentence should be removed. According to JRC’s work on end-of-waste criteria, pre-consumer waste is defined as waste generated at the retail level. Products that manufacturers do not send to brands or retailers due to order changes or cancellations cannot be classified as pre-consumer waste because they are not generated within the retail stage. Instead, these products fall under "post-industrial waste," which originates directly from the manufacturing stage, as stated in section 3.1.1 of JRC’s work on end-of-waste criteria (Table 1.- “Overview on post-industrial textile waste from different stages of manufacturing”). Besides, the Task 4 Report itself is not consistent on this matter because, despite the previous reference to the “finished products that the manufacturers do not send to their customers due to order change or cancellation” as pre-consumer waste (line 3255), in the specific section on post-industrial waste (section 9.2.4.2.1, page 124), it refers expressly to “changes or even cancellation of orders”

ID	Section & line	Comment
		as one of the causes of the increase in post-industrial textile waste at the manufacturing stage. Furthermore, the report lacks clarity regarding the reasons for order changes or cancellations. A notable reason is non-compliance with product standards established by brand retailers in contractual agreements with manufacturers –in terms of e.g. health, safety, hygiene, or quality. When manufacturers fail to meet these requirements, the resulting waste at the production stage should be classified as post-industrial waste, reflecting its origin in the manufacturing process rather than the retail stage. Proper classification is crucial to ensure alignment with waste management practices and avoid misrepresenting waste sources.
1300	9.2.4; 3255	Product changes or cancelations by customers. This sentence should be removed. According to JRC's work on end-of-waste criteria, pre-consumer waste is defined as waste generated at the retail level. Products that manufacturers do not send to brands or retailers due to order changes or cancellations cannot be classified as pre-consumer waste because they are not generated within the retail stage. Instead, these products fall under "post-industrial waste," which originates directly from the manufacturing stage, as stated in section 3.1.1 of JRC's work on end-of-waste criteria (Table 1.- "Overview on post-industrial textile waste from different stages of manufacturing"). Besides, the Task 4 Report itself is not consistent on this matter because, despite the previous reference to the "finished products that the manufacturers do not send to their customers due to order change or cancellation" as pre-consumer waste (line 3255), in the specific section on post-industrial waste (section 9.2.4.2.1, page 124), it refers expressly to "changes or even cancellation of orders" as one of the causes of the increase in post-industrial textile waste at the manufacturing stage. Furthermore, the report lacks clarity regarding the reasons for order changes or cancellations. A notable reason is non-compliance with product standards established by brand retailers in contractual agreements with manufacturers –in terms of e.g. health, safety, hygiene, or quality. When manufacturers fail to meet these requirements, the resulting waste at the production stage should be classified as post-industrial waste, reflecting its origin in the manufacturing process rather than the retail stage. Proper classification is crucial to ensure alignment with waste management practices and avoid misrepresenting waste sources.
1303	9.2.4; 3257	This sentence should be rephrased as follows: "Products that were ultimately discarded after being placed on the market and not purchased by consumers". Products that were placed on the market but not purchased by consumers can only be classified as waste if they are ultimately discarded, consistent with the WFD's definition of waste. This interpretation aligns with the Commission's ongoing work under ESPR regarding the reporting of discarded unsold goods, which only applies to goods sent for preparing for re-use, recycling, other recovery including energy recovery or disposal –all of which constitute operations applicable not to products but to waste. It is also consistent with the preliminary views of the Commission on the definition of "discarding" as the act of disposing a product, which as a consequence renders the unsold consumer product waste as set out in question 133 of the document ESPR FAQs (page 65). Besides, this interpretation aligns with the ongoing work by the JRC End-of-Waste team –aiming to establish the End-of-Waste criteria for textiles which regarding pre-consumer waste–, which differentiates between articles that are donated to charities, redirected to outlet shops, third party sellers or exporters, and unsold products that are dispose as waste by retailers. In any case, those products that were not purchased by consumers at the time, but which may be subject to a subsequent transaction (e.g. purchased by consumers after return to the store, sold at discounted prices in internal distribution channels, redirected to outlet shops, third party

ID	Section & line	Comment
		sellers, etc.) do not constitute unsold goods. These items only qualify as unsold if they ultimately fail to find a market and remain in the inventory of the retailer or third party, retaining their ownership. Moreover, they do not become "discarded unsold products" / "waste" until they are eventually discarded (Developing EU-wide End of Waste criteria for textile waste – Background paper for the 2nd stakeholder workshop, lines 284-291).
1305	9.2.4; 3257	Only discarded products should be classified as waste. This sentence should be rephrased as follows: "Products that were ultimately discarded after being placed on the market and not purchased by consumers". Products that were placed on the market but not purchased by consumers can only be classified as waste if they are ultimately discarded, consistent with the WFD's definition of waste. This interpretation aligns with the Commission's ongoing work under ESPR regarding the reporting of discarded unsold goods, which only applies to goods sent for preparing for re-use, recycling, other recovery including energy recovery or disposal –all of which constitute operations applicable not to products but to waste. It is also consistent with the preliminary views of the Commission on the definition of "discarding" as the act of disposing a product, which as a consequence renders the unsold consumer product waste as set out in question 133 of the document ESPR FAQs (page 65). Besides, this interpretation aligns with the ongoing work by the JRC End-of-Waste team –aiming to establish the End-of-Waste criteria for textiles which regarding pre-consumer waste–, which differentiates between articles that are donated to charities, redirected to outlet shops, third party sellers or exporters, and unsold products that are dispose as waste by retailers. In any case, those products that were not purchased by consumers at the time, but which may be subject to a subsequent transaction (e.g. purchased by consumers after return to the store, sold at discounted prices in internal distribution channels, redirected to outlet shops, third party sellers, etc.) do not constitute unsold goods. These items only qualify as unsold if they ultimately fail to find a market and remain in the inventory of the retailer or third party, retaining their ownership. Moreover, they do not become "discarded unsold products" / "waste" until they are eventually discarded (Developing EU-wide End of Waste criteria for textile waste – Background paper for the 2nd stakeholder workshop, lines 284-291).
1308	9.2.4; 3258	This sentence should be rephrased as follows: "Products that after being purchased and returned by the consumer, were ultimately discarded by the retailer". Products returned to the retailer after being purchased can only be classified as waste if they are ultimately discarded, consistent with WFD's definition of waste. This interpretation aligns with the Commission's ongoing work under ESPR regarding the reporting of discarded unsold goods, which only applies to goods sent for preparing for re-use, recycling, other recovery including energy recovery or disposal –all of which constitute operations applicable not to products but to waste. It is also consistent with the preliminary views of the Commission on the definition of "discarding" as the act of

ID	Section & line	Comment
		disposing a product, which as a consequence renders the unsold consumer product waste as set out in question 133 of the document ESPR FAQs (page 65). Besides, this interpretation aligns with the ongoing work by the JRC End-of-Waste team –aiming to establish the End-of-Waste criteria for textiles which regarding pre-consumer waste–, which differentiates between articles that are donated to charities, redirected to outlet shops, third party sellers or exporters, and unsold products that are dispose as waste by retailers. In any case, those products that were not purchased by consumers at the time, but which may be subject to a subsequent transaction (e.g. purchased by consumers after return to the store, sold at discounted prices in internal distribution channels, redirected to outlet shops, third party sellers, etc.) do not constitute "unsold goods". These items only qualify as unsold if they ultimately fail to find a market and remain in the inventory of the retailer or third party, retaining their ownership. Moreover, they do not become "discarded unsold products" / "waste" until they are eventually discarded (Developing EU-wide End of Waste criteria for textile waste – Background paper for the 2nd stakeholder workshop, lines 284-291).
1310	9.2.4; 3258	Only discarded products should be classified as waste. This sentence should be rephrased as follows: "Products that after being purchased and returned by the consumer, were ultimately discarded by the retailer". Products returned to the retailer after being purchased can only be classified as waste if they are ultimately discarded, consistent with WFD's definition of waste. This interpretation aligns with the Commission's ongoing work under ESPR regarding the reporting of discarded unsold goods, which only applies to goods sent for preparing for re-use, recycling, other recovery including energy recovery or disposal –all of which constitute operations applicable not to products but to waste. It is also consistent with the preliminary views of the Commission on the definition of "discarding" as the act of disposing a product, which as a consequence renders the unsold consumer product waste as set out in question 133 of the document ESPR FAQs (page 65). Besides, this interpretation aligns with the ongoing work by the JRC End-of-Waste team –aiming to establish the End-of-Waste criteria for textiles which regarding pre-consumer waste–, which differentiates between articles that are donated to charities, redirected to outlet shops, third party sellers or exporters, and unsold products that are dispose as waste by retailers. In any case, those products that were not purchased by consumers at the time, but which may be subject to a subsequent transaction (e.g. purchased by consumers after return to the store, sold at discounted prices in internal distribution channels, redirected to outlet shops, third party sellers, etc.) do not constitute "unsold goods". These items only qualify as unsold if they ultimately fail to find a market and remain in the inventory of the retailer or third party, retaining their ownership. Moreover, they do not become "discarded unsold products" / "waste" until they are eventually discarded (Developing EU-wide End of Waste criteria for textile waste – Background paper for the 2nd stakeholder workshop, lines 284-291).

ID	Section & line	Comment
1313	9.2.4; 3259-3262	This sentence should be removed. Finished products that fail to meet retailers' standards –in terms of e.g. health, safety, hygiene, or quality– are not accepted as they do not fulfil the contractual requirements or product specifications agreed upon with manufacturers. These rejected items, originating from manufacturing defects or failures, can therefore not be considered pre-consumer waste since they never enter the retail process or reach consumer-facing standards. Instead, these items should be classified as "post-industrial waste," reflecting their origin as manufacturing outputs that were unsuitable for retail distribution. This is also consistent with the Task 4 Report which mentions the lack of manufacturing quality control at the manufacturing stage leading to low-performing products rejected by fashion brands as one of the causes of the increase in post-industrial textile waste at the manufacturing stage (section 1.2.4.2.1, page 34). It is also aligned with JRC's work on end-of-waste criteria which mentions production errors as one of the causes of "post-industrial waste" (Developing EU-wide End of Waste criteria for textile waste – Background paper for the 2nd stakeholder workshop, lines 271).
1315	9.2.4; 3259-3262	Products that should not be considered pre-consumer waste. This sentence should be removed. Finished products that fail to meet retailers' standards –in terms of e.g. health, safety, hygiene, or quality– are not accepted as they do not fulfil the contractual requirements or product specifications agreed upon with manufacturers. These rejected items, originating from manufacturing defects or failures, can therefore not be considered pre-consumer waste since they never enter the retail process or reach consumer-facing standards. Instead, these items should be classified as "post-industrial waste," reflecting their origin as manufacturing outputs that were unsuitable for retail distribution. This is also consistent with the Task 4 Report which mentions the lack of manufacturing quality control at the manufacturing stage leading to low-performing products rejected by fashion brands as one of the causes of the increase in post-industrial textile waste at the manufacturing stage (section 1.2.4.2.1, page 34). It is also aligned with JRC's work on end-of-waste criteria which mentions production errors as one of the causes of "post-industrial waste" (Developing EU-wide End of Waste criteria for textile waste – Background paper for the 2nd stakeholder workshop, lines 271).
1316	Chapter 9; 3259	Not only big retailers, also producers, importers, manufacturers could place items on the market
1319	9.2.4.1; 3263-3285	To equate textile waste solely with apparel waste is too narrow and does not account for other forms of textile waste, such as industrial textiles, home furnishings, or non-wovens. The waste market is broader than just apparel and operators prioritize textile waste segments that align with their processing efficiency and economic viability. For example, non-wovens are a very important production sector in the European economy (and can drive uptake of domestic recycled content) that have been patently overlooked in this section 9.2.4.1.
1322	Chapter 9.2.4.1; 3273	Amount of textile waste available in the EU The amount of post-consumer waste available in the EU is highly overestimated. A large amount of it gets exported unsorted to non-EU countries and is not accessible for recycling. There's a very large difference between market potential and the real accessible market in terms of feedstock. Recommendation: We suggest further literature studies to improve the market model. Once separately collected, the following funnel must consider: a) share of

ID	Section & line	Comment
		textiles being sorted in EU vs. being exported unsorted; b) share of textiles not fit for reuse and therefore accessible for recycling; c) share of textiles where one certain material is the main fabric component, d) share of textiles where this one certain material has a dominant content in the main fabric (e.g. >80%). Potential sources: JRC Circular economy perspectives in the EU Textile sector report 2021; FFG Sorting for Circularity, McKinsey whitepaper Scaling textile recycling in Europe–turning waste into value 2022; reports from Moda-Re / Caritas Spain and Refashion
1326	9.2.4.1; 3282-3285	Several retailers have made significant efforts to reduce plastic in packaging and implement recycling systems. This information needs to be updated.
1327	9.2.4.1; 3282-3285	Several retailers have made significant efforts to reduce plastic in packaging and implement recycling systems. This information needs to be updated.
1329	9.2.4.2; 3289-3295	We commend the JRC for pointing out the dire consequences of the dominant business model in the fashion industry. We believe that artificially low prices should be included among the enablers of overconsumption. Compared to the end of the last century, consumers now buy many more textile products while paying much less. These artificially low prices have a detrimental effect on consumer perception of clothing value, acquisition, care, and disposal practices, i.e. the “disposable fashion” mentality. The clothing and footwear sectors are known for significant power imbalances between the brands and retailers on one side, and the manufacturers on the other side. Unfair trading practices have been documented in many countries, including in the EU (Ljarja A., Musiolek B. and Vanpeperstraete B. (2023). FAST FASHION PURCHASING PRACTICES IN THE EU. Unfair business relations between fashion brands and suppliers, Fair Trade Advocacy Office and Clean Clothes Campaign Europe). Companies offer cheaper and cheaper products to consumers but the social conditions and environmental consequences of producing them are not always transparent to consumers and civil society. Dropping prices are often the result of externalising the environmental and social costs of production and disposal.
1330	9.2.4.2; 3289-3295	We commend the JRC for pointing out the dire consequences of the dominant business model in the fashion industry. We believe that artificially low prices should be included among the enablers of overconsumption. Compared to the end of the last century, consumers now buy many more textile products while paying much less. These artificially low prices have a detrimental effect on consumer perception of clothing value, acquisition, care, and disposal practices, i.e. the “disposable fashion” mentality. The clothing and footwear sectors are known for significant power imbalances between the brands and retailers on one side, and the manufacturers on the other side. Unfair trading practices have been documented in many countries, including in the EU (Ljarja A., Musiolek B. and Vanpeperstraete B. (2023). FAST FASHION PURCHASING PRACTICES IN THE EU. Unfair business relations between fashion brands and suppliers, Fair Trade Advocacy Office and Clean Clothes Campaign Europe). Companies offer cheaper and cheaper products to consumers but the social conditions and environmental consequences of producing them are not always transparent to consumers and civil society. Dropping prices are often the result of externalising the environmental and social costs of production and disposal.
1331	9.2.4.2; 3289-3295	We commend the JRC for pointing out the dire consequences of the dominant business model in the fashion industry. We believe that artificially low prices should be included among the enablers of overconsumption. Compared to the end of the last century, consumers now buy many more textile products while paying much less. These artificially low prices have a detrimental effect on consumer perception of clothing value, acquisition, care, and disposal practices, i.e. the “disposable fashion” mentality. The clothing and footwear sectors are known for significant power imbalances between the brands and retailers on one side, and the manufacturers on the other side. Unfair trading practices have been documented in many countries, including in the EU (Ljarja A., Musiolek B. and Vanpeperstraete B. (2023). FAST FASHION PURCHASING PRACTICES IN THE EU. Unfair business relations between fashion brands and suppliers, Fair Trade Advocacy Office and Clean Clothes Campaign Europe). Companies offer cheaper and cheaper products to consumers but the social conditions and environmental consequences of producing them are not always transparent to consumers and civil society. Dropping prices are often the result of externalising the environmental and social costs of production and disposal.
1332	9.2.4.2; 3289-3293 and 3318-3319	‘Collections’ must also be more clearly defined, what does this include or not include?
1333	9.2.4.2; 3289-3295	We recommend to add "low prices" to the list of incentives of overproduction. The clothing and footwear sectors are known for significant power imbalances between the brands and retailers on one side, and the manufacturers on the other side. Social and environmental costs are externalised which results in ever cheaper clothes. Lower prices then means more consumption. This fact is e.g. acknowledged in a briefing by the European

ID	Section & line	Comment
		Parliament Research Service: "Several trends have contributed to this increase in consumption. One is the fall in the price of garments in the last few decades. According to the same EEA report, between 1996 and 2012 the price of clothing increased by 3 %, but consumer prices in general rose by about 60 %. This meant that, relative to the EU consumer consumption basket, the price of clothing fell by 36 %. At the same time, the share of clothing in household consumption stayed largely the same: it was 5 % in 1995 and 4 % in 2017." https://www.europarl.europa.eu/RegData/etudes/BRIE/2019/633143/EPRS_BRI(2019)633143_EN.pdf
1334	9.2.4.2; 3289-3295	We commend the JRC for highlighting the severe consequences of the prevailing business model in the fashion industry. We believe that "artificially low prices" should explicitly be recognized as a key driver of overconsumption. Compared to the end of the last century, consumers now purchase far more textile products at much lower prices. These artificially low prices negatively impact how consumers perceive the value of clothing, influencing their purchasing, care, and disposal behaviors—fostering the "disposable fashion" mentality. The clothing and footwear sectors are characterized by significant power imbalances between brands and retailers on one side, and manufacturers on the other. Unfair trading practices have been documented in numerous countries, including the EU (Ljarja A., Musiolek B., and Vanpeperstraete B. (2023). Fast Fashion Purchasing Practices in the EU). Companies continue to offer cheaper products, but the social and environmental costs of their production and disposal are often hidden from consumers and the public. Falling prices are frequently a result of externalizing these environmental and social costs.
1335	9.2.4.2; 3289-3295	We commend the JRC for pointing out the dire consequences of the dominant business model in the fashion industry. We believe that artificially low prices should be included among the enablers of overconsumption. Compared to the end of the last century, consumers now buy many more textile products while paying much less. These artificially low prices have a detrimental effect on consumer perception of clothing value, acquisition, care, and disposal practices, i.e. the "disposable fashion" mentality. The clothing and footwear sectors are known for significant power imbalances between the brands and retailers on one side, and the manufacturers on the other side. Unfair trading practices have been documented in many countries, including in the EU (Ljarja A., Musiolek B. and Vanpeperstraete B. (2023). FAST FASHION PURCHASING PRACTICES IN THE EU. Unfair business relations between fashion brands and suppliers, Fair Trade Advocacy Office and Clean Clothes Campaign Europe). Companies offer cheaper and cheaper products to consumers but the social conditions and environmental consequences of producing them are not always transparent to consumers and civil society. Dropping prices are often the result of externalising the environmental and social costs of production and disposal.
1340	9.2.4.2; 3291-3293 and 3318-3319	It is a very stretched assumption to conclude that brands have 47 new collections per year and lead times as low as 15-21 days. And the assumption that they offer multiple seasonal discounts. 95 % (+) of our members er SME's that only offers a small fraction of the claimed number of collections per year and is nowhere near such a short lead time. The vast majority sell via wholesale and do not own their own retail channels and therefore have limited influence on the sales that their costumers (retail) conducts." Our latest survey from our members: An increasing number report changes in their product strategies—44% have reduced seasonal styles, 40% have increased NOOS (Never Out of Stock) products, and 24% have launched fewer collections over the past two years. We are happy to share our yearly results from our member survey.

ID	Section & line	Comment
		The “fast fashion” assumption is not representative for the majority of apparel companies in Europe.
1342	9.2.4.2; 3291-3295	Supporting evidence on business models & waste generation correlation. What are the references or scientific evidence supporting these statements? To the best of our knowledge, there is no scientific evidence to support a direct correlation between certain business models and waste generation. Waste generation is more closely related to e.g. inefficiencies in production processes or product durability, than specific commercial practices such as discounts..
1343	9.2.4.2; 3291-3295	More light should be shed on the ultra-fast fashion model which is very recently rising, and which significantly contributes to overconsumption, with consumers being incentivized to buy more clothing than necessary and discarding items more quickly. For example, in 2024, online platforms, including SHEIN and Temu, accounted for 23% of fashion sales in France (https://fr.fashionnetwork.com/news/Shein-et-temu-au-sommet-des-enseignes-ou-les-depenses-des-francais-ont-grimpe-en-2024,1700807.html#ifm-master-of-arts). While comprehensive academic studies specifically comparing SHEIN's product release volume to that of traditional fast fashion brands like Zara and H&M are limited, several sources highlight the significant disparity in the number of new items introduced by these companies: for example, in 2022, SHEIN launched approximately 315,000 new items, whereas Zara and H&M released about 6,850 and 4,400 new items, respectively. Roberti et al. (2024), in a study (“Unsustainable Fashion: SHEIN and the Fast Fashion Consumption Model”) focusing on young female Italian consumers, examined purchasing motivations and concerns related to sustainability when shopping on platforms like SHEIN. The findings suggest that the constant introduction of new fashion products by SHEIN encourages frequent purchases, contributing to overconsumption: “this often-compulsive purchase of items, perceived as mediocre, inevitably leads to an accumulation of garments and accessories that need to be discarded, perhaps without even being worn, thus promoting the overall unsustainability of the fashion supply chain”. Furthermore, the ultra-fast fashion has recently led to a decline in the quality of textiles found in used clothing collection bins. This could eventually become problematic, once post-consumer textile waste is to be used as input for recycling, since the quality of recycled textiles is heavily dependent on the quality of the input materials. Ultra-fast fashion brands often use cheaper synthetic fibers, blended fabrics, and lower-quality production methods – which are more difficult to recycle.
1347	9.2.4.2 (page 124); 3294-3295	While this may be true in some instances, we observe that many limited editions in the market arise when a particular raw material or innovation is available only in extremely limited quantities. We do not intend to suggest that retailers and brands deliberately misuse this term.
1350	9.2.4.2; 3296-3300	The claim oversimplifies the dynamics of consumer-led operation models. Companies leverage advanced forecasting tools, data analytics, and trend prediction techniques to accurately gauge customer demand. This approach enables them to work closely with suppliers and issue orders for items with a high likelihood of selling, thereby minimizing unsold inventory and reducing the risk of overproduction.
1352	9.2.4.2; 3296-3300	The claim oversimplifies the dynamics of consumer-led operation models. Companies leverage advanced forecasting tools, data analytics, and trend prediction techniques to accurately gauge customer demand. This approach enables them to work closely with suppliers and issue orders for items with a high likelihood of selling, thereby minimizing unsold inventory and reducing the risk of overproduction.
1355	Chapter 9; 3302-3305	Esp. Professional users also choose products based on functionality and quality.

ID	Section & line	Comment
1356	9.2.4.2.1; 3308-3347	Stock surpluses due to overproduction, cutting scraps, and also damaged materials (defective fabrics, moth-eaten yarns) should be considered.
1357	9.2.4.2.1 (9.2.4); Page 124	Why is production-on-demand not mentioned as an option for optimization?
1362	9.2.4.2.1Post-industrial waste; 3311	> The previous section 9.2.4.2 correctly identifies that the dominant business models of fashion brand incentivise overproduction. However, the reasons identified in section 9.2.4.2.1 shift disproportionate blame onto suppliers, while it is buyers who wield disproportionate power via their purchasing practices. This disproportionate power by buyers was also noted in a 2013 European Commission Green Paper on "unfair purchasing practices" (UTPs) (https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52013DC0037), in which it identified nine specific UTPs to be addressed, including automatic charge of retailer's promotional cost, charge backs, delayed payments, return of unsold goods, sudden termination of supply relationship and exploitation of innovative ideas embodied in the samples. > For instance, a false statement is that "suppliers overproduce to benefit from economies of scale." This is incorrect – suppliers do not usually have big margins, so unless they have a customer buying, it would not be beneficial to produce. As per our knowledge, most factories (especially in the fast fashion sector) only buy fabrics once an order comes in. Rather, overproduction takes place because of a culture of overconsumption, and buyers demanding several micro-collections per year with vague order requests and last-minute cancellations. Additionally, the report states that waste is generated because "material belonging to cancelled orders is directly wasted rather than remanufactured". Here, the language should be changed, as it suggests that cancelling orders is acceptable, while wastage is not.
1363	9.2.4.2.1; 3311-3312	We suggest deleting the reference to North American because it is not relevant for the purposes of this document.
1364	9.2.4.2.1; 3311	The previous section 9.2.4.2 correctly identifies that the dominant business models of fashion brand incentivise overproduction. However, the reasons identified in section 9.2.4.2.1 shift disproportionate blame onto suppliers, while it is buyers who wield disproportionate power via their purchasing practices. This disproportionate power by buyers was also noted in a 2013 European Commission Green Paper on "unfair purchasing practices" (UTPs) (https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52013DC0037), in which it identified nine specific UTPs to be addressed, including automatic charge of retailer's promotional cost, charge backs, delayed payments, return of unsold goods, sudden termination of supply relationship and exploitation of innovative ideas embodied in the samples. > For instance, a false statement is that "suppliers overproduce to benefit from economies of scale." This is incorrect – suppliers do not usually have big margins, so unless they have a customer buying, it would not be beneficial to produce. As per our knowledge, most factories (especially in the fast fashion sector) only buy fabrics once an order comes in. Rather, overproduction takes place because of a culture of overconsumption, and buyers demanding several micro-collections per year with vague order requests and last-minute cancellations. Additionally, the report states that waste is generated because "material belonging to cancelled orders is directly wasted rather than remanufactured". Here, the language should be changed, as it suggests that cancelling orders is acceptable, while wastage is not.
1365	9.2.4.2.1; 3311	> The previous section 9.2.4.2 correctly identifies that the dominant business models of fashion brand incentivise overproduction. However, the reasons identified in section 9.2.4.2.1 shift disproportionate blame onto suppliers, while it is buyers who wield disproportionate power via their purchasing practices. This disproportionate power by buyers was also noted in a 2013 European Commission Green Paper on "unfair purchasing practices" (UTPs) (https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52013DC0037), in which it identified nine specific UTPs to be addressed, including automatic charge of retailer's promotional cost, charge backs, delayed payments, return of unsold goods, sudden termination of supply relationship and exploitation of innovative ideas embodied in the samples. > For instance, a false statement is that "suppliers overproduce to benefit from economies of scale." This is incorrect – suppliers do not usually have big margins, so unless they have a customer buying, it would not be beneficial to produce. As per our knowledge, most factories (especially in the fast fashion sector) only buy fabrics once an order comes in. Rather, overproduction takes place because of a culture of overconsumption, and buyers demanding several micro-collections per year with vague order requests and last-minute cancellations. Additionally, the report states that waste is generated because "material belonging to cancelled orders is directly wasted rather than remanufactured". Here, the language should be changed, as it suggests that cancelling orders is acceptable, while wastage is not.

ID	Section & line	Comment
1366	9.2.4.2.1; 3311-3329	The statement that “suppliers overproduce to benefit from economies of scale” is incorrect. Suppliers typically work with small margins and only produce when orders are confirmed. Overproduction is largely a result of a culture of overconsumption, with buyers requesting multiple micro-collections, vague orders, and frequent last-minute cancellations.
1367	9.2.4.2.1; 3311	In the discussion in section 9.2.4 of how to reduce waste in the textile sector, we appreciate that you seek to identify root causes of waste generation and tackle the problem of “fast fashion” at its core. The previous section 9.2.4.2 correctly identifies that the dominant business models of fashion brand incentivise overproduction. However, the reasons identified in section 9.2.4.2.1 shift disproportionate blame onto suppliers, while it is buyers who wield disproportionate power via their purchasing practices. This disproportionate power by buyers was also noted in a 2013 European Commission Green Paper on “unfair purchasing practices” (UTPs) (https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52013DC0037), in which it identified nine specific UTPs to be addressed, including automatic charge of retailer's promotional cost, charge backs, delayed payments, return of unsold goods, sudden termination of supply relationship and exploitation of innovative ideas embodied in the samples. For instance, a false statement is that “suppliers overproduce to benefit from economies of scale.” This is incorrect – suppliers do not usually have big margins, so unless they have a customer buying, it would not be beneficial to produce. As per our knowledge, most factories (especially in the fast fashion sector) only buy fabrics once an order comes in. Rather, overproduction takes place because of a culture of overconsumption, and buyers demanding several micro-collections per year with vague order requests and last-minute cancellations. Additionally, the report states that waste is generated because “material belonging to cancelled orders is directly wasted rather than remanufactured”. Here, the language should be changed, as it suggests that cancelling orders is acceptable, while wastage is not.
1368	9.2.4.2.1; 3311	The previous section 9.2.4.2 correctly identifies that the dominant business models of fashion brand incentivise overproduction. However, the reasons identified in section 9.2.4.2.1 shift disproportionate blame onto suppliers, while it is buyers who wield disproportionate power via their purchasing practices. This disproportionate power by buyers was also noted in a 2013 European Commission Green Paper on “unfair purchasing practices” (UTPs) (https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX%3A52013DC0037), in which it identified nine specific UTPs to be addressed, including automatic charge of retailer's promotional cost, charge backs, delayed payments, return of unsold goods, sudden termination of supply relationship and exploitation of innovative ideas embodied in the samples.
1370	9.2.4.2.1; 3317-3329	It is stated that “Lead time from the concept of the textile apparel to the potential customer purchase could be as short as 15-21 days. This business model challenges a careful design, resource planning, and quality control during the manufacturing processes”. This is more nuanced as lead times are most often significantly longer than 15-21 days, often between 6 to 12 months.
1375	9.2.4.2.1; 3321	Since the generation of post-industrial waste incurs a cost to the manufacturer (as it results from inefficient resource management), the trend is always to be more efficient and reduce post-industrial waste generation rather than the opposite. It is worth noting, however, that although Figure 24, global consumption increases, the only waste stream that can be said to grow proportionally is post-consumption waste.
1382	9.2.4.2.2; 3349	It is important to underline that unfair commercial practices may lead to the generation of pre-consumer waste, in particular if brands cancel orders too late, once the manufacturers have already finished the products. In that case, functioning products are destined to be discarded. We encourage the JRC to highlight this aspect in the PS.
1383	9.2.4.2.2; 3349	It is important to underline that unfair commercial practices may lead to the generation of pre-consumer waste, in particular if brands cancel orders too late, once the manufacturers have already finished the products. In that case, functioning products are destined to be discarded. We encourage the JRC to highlight this aspect in the PS.
1384	9.2.4.2.2; 3349	It is crucial to emphasise that unfair trading practices can contribute to pre-consumer waste, especially when brands cancel orders after manufacturers have already completed the products. In such cases, fully functional items are often discarded. We encourage the JRC to address this issue in the PS.

ID	Section & line	Comment
1385	9.2.4.2.2; 3349	It is important to underline that unfair commercial practices may lead to the generation of pre-consumer waste, in particular if brands cancel orders too late, once the manufacturers have already finished the products. In that case, functioning products are destined to be discarded. We encourage the JRC to highlight this aspect in the PS.
1389	9.2.4.2.1; 3360-3361	The statement does not reflect actual industry practices. In reality, effective retailers often adopt low-inventory models, such as demand-driven replenishment strategies, to adapt swiftly to changing market conditions. These approaches minimize excess stock and allow retailers to respond more dynamically to consumer preferences. Enlarging inventories without assessing consumer demand, as suggested, is generally counterproductive.
1391	9.2.4.2.1; 3360-3361	Pre-consumer waste. The statement does not reflect actual industry practices. In reality, effective retailers often adopt low-inventory models, such as demand-driven replenishment strategies, to adapt swiftly to changing market conditions. These approaches minimize excess stock and allow retailers to respond more dynamically to consumer preferences. Enlarging inventories without assessing consumer demand, as suggested, is generally counterproductive.
1394	9.2.4.2.2 9.2.4.2.3 9.2.4.3; 3362 – 3363 3386 – 3391 3401 - 3402	Pre-consumer and post-consumer waste and consumption vs production as a driver for volumes, which is mainly caused by fashion fads, personal taste or social life: “The generation of waste is not an intrinsic property of a single product technology, but rather depends on many elements of its ecosystem, and is driven by the total consumption of textile apparel.” First JRC writes the dynamics that lead to brands producing stuff that doesn’t get sold, then later say this is driven by trends, personal taste and consumption in general. But it is the quantity produced (and imported) that is crucial, not how much of it is purchased. The quantities drive the price down, and when they are not sold at full price, the prices are ‘dumped’ (they go on sale) and the consumer, who is at the receiving end of heavy marketing ploys, carries the ‘waste’ out of the store. Once again it comes down to addressing the volumes, and not unfairly blaming the consumer. Remember that much more is produced than bought, in spite of prices being dumped.
1401	9.2.4.2.2; 3377-3378	This statement should be deleted. The statement is not aligned with JRC’s ongoing work on End-of-Waste criteria for textiles. According to the latest draft, “pre-consumer waste” is defined as waste generated at the retail level, while waste generated during the manufacturing stage qualifies as “post-industrial”. Moreover, unsold products can only be considered waste when they are discarded or intended/required to be discarded by their holder, in line with the WFD. This is further underpinned by the preliminary views of the Commission on the definition of “discarding” as the act of disposing a product, which as a consequence renders the unsold consumer product waste as set out in question 133 of the document ESPR FAQs (page 65). With overconsumption and overproduction being such indeterminate concepts, generalized statements such as this one should not be included in the document. Establishing causality between how a business operates and consumer behaviour in such a deterministic matter is risky and technically inaccurate. It appears that the study aims to assert ideas that are not supported by scientific evidence.
1403	9.2.4.2.2; 3377-3378	Pre-consumer waste. This statement should be deleted. The statement is not aligned with JRC’s ongoing work on End-of-Waste criteria for textiles. According to the latest draft, “pre-consumer waste” is defined as waste generated at the retail level, while waste generated during the manufacturing stage qualifies as “post-industrial”.

ID	Section & line	Comment
		Moreover, unsold products can only be considered waste when they are discarded or intended/required to be discarded by their holder, in line with the WFD. This is further underpinned by the preliminary views of the Commission on the definition of “discarding” as the act of disposing a product, which as a consequence renders the unsold consumer product waste as set out in question 133 of the document ESPR FAQs (page 65).
1406	9.2.4.2.3 (page 126); 3389-3390	This statement minimizes the influence of physical durability on disposal behavior. We agree with it; however, we would appreciate clarification on how and where you intend to address it. At present, it does not seem to be reflected in Table 44, which appears to indirectly prioritize the least expensive materials.
1407	9.2.4.2.3; 3395-3397	Need to define what is included in waste management (collection, sorting, delivery to chemical recyclers, etc?). And regarding recycling technologies, can already private companies that are developing technologies take part in this, such as chemical recyclers? See 4.1.2
1408	9.2.4.2.3 (page 126); 3395-3397	Could you clarify whether the term "waste management" encompasses both the establishment of recycling infrastructure and recycling operations? This would typically be assumed, but the distinction becomes somewhat unclear given that research and development for recycling is presented as a separate category. At present, chemical recyclers face significant risks, making long-term investments in both recycling technologies and operations essential. The current market situation indicates that consumers may be unwilling to pay a premium for textiles made from recycled fibers compared to those produced from virgin materials. As you have already noted in the PS, this results in insufficient demand for recycled fibers, given their higher cost—even in cases where the necessary infrastructure exists and could support increased production. To foster a viable circular textile economy, it is essential to support not only the research and development costs of recycling technologies and the establishment of recycling infrastructure but also ongoing recycling operations—at least until circular textile design is widely adopted. This approach would help mitigate the substantial market entry and scaling risks faced by recyclers. Bridging the cost gap between textile waste utilization and conventional raw materials will be a key factor in scaling up recycling efforts across Europe.
1409	9.2.4.3; 3405-3407	Due to the ambiguity of overconsumption and overproduction, generalized statements like this should be excluded from the report. Establishing a direct link between business operations and consumer behaviour in this way is risky and inaccurate. The study seems to promote ideas not backed by scientific evidence. Moreover, overproduction is fundamentally poor business for companies; therefore, the causes and dynamics of the significant clothing production and consumption we see must be viewed in a broader context than what any individual company can be held accountable for through product legislation. Again, we must emphasize this “fast fashion” assumption is not representative for the majority of apparel companies in Europe.
1411	9.2.4.3; 3405-3407	With overconsumption and overproduction being such indeterminate concepts, generalized statements such as this one should not be included in the document. Establishing causality between how a business operates and consumer behaviour in such a deterministic matter is risky and technically inaccurate. It appears that the study aims to assert ideas that are not supported by scientific evidence.
1417	9.2.4.3; 3408-3411	We understand the complexity of distinguishing BC, BAT and BNAT in this context, but we encourage the JRC to apply that distinction to business models. The JRC rightly mentions the contribution that business models have to waste generation and that could be considered as BC. As BAT you

ID	Section & line	Comment
		could consider circular business models, implemented by companies that support consumers buying fewer new products and that offer services to keep the products they purchased in use for longer. These companies need also to have a maximum volume of new products placed on the market as well as a maximum number of collections and avoid advertising that incentivizes relentless consumption. Nonetheless, we are aware that these business models are not always profitable for a series of constraints – these cases should be identified as BNAT.
1418	9.2.4.3; 3408-3411	We understand the complexity of distinguishing BC, BAT and BNAT in this context, but we encourage the JRC to apply that distinction to business models. The JRC rightly mentions the contribution that business models have to waste generation and that could be considered as BC. As BAT you could consider circular business models, implemented by companies that support consumers buying fewer new products and that offer services to keep the products they purchased in use for longer. These companies need also to have a maximum volume of new products placed on the market as well as a maximum number of collections and avoid advertising that incentivizes relentless consumption. Nonetheless, we are aware that these business models are not always profitable for a series of constraints – these cases should be identified as BNAT.
1419	9.2.4.3; 3408-3411	We understand the complexity of distinguishing BC, BAT and BNAT in this context, but we encourage the JRC to apply that distinction to business models. The JRC rightly mentions the contribution that business models have to waste generation and that could be considered as BC. As BAT you could consider circular business models, implemented by companies that support consumers buying fewer new products and that offer services to keep the products they purchased in use for longer. These companies need also to have a maximum volume of new products placed on the market as well as a maximum number of collections, avoid advertising that incentivizes relentless consumption and implement fair purchasing practices. Nonetheless, we are aware that these business models are not always profitable for a series of constraints – these cases should be identified as BNAT.

Annex 17. Comments on recyclability & recycled content

Table 40. Comments on recyclability & recycled content

ID	Section & line	Comment
1420	Recyclability and recycled content; 3412	Recyclability: Fibre recycling into textiles is desirable, but could be very challenging, since recycled material may not be suitable for use in textiles and even more so in apparel. ü Open loop recycling should be allowed as a second-best option to maximize fibre recovery, valorise textile waste and enhance the creation of a viable European recycling textile value chain. It may be the most efficient solution in a number of proven cases and allow for the recycled materials to be re-used inside the EU, rather than being exported. It avoids speciality fibres to be penalized vs. (imported) commodities. ü Open loop recycling also allows to exploit the full potentiality of industrial symbiosis, thus increasing global recycling rates. ü A flexible approach to recycling technologies, including mechanical, thermo-mechanical and chemical recycling is more suited to tackling the complexities of textile waste recycling. ü Mechanically recycled materials should preferably be used where they can be optimally processed. Spinning (especially for filaments) has some of the highest requirements in terms of raw material quality and purity.

ID	Section & line	Comment
		ü In the context of chemical recycling, mass balance has to be taken into account as well. Individual plants for chemical recycling may not all be operated exclusively with textile waste.
1421	9.2.5 Recyclability and recycled content; 3412 - 3700	The sector would like to inquire about the reasons and substantiation for taking a different and more ambitious approach for apparel recyclability than sectors with a higher maturity of recycling technologies and high percentages of closed loop recycling materials used on the market. For example, in the packaging sector, the EU PPWR prescribes for all packaging to be recyclable based on design for recycling criteria established on detailed sub-categories of materials used and to be laid out via dedicated delegated acts in the coming years (cf. PPWR Art. 6). Based on these criteria, packaging is assessed and graded according to its recyclability with the highest standard Grade A representing recyclability of 95%. Materials defined as “technically non recyclable” are defined as recyclable to lower than 70%. The PPWR will require recyclability of packaging along these grades over the coming years with longer timeframes than currently foreseen to our understanding for the textile delegated act. In its approach, the PPWR clearly acknowledges in a sector with recycling technologies available at scale across several materials, that: - 95% recyclability is considered the highest standards - A phased in approach, with material specific considerations, incentivizing increasing material recyclability - Recyclability is not tied to the use of this material again in packaging only Could the JRC outline whether it has taken the lessons learnt and approach chosen for packaging into account and if yes, why this approach has been dismissed for apparel, which represents an even more complex and heterogenous material mix.
1422	9.2.5 Recyclability and recycled content; 3412 - 3700	The setting of the minimum requirements on recycled content should support the establishment of recycling technologies and infrastructure to achieve full circularity based on textile to textile recycled content. As the JRC rightly recognizes, technologies are emerging for textile apparel and not yet applied at scale. Within this context, the approach taken by the JRC in practice will disincentivize the use of lower impact materials in substitution of higher impact virgin materials during the transition to textile to textile recycling. The sector highly recommends allowing for transition technologies such as post-industrial waste and PET bottles, to allow gains on sustainability also during the transition time via the use of lower impact materials and the reduction of these waste streams. The substitution of virgin materials with recycled content has to take into consideration the need for and availability of a sufficient amount of high-quality secondary raw materials and the existence of the right infrastructure to process them. The introduction of minimum requirements shall also consider the technical limitations, such as feasibility depending on the type of recycled fibres or recycled yarns and consider the introduction of instruments to provide flexibility to overcome these limitations and ensure a level playing field. It has to be noted that recycled materials are often still more expensive than virgin materials. A lack of their recognition will therefore directly support the financial pull of using virgin materials.

ID	Section & line	Comment
		In this context, the industry advocates for maintaining the integration of recycled content derived from PET bottle not used by the food contact materials industry as a transitional technology in step-wise approach in introducing mandatory recycled content. These materials are alternatively downcycled, sent to energy recovery or landfilling. It is therefore unclear to the sector, why the JRC is preventing their use as input material replacing virgin material and reducing environmental impact in the textile sector until textile to textile technologies have been scaled. Abruptly preventing the use of recycled PET bottle content in the textile industry could have the following negative consequences: • Shift to Virgin Polyester: Without access to recycled PET, many companies may resort to using virgin polyester, which would significantly increase the environmental footprint. • Environmental Risks: Currently, only about one-third of global PET bottle production is retained within a closed-loop recycling system. Restricting the textile industry from using these recycled materials could increase pollution levels, with the risk of PET bottles being sent to landfill, energy recovery or other unmanaged waste disposal. The sector would like to inquire whether the JRC has scientific evidence that disregarding transition technologies such as industrial recycled content and PET bottles would improve the sustainability performance of apparel placed on the EU market?
1423	9.2.5 Recyclability and recycled content; 3412 - 3700	We recommend for the JRC to review the rules and methodologies applied for recycled content requirements for plastic bottles under the EU's Single Use Plastic Directive, with the minimum requirements set at product level and a company reporting approach applied.
1424	9.2.5 Recyclability and recycled content; 3412 - 3700	The industry inquires the JRC on the basis of assessment of the Technology Readiness Level, in particular whether the conclusions were drafted upon the analysis of the global situation or limited to the European market only. European market, in comparison with global state of art is in many cases at the pilot stages and not yet fully operational, at TRL 7 – 9. The industry wishes to remark that the proposed grouping of the recycled techniques are still a simplified overview. It is worth highlighting that pure textile to textile recycling for PA6 and PA66 is relatively nascent. The industry wishes to remark lack legacy substances and skin sensitizer on the list of disruptors under the mechanical recycling as well as missing references to Nylon 66 in the chemical recycling for synthetic fibres. Also, on chemical recycling disruptors, contaminants like dyes are fully removed during chemical recycling processes to purify monomers/oligomers into colourless virgin materials.
1425	9.2.5; TABLE 51	Banned hazardous substances are a major disruptive factor, particularly for mechanical recycling. This is not a direct disruption to recycling, but it is a disruption to the use of materials from these processes. Products placed on the market several years ago may contain substances that were not identified as dangerous at the time but are now identified as dangerous and banned.
1426	9.2.5; Recycled PET	Use of PET Bottles in the Textile Industry

ID	Section & line	Comment
		• There is currently a lack of data proving that the textile industry uses PET bottles that would have otherwise been utilized by the plastic bottle industry. In other words, there is no scientific evidence indicating that the plastic industry is experiencing a shortage of bottles due to the textile industry tapping into “their loop”. • While there is a strong willingness of brandowners to invest in, and purchase products with made of fiber-to-fiber (F2F) recycled material, the availability of such materials remains insufficient for widespread adoption. Until the F2F market expands, textile companies require an alternative recycled source. Ensuring High-Quality Recycled Products • Maintaining high quality in products containing recycled content is essential, if they are to replace those made from 100% virgin material. PET bottles currently provide a higher-quality source for recycled material compared to F2F, that is mechanically recycled. Producing low-quality recycled content does not make sense from an environmental or climate perspective. In order to be able to scale up and technological advancement, there is a need for investments and research. Claiming rPET as Recycled polyester from plastic bottles • If companies were prohibited from claiming that rPET from plasic bottles is recycled, it would create challenges in both the private and public sector. Currently, recycled content is a key criterion in public tenders, where garments containing recycled fibers are favored over those made entirely from virgin fibers. This incentivizes the industry to increase the use of recycled content. • However, if PET bottle-derived recycled content cannot be classified as recycled, it becomes difficult to meet these tender requirements due to the limited availability of F2F recycled material. Without an alternative, companies may lack the incentive to incorporate any recycled material, affecting both B2C and B2B markets.
1427	9.2.5.; Recyclability & recycled content	- We strongly recommend JRC apply the definition of recycled content as reported by the ISO 14021. Narrowing down this definition to post-consumer waste is highly critical and will significantly impact the textile industry in a negative way. Post-industrial waste and pre-consumer waste must be included in the definition of recycled content. - Today, only 1% or less origins from post-consumer waste. Post-consumer waste exists but the infrastructure is not in place and supply is not existing. Pre-consumer waste is a readily available resource in closed-loop recycling systems. Disallowing its use would slow progress heavily toward circularity as fewer recycled fibers would be available for manufacturing new garments, making the business case for current recycling companies even harder. Further, there is not a traceability system from when post-consumer waste is collected until it is used in a new product

ID	Section & line	Comment
		- The key focus should be on incentivizing an efficient transition toward the objectives of the ESPR. The first step in such a transition is to incentivize the use of fibers with a lower environmental impact. In a transition phase this can include not only post-industrial, pre-consumer, and post-consumer waste, but also low impact materials like organic cotton and other low impact materials. Importantly, this should also include new innovative materials that prove to be low impact materials as well. This will incentivize the research in new and innovative materials, that do not necessarily include recycled content. Currently, Textile Exchange is developing a list of low impact materials: https://textileexchange.org/app/uploads/2023/02/Preferred-Fibers-and-Materials-Definitions-Guidance-Jan-2023.pdf). - We propose to build on the industry's current recycled fibre capacities and availability and introduce an initial performance requirement — a compulsory minimum threshold for market entry – at the global portfolio level, paired with an information requirement at the product level. Minimum requirements on a portfolio level enable faster adoption and achievement of even more ambitious content levels as companies can direct higher volume of recycled materials to the product types that can absorb recycled content the best. Minimum requirements at portfolio level would also leave room for brands to balance considerations for functionality and longevity. - We strongly recommend JRC to consult: - Textile Exchange on recycled content definitions, standards, and criteria as well as on low impact materials. - Euric on the status of Crisis in Europe's textiles sorting and recycling sector. For background information, see statement [...]
1428	9.2.5.; Recycled PET Use of PET Bottles in the Textile Industry	• There is currently a lack of data proving that the textile industry uses PET bottles that would have otherwise been utilized by the plastic bottle industry. In other words, there is no scientific evidence indicating that the plastic industry is experiencing a shortage of bottles due to the textile industry tapping into "their loop". • While there is a strong willingness of brandowners to invest in, and purchase products with made of fiber-to-fiber (F2F) recycled material, the availability of such materials remains insufficient for widespread adoption. Until the F2F market expands, textile companies require an alternative recycled source.
1429	9.2.5; 3412 – 3700	We strongly welcome the exclusion of PET/open loop recycling in the JRC analysis. It is critical to scale textile-to-textile recycling and therefore the exclusion of the open loop recycling as per EU Textile Strategy, is welcomed. PET in food packaging, particularly in the PET bottle industry, must remain in a closed loop. This ensures PET bottles are reused and recycled efficiently while also creating an incentive to develop a textile PET molecule (polyester) recycling industry. Currently, polyester made from PET bottles is cheaper than polyester made from textiles, discouraging textile-to-textile recycling.

ID	Section & line	Comment
		Establishing a textile-to-textile polyester recycling industry requires coordinated action from multiple actors. Waste collectors need sorting customers, sorters need buyers for each textile waste stream (cotton, polyester, polyamides, man-made cellulosic, and blends), and recyclers need customers at the start of the manufacturing supply chain. Additionally, financiers, policymakers, civil society, consumers, and the media must support the transition from a linear to a circular model. This transition cannot happen in a single step—it is an iterative process where each action enables further progress. Currently, none of these actors are fully prepared for a circular system. From a textile-to-textile chemical recycler's perspective, recycled polyester cannot yet compete with virgin polyester in price or quality, hence excluding PET as recycled content feedstock is an important lever. It is however important to note that feedstock for recycling must be competitively priced, despite requiring more energy to process due to textile impurities. It must also be available at scale, with consistent quality, to enable production growth. Scaling is essential for competitiveness, as production units in this industry operate at hundreds of thousands of tons annually. Recycled content requirements for textile apparel will support this transition.
1430	9.2.5; Workshop questions	1. Do you agree with the framework adopted to describe recyclability? Why? How can it be improved? • Recyclability is proposed to be based on the infrastructure for collecting, sorting, pre-treating, and recycling, rather than by the product or its design. These aspects are beyond the design of the product and thus the control of producers. • Recyclability is highly dependent on state-of-the-art technology, which is currently in a continuous state of development for textiles. It is important to ensure that technological progress is not hampered by defining a framework based on a not mature and stablish recycling ecosystem for textiles. 2. Do you agree with the framework adopted to describe recycled content? Why? How can it be improved? • No • Excluding post-industrial and pre-consumer textile waste from recycled content disregards sector realities and hinders the scaling of recycled content in the textile industry.
1431	Recyclability and recycled content; 3412	5. The document works with the assumption that recyclability will have a positive environmental impact As with durability, the working document also assumes that recycling and recyclability will have a major positive environmental impact, and above all, would lead to circularity and a reuse of resources in Europe. The working document extensively discusses recycling and recyclability but would still benefit from more exact descriptions and clarity around the

ID	Section & line	Comment
		concepts. More transparency around the following aspects seems needed, when “recycled content” or “recyclability” are addressed in the working document: • What will be the inputs and outputs, in the textile industry, of recycled feedstock? When does the working document discuss textile-to-textile (fibre-to-fibre) recycling, and when is it other source-to-textile, or textile source-to-other output recycling? This is not always transparent. • In other words, will feedstock from recycled sources that goes into textile production, come from textile waste, or from other sources (PET bottles etcetera)? Will textile waste (whether post-production, pre-consumer, or post-consumer) be used as feedstock material, and if so, for the further production of textiles, or for other uses? • Will it be possible to achieve a closed loop in Europe? • If consumers state that they are willing to buy textiles with recycled content, does this mean fibre-to-fibre recycled content, or are they just as happy if their textiles contain recycled material from other sources such as PET bottles? The above-mentioned distinctions are particularly important, given the role that circularity and recycling and recyclability play in the working document, and in the ESP, and also given the technical barriers to these that currently continue to exist and are addressed in the working document. As an example for the assumptions that appear contradictory in the working document in this regard, we note that in lines 7574 ff., it is assumed that a 30 % increase in textile waste would be equal to an increased supply in feedstock for recycled material (implying that this feedstock would then be used for the production of new fibres /textiles): “There is post-consumer waste from which material could be recycled and reintroduced in the manufacturing process of textile apparel. In Section 5.4.1, it has also been mentioned that a 30% increase in textile waste is expected for 2030-2035, so the supply of feedstock for recycled material seems guaranteed for the coming years.” This prediction fails to acknowledge the severe limitations in recyclability of textile waste, discussed shortly after, in lines 7639 ff. More textile waste does currently not mean more feedstock for recycled fibre production, and this fact should be clearly spelled out in the working document. While circularity is a very welcome concept, the working document must be open about the fact that a closed loop is currently not achievable in the textile sector (at scale), and that recycling does not offer a solution to the overconsumption / textile waste problem. Although this is clearly stated in lines 7639 ff.: “fibre to fibre recycling is a complex and hardly practiced treatment”, this limitation is ignored in other sections of the working document. The closed loop “recycling system for textile waste” depicted in the line 3433, while illustrating an idealistic vision for the textile ecosystem of the future, is not reflecting current realities. On another note, the working document also illustrates the missing economic incentives to use recycled feedstock: “The main barrier to the development of a market for recycled fibres results from the general low cost of products: from the raw material to the final product placed on the market. Textile products containing recycled fibres are more expensive than the same products made only of virgin fibres.” (lines 3550 ff.).

ID	Section & line	Comment
		Consequently, similarly to what has been mentioned about durability, the working document should openly discuss the limitations of concepts like circularity and recycling in the textiles sector at the current time, and raise the question whether mandatory content of recycled material is sensible at this stage, while also giving an outlook to potentially available technologies that may point in the direction of recycling and circularity in the future. This also underlines the importance of looking at sustainable virgin fibre sourcing, and sustainable textile processing, for the time being, while considering product design requirements that might facilitate a future fibre-to-fibre recycling.
1432	9.2.5; 3412	Technical limitation of recycled fibres in achieving same level of performance criteria as new fibres needs to be taken into consideration.
1433	9.2.5; 3412	We do not consider an exclusive focus on textile-to-textile recycling to be effective, as it reduces the available input material sources, whose availability is already limited, and entails significant investment costs. Additionally, alternative solutions remain unconsidered. This strategy could also create the impression among consumers that textile products are equivalent to disposable items such as packaging, which contradicts the goal of longevity. An exception to this is rPET from PET bottles. Due to the high purity of this raw material and the existence of established collection systems in numerous sourcing countries, it should be primarily utilized for the packaging industry. However, it should not be marketed as a sustainable alternative in the textile sector, as this would undermine the circular economy goals of the Packaging and Packaging Waste Regulation (PPWR) and hinder the scaling of new technologies. Advances in recycling technology are increasingly enabling the reuse of various material combinations into high-quality new products. The promotion and market introduction of innovative, state-of-the-art recycling technologies should be actively supported at the European level. We do not consider an exclusive focus on recycled content to be effective. The priority must be the defossilization of the material portfolio to achieve greater independence from fossil resources, which significantly contribute to climate change and are also subject to geopolitical uncertainties.

ID	Section & line	Comment
		The strategic direction must be aligned with the principles of the circular economy, ensuring overarching consistency between EU initiatives, particularly regarding the promotion of renewable carbon from biomass, recycling, and Carbon Capture and Utilization (CCU). Depending on the application and availability, all three material sources (biomass, recycling, and Carbon Capture Utilization) are justified and should be considered equally, similar to renewable energies. A sole focus on (textile) recycling cannot meet future material demands and contradicts the desired longevity of products. Natural materials such as cotton cannot be recycled in a way that retains the identical original quality, as the tearing of the raw material reduces the average fiber length. Due to their fiber structure, recycling inevitably leads to quality losses. In the long term, transformation processes from cellulosic materials to regenerated cellulose offer a potential solution. However, these processes currently do not yet achieve the necessary quality on a commercial scale, making the addition of new fiber material essential. The mechanical recycling of natural fibers generally leads to a reduction in quality. This contradicts the primary criterion of the Ecodesign Regulation (durability and longevity) and also complicates the assurance of safety regarding substances of concern (SoC) and other foreign contaminants. Against this background, a mandatory minimum recycled content for natural materials should be avoided. Since natural fibers already consist of renewable carbon, they inherently contribute to defossilization. We consider the mandatory use of recognized standards and certifications to be more important to ensure regenerative agriculture and minimize environmental impacts. The share of renewable carbon (biomass, recycling, Carbon Capture Utilization) should be gradually increased—analogous to the Packaging Regulation. A mandatory starting share of 30% appears realistic and should be progressively increased.

ID	Section & line	Comment
		The necessary traceability and certification systems must be designed realistically, taking into account economic feasibility, particularly for small and medium-sized enterprises. Initially, it would be effective to ensure the implementation of various chain-of-custody models (Identity Preserved, Segregated, Mass Balance) for synthetic materials at the granule level, along with a mandatory verification obligation throughout downstream process stages, without necessarily requiring certification at every level.
1434	9.2.5; 3412	Recycled content shall be based on a material/technology matrix (combination of material types with their associated recycling technologies). This matrix should be continuously reviewed by an expert committee. (See annex submitted via email) Information requirements should be set at product level. A definition of recycled content should include not only post-consumer but also post-industrial materials. This should be accompanied by clear information requirements on their respective proportions. Similarly, existing alternative recycling streams such as conversion of discarded PET bottles to polyester fibre should be recognised. Any information/performance requirements on substances of concern would have to be discussed with recyclers to ensure their relevance and feasibility. Furthermore, there needs to be a better alignment between EU chemical legislation, notably REACH, and the ESPR delegated act, in support of recycled content. Our company aims to act on every part of its value chain to reduce its products' environmental impact. We are working to better consider the product's end-of-life and improve recyclability right from the design phase. As recyclability of garments is a growing field, we propose for the ESPR rules to remain flexible enough to create space for innovation and experimentation.
1435	9.2.5; 3412 to 3701	Recyclability and recycled content: While we support the creation of a more circular textile economy, we believe that the challenges lie much less in the technological field than again on a systemic level: to promote recycling and to increase the recycled content of textile products, it is crucial to discourage the current oversupply and to do something about the still growing use of cheap virgin synthetic fibres, which is due to - as the JRC correctly stated - "the insufficient internalisation of externalities in the global textile supply chain [which] produces economic market barriers to recycling." As long as these barriers are not removed and there are no attractive business models for recycling, the required technologies will not be developed or scaled up to the extent and at the speed needed. As a first step, it should therefore be considered to ban fibre or material blends that are hindering recycling without offering any benefits in terms of

ID	Section & line	Comment
		e.g., durability (thus using the approach foreseen for substances of concern hindering recycling) while at the same time exempting organically produced, biodegradable natural fibres and textiles from any mandatory recycling or recycled content.
1436	9.2.5; Table 51	When it comes to Table 51 of the JRC report and the status of the different recycling techniques for textile waste, a couple of comments should be considered: • Chemical recycling for cellulosic fibres: While there are technologies with high TRL that can process pure cotton, those technologies are mainly based in Asia and are only using cotton linter (the subproduct of the ginning process) as a feedstock. These technologies are used to produce pulp to produce viscose filament and do not have capabilities to treat complex cotton waste post consumer blend or even coloured cotton rags. There are also technologies in Europe able to produce pulp from cotton waste mainly coming from cotton rags and with simple colours and some technologies in the market that can recycle colored post-consumer textile blends. However, it is important to note that, as previously discussed, these technologies primarily operate with post-industrial waste. Hence, considering the subsequent proposal regarding recycled content, which excludes post-industrial waste, the status of this recycling technique will undergo significant changes. Post-industrial waste should not be excluded of the recycled content definition Chemical recycling for synthetic fibres: While there are depolymerization techniques processing PA6 at scale, the capacity is very limited, there is just one plant available in Europe and another one in Asia. Chemical recycling of wool – rich blends: The most common recycling technique and with the lowest environmental impact to recycled wool is mechanical recycling. As per actual knowledge, chemical recycling of wool fibres are not commonly used.
1476	9.2.5; 3415-3418	Does the definition of recyclability leave open the possibility of using regenerative thinking approaches (compostability)? There are projects in which it is shown that textile waste can be used to improve certain environmental aspects, for example in the fortification of riverbanks. It should be avoided that such practices are restricted by the legislation. (ref. 'Preliminary experimental investigation into the use of recycled fibres from textile waste for the improvement of embankments' https://www.jwld.pl/files/2023-04-JWLD-24.pdf
1477	9.2.5; 3415-3418	Why should the potential of a product to be recycled for different products or even for energy, insulation, or padding not be valued? Isn't this type of use an added value compared to mere disposal?
1480	9.2.5.1; 3419-3420	If recycled materials are used for the same products or other application (as mentioned in the same page), the output needs to be specified as "recycled fibres or polymers output".
1481	9.2.5; 3419	If recycled materials are used for the same products or other application (as mentioned on page 126), the output needs to be specified as "Recycled fibres or polymers output".
1482	9.2.5; 3419- 3420	The Policy Hub calls on the JRC and the European Commission to retain the original definition of recycled content as outlined in ISO 14021 to ensure consistency and inclusivity of various waste streams.
1483	9.2.5; 3419	The post-industrial waste must be added to the recycled content sources. Indeed, this waste allows to reuse existing production scraps (when cutting etc), from pattern making and cutting.

ID	Section & line	Comment
1484	9.2.5.1; NA	There are many different fiber blends, many contributing to a product's design, properties and durability, such as looks, comfort and technical performance. We recognize that some fibre blends may be used to reduce costs. At the same time, we acknowledge the sorting and recycling industry's need for more uniform fractions of fibre-blends to ensure economically viable volumes for efficient recycling. While some blends, like cotton/polyester, can be mechanically recycled, others, such as those containing elastane or lurex, pose greater challenges in both mechanical and chemical recycling with present technology. Exploring more uniform fibre compositions will require a thorough impact assessment of how it would affect the industry, including product diversity, quality, and functionality. It is essential to involve the industry in this process to ensure a balanced approach.
1485	9.2.5.1; 3422-3459	We have identified several assumptions outlined that are not practical and would be unrealistic for the time being in our current landscape. The majority of textile-to-textile recyclers are using post-industrial waste as their feedstock today. This is due to the fact that you can access high volumes of clean feedstock. Additionally, the use of post-industrial waste also present quality benefits. More specifically, in mechanical recycling, post-industrial is often required to achieve certain quality and consistent standards, this waste stream is typically cleaner, more homogeneous and less contaminated than post-consumer waste, making it a valuable waste stream for maintaining the integrity and quality of recycled fibres. This in turn will increase the use and incorporation of recycled materials. Post-consumer recycling at this stage is limited by the availability and quality of sorting facilities, together with the complexity of the waste stream and recycling textile-to-textile at scale. Post-consumer waste infrastructure and networks are still being built, post-consumer requires more processing before it is ready for recycling, so with this infrastructure not being ready now, it is unrealistic to only focus on post-consumer challenges in collection and sorting – infrastructures of collection facilities are not in place and therefore a transition time period would be necessary for the industry to adapt to this new paradigm.
1486	9.2.5.1; 3422-3468	We propose to build on the industry's current recycled fibre capacities and availability and introduce an initial performance requirement — a compulsory minimum threshold for market entry at the global portfolio level — paired with an information requirement at the product level. While acknowledging that the Eco-design for Sustainable Products Regulation (ESPR) is mostly focused on what requirements to put in place for the product itself, there are multiple reasons why setting requirements on product level will be extremely complex. There is the number of different materials and trims, discrepancies between calculation methods, but also – and most importantly – the function of the product itself and the recyclability of a product. Many companies are already tracking their raw material or fabric consumption at portfolio level. Minimum requirements on a portfolio level would therefore enable faster adoption and achievement of even more ambitious content levels. If companies are given the freedom to operate and base

ID	Section & line	Comment
		the inclusion of recycled materials at portfolio level on considerations like availability of materials, longevity, or functionality of the garment, it would enable the companies to have a higher uptake of recycled materials, than what is possible through a product level approach. It will be easier to direct higher volume of recycled materials to the product types that can more easily absorb such high volumes. Minimum requirements at portfolio level would also leave room to balance considerations for functionality and longevity, while ambitious requirements would still work as a driver to ensure the inclusion of recycled content for the circular transition and to counter climate change. Applying a portfolio-level requirement within the ESPR is both practical and legally backed, as the implementation in the European Packaging and Packaging Waste Regulation (PPWR), Single Use Plastics Directive (SUPD), and the Batteries Regulation have taken a similar approach. We consider that the ESPR legal framework provides the flexibility and tools to introduce eco-design requirements at the portfolio level. More specifically, under the ESPR, Article 5, paragraph 3 gives the European Commission the authority to select or develop tools or methodologies necessary for setting eco-design requirements. This provision allows for flexibility in implementing performance standards and opens the door to portfolio-level recycled content requirements, as the article does not specify a restriction to product-level measures alone. Setting requirements at the portfolio level would align with the overarching goal of the ESPR, which is to reduce environmental impacts across the product lifecycle, allowing for greater flexibility and adaptability in meeting these objectives.
1487	Table 51; Status of recycling techniques for textile waste	TRL level of thermomechanical recycling of acrylic is 9 as it has been in commercial stage for 3 years. The information on Table 51 should be corrected. The final quality of the product depends on the percentage of recycled content as well as type of the recycled content. There are various feedstock types used for this methodology.
1489	1.2.5.1 (Task 4); Table 12	"Line ""Mechanical recycling"" column ""Maturity of the technique and comments"" : we would like to extend the sentence ""This usually forces the use of recycled fibres with virgin fibres"" as the actually industrial process of cotton recycling usually involves either post industrial cotton fibers or an additional composition content as virgin or recycled polyester. To generate mono-content recycled cotton yarn, even the BNAT can reach only 60% of recycled cotton content. "
1494	9.2.5; 3429	It is possible to obtain a fibre but in the vast majority of cases, today, the textile will be recycled in a closed loop or incinerated.
1495	9.2.5.1; 3433-3490	The system flow in Figure 25 is simplistic. It is implied that “Recycling” directly produces “Recycled Fibres”. Although this may be true for mechanical recycling, most recycling technologies produce outputs which are not fibres, as is clearly indicated in Table 51. There can be multiple “Post-treatment” operations required between Recycling and Fibre spinning. Often these Post-treatment options rely on global value chains.
1496	9.2.5; 3436	Textile collection raises a number of challenges:

ID	Section & line	Comment
		Managing collection points Protecting collected textiles from adverse weather conditions Territorial coverage: develop a dense, appropriate network to ensure even coverage of the territory Centralisation of collection at various locations throughout the country Massification : volumes are sometimes too small to interest recyclers Raising consumer awareness
1497	9.2.5.1; 3436-3454	Even the waste generated during spinning (e.g., damaged yarns) is recyclable and can become yarn again through regeneration processes. A similar situation applies to defective fabrics or those with dimensions too small to be used in the confection phase.
1499	9.2.5.1; 3438	With regard to the recycling of post-industrial products, open loop recycling routes are not considered, such as using spinning waste to make paper, or superabsorbent gel, or selvedges from weaving and other in general to produce panels. These forms of recycling could have better environmental/social/economic benefits than the closed loop (textile-to-textile).
1500	9.2.5.1; 3438-3445	This description of by-product management lacks a category of material due to its definition. A dangerous transformation is currently taking place in the market for wool by-products prior to the twisting process, which today have their own market but are considered virgin raw material and therefore not taken into account in existing standards (e.g., GRS). Their demand is rapidly declining, and the result is that if these products no longer have a market, they will inevitably turn into waste. Failing to consider these products as recoverable from processing risks worsening the overall impact of the sector rather than mitigating it. In terms of quantity, we are talking about approximately 10% of the wool entering the production cycle.
1503	9.2.5.1; 3441-3444	It is not considered the cases of wastes generated during spinning which, especially when twisted and dyed, have to be properly sorted a treated in order to be reintegrated as spinnable fibres. We suggest amending the sentence as follows: 'When the waste is generated during spinning, broken ends of slivers, laps and other spinning wastes can be reintegrated, either directly or previous treatment, in the manufacturing process.'
1505	9.2.5.1; 3444	The text here is misleading as it states that "when the waste is generated during the manufacturing of fabric or confectioning, manufacturers may send the waste to specialised companies for further treatments or disposal". However, earlier in the document it states that 90% of post-industrial and pre-consumer waste is incinerated. The text here reads as if most of it would be recycled or reused. We think it should be emphasised that this is not the standard yet.
1506	9.2.5.1; 3444	The text here is misleading as it states that "when the waste is generated during the manufacturing of fabric or confectioning, manufacturers may send the waste to specialised companies for further treatments or disposal". However, earlier in the document it states that 90% of post-industrial and pre-consumer waste is incinerated. The text here reads as if most of it would be recycled or reused. We think it should be emphasised that this is not the standard yet.

ID	Section & line	Comment
1507	3.2.5.1; 3444-3445	In line 575 it was said that 90% of post industrial and pre consumer waste is incinerated. The wording "manufacturers may send the waste to specialised companies for further treatments or disposal" can be read as if most post industrial and pre consumer waste is being recycled or reused ("further treatments"). It should be made clear that this is the exception at the moment and that the disposal predominates.
1508	9.2.5; 3449-3459	To ensure the success of ESPR and upcoming eco-design measures for textiles, the EU institutions must keep in mind the investment needed to deliver long-term viability of recycling of post-consumer textile waste. In this context, it is crucial to develop a strong business case for its collection and sorting. The open letter (https://zerowasteeurope.eu/library/open-letter-textile-emergency-action-plan-needed-quickly/) to the Commission by [...] (November 2024) highlights the urgent need for support in this sector. In addition to short-term measures, harmonized EPR across EU Member States could provide structural funding to local municipalities that oversee collection and sorting. Since large-scale recycling facilities require over 50,000 tonnes annually of feedstock to remain globally competitive, subsidies of waste collection and sorting and well-designed EPR mechanisms are essential to ensure that post-consumer textile waste is processed efficiently.
1509	Chapter 9; 3449-3454	This section on separate collection of post-consumer textiles is only focusing on collection from consumers and households, not collection from commercial/professional users (see line 196 of chapter2 on Definitions). Collection systems of professional users is often organised differently, f.i. take-back schemes, return logistics, business models in which supplier remains owner or resonsible for caring and end-of-use. Please also pay attention to collection for professional users.
1510	9.2.5.1; 3455-3459	The sentence that post-industrial waste “do not need to be sorted because at the generation site …. is already segregated according to similar characteristics” is simply in contrast with actual management of most of the post-industrial waste. For example, companies that cut and package are not able to sort the scraps, so they have the mix of fibers they process (on behalf of third parties, which is why they do not even have control over the fibers and compositions). We suggest amending the sentence as follows: ‘Pre-consumer waste does not need to be sorted because at the generation site, manufacturers and retailers, the waste is already segregated according to similar characteristics.’
1511	9.2.5.1; 3455	It is incorrect to state that sorting is only relevant for post-consumer waste. Also, in cases for post-industrial waste, these are waste streams that will need some form of sorting, at least on fibre composition, colour, fibre lengths etc.
1512	9.2.5; 9.2.5 3455	It is incorrect to state that sorting is only relevant for post-consumer waste. Also in cases for post-industrial waste, these are waste streams that will need some form of sorting, at least on fibre composition, colour, fibre lengths etc.
1516	9.2.5.1; 3460-3462	It should be said that sorting is mainly happening manually at the moment and that composition is not a main sorting criteria. It is usually sorted after reusability and specific products (jeans, jackets,...). Automated sorting of textiles is not happening at big scale or has to be presorted manually first.
1517	9.2.5.1; 3460-3462	It should be said that sorting is mainly happening manually at the moment and that composition is not a main sorting criteria. It is usually sorted after reusability and specific products (jeans, jackets,...). Automated sorting of textiles is not happening at a large scale or has to be presorted manually first.
1518	9.2.5.1; 3460-3474	Clarification of the word ‘accuracy’ and how sorting is done today. It is critical to note that in used garment sorting today, this is done in a two-step procedure. NIR technology will be more accurate compared to manual sorting when it comes to detecting the material surface composition, i.e., sorting for recycling. However, manual sorting is more accurate for detecting if the garment is reusable or not. Today, NIR technology is not suitable for sorting if a garment is reusable. Sorting for reuse is done manually and happens as a first preliminary sorting step.

ID	Section & line	Comment
1519	9.2.5.1; 3460	The JRC statement that "At sorting facilities, items are sorted according to their reusability, composition and colour" needs to be refined. It reflects mostly the needs of mechanical recycling, which is indeed the most commonly used technology at scale today, as rightly stressed by the JRC. However, it is also important to consider the needs of other existing recycling technologies (chemical and thermo-mechanical). For example, for chemical recycling, textile sorters do not need to go through product and fabric construction and colour sorting. They have limits on some fiber contents (elastane and PU, cotton (for thermomechanical recycling), PVC coating). Thus, what the JRC stated is not considering the specificities of sorting for chemical recycling. In order to consider the needs of the different recycling technologies, we suggest the following sorting strategy based on targeted recycling routes: At sorting facilities, items are sorted according to the Waste Hierarchy assessing their reusability, and if they are not suitable for reuse, they are sorted according to their targeted recycling route. Depending on the targeted recycling route (mechanical, chemical or thermomechanical), sorters will make their best efforts to identify different attributes that will result in a better quality of the recycled material, such as composition, fabric construction or colour. For example, in some cases in today's recycling industry: 1. Textiles which will go for mechanical recycling are sorted based on product group (e.g. Jeans, Knitwear, textile waste, wool content), as well as according to their textile product construction (mono or multilayered) and fabric construction (woven, knitted). Further fine sorting (composition and colour) as well as cleaning or mixing of materials happen at the mechanical recycling facility. 2. Textiles which will go for chemical or thermo-mechanical recycling are sorted by fibre composition regardless of their product and fabric construction. In the case of chemical recycling, the recycling processes can remove colour. In the case of thermomechanical recycling a sorting by colour can be added to produce a range of dyeable materials. However, we should consider that the sorting process explained above for the different recycling technologies may easily change in the future, and also depending on the specific setups.
1520	9.2.5; 3460-3474	Clarification of the word 'accuracy' and how sorting is done today: it is critical to note that in used garment sorting today, this is done in a two-step procedure. NIR technology will be more accurate compared to manual sorting when it comes to detecting the material surface composition, i.e. sorting for recycling. However, manual sorting is more accurate for detecting if the garment is reusable or not. Today, NIR technology is not suitable for sorting if a garment is reusable. Sorting for reuse is done manually and happens as a first preliminary sorting step.

ID	Section & line	Comment
1521	9.2.5.1; 3460-3462	It should be mentioned that sorting is mainly happening manually and that composition is not a main sorting criteria at the moment. Automated sorting of textiles is not happening at big scale or requires a manual pre sorting step. This should be made clear in the text.
1523	9.2.5.1; 3461-3468	The study overlooks the development of new sorting technologies, such as RFID. We suggest adding a sentence to reflect recent advancements: "With growing discussions around Digital Product Passports (DPP), ID-based sorting using RFID and NFC technology is being explored to improve automated sorting and recycling processes."
1524	9.2.5.1; 3462	The 2021 EuRIC handling and sorting specifications for reuse and recycling of used textiles have been taken over by the Spanish Standardization Body UNE in a dedicated Spanish Standard since 2023 (UNE 40700:2023). The CEN/TC 248/WG 39 expressed interest, in January 2025, in submitting the EuRIC and UNE handling and sorting specifications as a New Working Item Proposal to the CEN/TC 248 – which will vote in Q2 2025 (to be confirmed).
1525	Chapter 9; 3463-3466	The remark that manual sorting takes a relative long time can be questioned. Relative long to what? Automated sorting, which is suggested to be fast? I have seen manual and automated sorting in sorting facilities. Until now manual sorting is much faster than automated sorting. In future this may change. Please, be not too certain of how you value manual and automated sorting.
1526	9.2.5.1; Line 3465-3467	Automated sorting using NIR technologies is more accurate than manual sorting when it comes to fiber recognition. The exact fiber composition of mixed materials cannot be determined reliably using manual inspection. A member (sorting and recycling company) of ours can obtain purities of above 95-98% for pure fractions such as “Pure Cotton” and can determine mixed compositions with +-5% accuracy. Similar accuracies can be obtained for automated color sorting. These data are for large fractions of automatically sorted material, surpassing 2 t pr. tested fraction. Tests have been performed using homogenized recycled fibers using industry standards. Sorting for reuse is currently not feasible using automated sorting, with the exception of some specific cases such as denim jeans which are easily recognizable with AI but will require subsequent quality control to ensure the items are intact and the buttons/zippers still work. There are at least three European manufacturers of automated sorting lines which can surpass the accuracies of manual sorting.
1529	9.2.5.1; 3468-3474	It is completely standard practice to have a manual “pre-sorting” prior the automated sorting, effectively making a hybrid system. Automated sorting always requires some pre-sorting to remove: • Reuseable for re-sale. • Not recyclable textiles: such as plastic bags, mattresses, shoes and other wrongly disposed items which end up in the post-consumer textile stream. • Wet, dirt and moldy material is often removed manually, though wet textiles can be easily identified with the NIR sensor on an automated sorting line as well. They are most often removed manually prior to automated sorting to avoid contamination. • Multi-layer textiles are only suited for low value downcycling purposes with mixed fiber inputs, as they cannot be sorted by automated systems. Furthermore, these garments have higher risk of containing unwanted chemicals.
1532	9.2.5; 3469	Manual sorting is also subject to the subjectivity of the sorting criteria. Textiles judged to be in good condition at one sorting centre may not be judged to be in good condition at another.

ID	Section & line	Comment
1536	9.2.5; 3472	Infrared spectroscopy has its difficulties: on mixtures of more than 2 materials, multi-layers and dark colours
1537	9.2.5.1; 3472-3474	Experience shows that, indeed, near-infrared (NIR) technology has its limitations – however not only in multi-layered garments but also in clothing of dark colours (black, grey, etc.) and blends of more than two material types. For garments with more than two layers: adding a label, chip, or element that a NIR system or X-ray detector can easily identify might solve a significant part of the problem. Near-infrared or hyperfine spectroscopy are not fully accurate. They still require a lot of improvement in know-how and methods. To make sure the machine works well, the material/piece of clothing needs to lie flat on a surface. That way, the machine or person would need to cooperate with the spectroscopy method machine. Furthermore, similar kinds of raw materials pose problems with NIR technology. For example NIR has difficulties to distinguish Viscose and Cotton. Additionally, NIR has great difficulties in detecting elastane /spandex, especially if a textile product contains less than 5% of elastane. Between 5 and 10% of elastane in a product, there is a chance that the NIR technology might detect it, but first evidence shows that even any elastane value below 10% could not be detected reliably. Currently, it is only able to give (more or less exact) percentages of incorporation for poly-cotton blends or mono-materials. For example, […], a company who has developed a NIR Spectroscopy Solution for textile sorting, stated that its technology identifies blended materials “if the content of the minor material is bigger than 5%” (trinamix (2024) “Identify textile types at the push of a button”) It should also be noted that NIR is a non-destructive surface-only material measurement technique that is based on basic models. The continued training of the models should be significantly expanded to improve the technique. However, it is not and will not ever be a “silver bullet”. Multilayers and core spun fibres are unlikely to ever be reliably fully characterised using only this technique, regardless of improvement.
1538	9.2.5.1; Line 3475-3482	For mechanical recycling, shredding the material in pre-processing ruins the fibers, meaning they can only be used for low value downcycling purposes. Shredded textile material cannot be mechanically recycled into high-quality spinnable fibers. For re-spinning, the accessories are removed manually together with rough stitching and care labels (they are made from another material, fabric and color than the textile), before the textiles are cut using guillotines and then mechanically recycled. Automatic removal/separation of accessories and care labels without ruining the fiber quality is the biggest technological gap in the mechanical recycling value chain.
1542	9.2.5; 3478	New processes are still underdeveloped (requiring investment, funding, research, etc.). The vast majority of sorting is done manually.
1543	9.2.5.1; 3481-3482	For some recyclers, shredding is part of the recycling process and not to the pre-treatment.
1545	9.2.5.1; 3486-3489	Non-textile parts are disruptors for all recycling technologies, thermo-mechanical, mechanical and chemical. Most recyclers do also require trimmed and pre-processed feedstock.

ID	Section & line	Comment
1546	9.2.5; 3486	The JRC identifies non-textile parts as potential disruptors to the recycling of textile apparel. While IFF acknowledges that the removal of non-textile parts can complicate or increase the cost of recycling, we would like to emphasize the need for the JRC to assess the trade-offs between recycling, repair, and refurbishment. IFF firmly believes that creating long-lasting, repairable, and refurbishable products should be the priority of the ESPR Delegated Act.
1547	9.2.5; 3490	AMFEP agrees that enzymatic technique used for the recycling of polycotton fabrics only has a technology readiness level of 5. For example, it would be possible to degrade/dissolve cellulosic textiles with the enzyme cellulase. However, we would expect difficulties, due to the higher complexity of the substrate and differences in the response of cellulase to the different cellulosic fibers.
1548	9.2.5.1; 3490	Chemical recycling for synthetic fibres (mainly PES and PA6) We would like to point out that polyethersulfone can be degrated into monomers with the enzyme. There are a number of peer-reviewed articles such as "Biological degradation of synthetic polyesters—Enzymes as potential catalysts for polyester recycling" (RJ Mueller · 2006). It is TRL 9 – there are commercial products available on the market. The right-hand column should therefore be amended to signal chemical recycling for synthetic fibers may reach a technology readiness level of 9.
1549	9.2.5.1; Table 51 Line 3490 “Mechanical recycling”	A member (sorting and recycling company) has had very good results recycling cotton/polyester blends and specific compositions such as 60/40. Elastane is a huge disrupter in this value chain, as the yarns cannot be re-dyed if elastane is present, even at small amounts. There are two different approaches to mechanical recycling: • High volume, low quality: machines can take feedstock with accessories and has high throughput. Output is not suitable for spinning but is rather used in various downcycling applications. Resultingly, the output material has a low value. • Low volume, high quality requires more homogeneous input and a manual removal of accessories while running at lower throughput but results in spinnable fibers.
1550	9.2.5.1; Table 51 Line 3490 “Thermo-mechanical recycling”	Not currently used at scale for post-consumer textiles. It is not considered feasible to obtain sufficient purities/quality in feedstock from a post-consumer feedstock.
1551	9.2.5.1; Table 51 Line 3490 “Chemical recycling for cellulosic”	Most commercial plants face challenges in achieving economic feasibility at scale. Chemical recycling generally requires a lot of energy, and the removal of impurities, such as dyes from post-consumer feedstock, adds complexity and cost to the process. At present, large-scale facilities process only a limited share of post-consumer feedstock.
1552	9.2.5.1; Table 51 “Chemical recycling for synthetic fibers”	Processing PA6 from post-consumer feedstock is not yet viable, as high-content PA6 textiles are scarce and typically mixed with other fibres or used in multi-layer garments. Chemical recycling of PES remains energy-intensive and has not been commercially proven at scale yet.
1553	Table 51. Status of recycling techniques for textile waste in 2023; 3490	The industry wishes to understand the reason to include in the BAT wool-rich blends recycled with chemical recycling based on hydrochloric acid, when the wool supply chain is pressured to withdrawn from chlorinate treatment in virgin materials.
1554	9.2.4.2.3; 3490 Table 51	It should say "dissolving pulp with recycled content" instead of "regenerated cellulose as pulp".
1555	9.2.5.1; 3490 Table 51	The correct wording would be "dissolving pulp with recycled content" instead of "regenerated cellulose as pulp".
1556	9.2.5.1; 3490 Table 51	Chemical recycling for synthetic fibres: While there are depolymerization techniques processing PA6 at scale, the capacity is very limited, there is just one plant available in Europe and another one in Asia.

ID	Section & line	Comment
1557	9.2.5.1; 3490 Table 51	Chemical recycling of wool – rich blends: The most common recycling technique and with the lowest environmental impact to recycled wool is mechanical recycling. As per actual knowledge, chemical recycling of wool fibers are not commonly used.
1558	9.2.5.1; 3490 Table 51	Table 51 lacks a reference to enzymatic and biological recycling, which could represent promising solutions to improve the sustainability of the sector. Such new technologies should be explored and comparative data on their benefits compared to chemical recycling should be included.
1559	9.2.5.1; 3490 Table 51	A hybrid approach (textile-to-textile and open loop) to maximize fiber recovery is not considered in the recycling technologies analysis. This could be especially useful for products with mixed compositions.
1560	9.2.5.1; 3490 Table 51	Chemical recycling for cellulosic fibres: While there are technologies with high TRL that can process pure cotton, those technologies are mainly based in Asia and are only using cotton linter (the subproduct of the ginning process) as a feedstock. These technologies are used to produce pulp to produce viscose filament and do not have capabilities to treat complex cotton waste post-consumer blend or even coloured cotton rags. There are also technologies in Europe able to produce pulp from cotton waste mainly coming from cotton rags and with simple colours. It is important to note that, as previously discussed, these technologies primarily operate with post-industrial waste. Hence, considering the subsequent proposal regarding recycled content, which excludes post-industrial waste, the status of this recycling technique will undergo significant changes. Post-industrial waste should not be excluded of the recycled content definition (see future comments on section 9.2.5.4)
1561	9.2.5.1; 3490 Table 51	PET is missing in the table, and we propose adding the following text: We propose to add 'PET' in brackets under the 'chemical recycling for synthetic fibres (mainly PES, PA6 'and PET'). We propose to add a new sentence after 'Depolymerisation techniques processing PA6 are operational at scale. Techniques processing PES have TRL=4-7 and are expected to enter the market within less than 5 years. 'Glycolysis depolymerisation techniques have TRL=5-7'. This is to also reflect glycolysis depolymerisation techniques and their TRL in the table.
1562	9.2.5.1; 3490	We do not agree with listing pyrolysis and gasification among the recycling techniques that are eligible to consider a product recyclable. The JRC also proposes to exclude them from the scope of end-of-waste criteria for textiles in the latest draft of February 2025. The JRC proposes to include all mechanical, thermo-mechanical and chemical recycling technologies and combinations thereof under scope of end of waste for textiles, with the exception of recycling technologies that recover so-called dual-use output materials which are not exclusively used for material recycling, but also for the production of energy or fuels, such as gasification and pyrolysis processes. For more arguments against the inclusion of pyrolysis as a recycling technique to be considered under textiles, see: https://zerowasteeurope.eu/library/leaky-loop-recycling-a-technical-correction-on-the-quality-of-pyrolysis-oil-made-from-plastic-waste/
1563	9.2.5.1; 3490	To say that recycled fibres from mechanical recycling are shorter than virgin fibres is not a description of the output. The resulting output are spinnable and non spinnable fibers. The sentence of line 1363-1365 could be added: "The resulting recycled fibres are mainly used for cleaning wipes, non-woven material and insulation material, due to the fact that the most abundant resulting recycled material is represented by non-spinnable fibres."
1564	Chapter 9.2.5.1; 3490 Table 51	Status of recycling techniques for textile waste in 2023

ID	Section & line	Comment
		Solvent-based recycling is not currently included in the list of recycling techniques mentioned in Table 51, it is essential to recognize and include this technology due to its distinct advantages. Solvent-based recycling offers significant benefits, such as high-purity material recovery and the ability to handle complex feedstock with varied fiber composition. At the same time, it is crucial to differentiate solvent-based recycling from chemical recycling methods, as they operate on different principles and processes. Solvent based-recycling does not change the chemical composition and is therefore part of the diverse field of mechanical recycling technologies. Recommendation: We ask to add solvent-based recycling to Table 51: - Recycling technique: solvent based but physico-mechanical separation/ extraction but no breaking of chemical bonds - Feedstock: Textile waste; synthetic but as well separation of cotton /synthetic composites, - to some extend mixed sources - Main output: Cotton separated from synthetic fiber or synthetic fiber for spinning. Technique offers opportunities for the reduction of substances potentially hampering recycling - Disruptors: Mixed sources requiring contradicting process optimization - Maturity of the technique: Nearly mature as building on existing processes for virgin material
1565	9.2.5 Recyclability and recycled content; 3490	We propose adding the following text for Table 51: We propose to add 'PET' in brackets under the 'chemical recycling for synthetic fibres (mainly PES, PA6 'and PET'). We propose to add a new sentence after 'Depolymerisation techniques processing PA6 are operational at scale. Techniques processing PES have TRL=4-7 and are expected to enter the market within less than 5 years. 'Glycolysis depolymerisation techniques have TRL=5-7'. This is to also reflect glycolysis depolymerisation techniques and their TRL in the table.

ID	Section & line	Comment
1566	9.2.5; 3490	In chemical recycling of textiles, processes typically include a pulping phase, where used fibers are broken down into purified pulp, followed by fiber regeneration. Some companies specialize solely in pulping, supplying the intermediate material to others, while some have integrated the full process from pulping to fiber production.
1567	9.2.5.1; 3490	Table 51: we would like to highlight that the Technology Readiness Level assessment does not account for economic viability nor the ability to cope with the volumes of EU textile waste without putting too much pressure on energy and resource use. These are all elements that should be considered in the definition of recyclability.
1568	9.2.5.1; 3490	We do not agree with listing pyrolysis and gasification among the recycling techniques that are eligible to consider a product recyclable. The JRC also proposes to exclude them from the scope of end-of-waste criteria for textiles in the latest draft of February 2025. The JRC proposes to include all mechanical, thermo-mechanical and chemical recycling technologies and combinations thereof under scope of end of waste for textiles, with the exception of recycling technologies that recover so-called dual-use output materials which are not exclusively used for material recycling, but also for the production of energy or fuels, such as gasification and pyrolysis processes. For more arguments against the inclusion of pyrolysis as a recycling technique to be considered under textiles, see: https://zerowasteeurope.eu/library/leaky-loop-recycling-a-technical-correction-on-the-quality-of-pyrolysis-oil-made-from-plastic-waste/
1569	9.2.5.1; 3490	To say that recycled fibres from mechanical recycling are shorter than virgin fibres is not a description of the output. The resulting output are spinnable and non spinnable fibers. The sentence of line 1363-1365 could be added: “The resulting recycled fibres are mainly used for cleaning wipes, non-woven material and insulation material, due to the fact that the most abundant resulting recycled material is represented by non-spinnable fibres.”
1570	9.2.5.1; 3490	No material can be reused/recycled forever. Losses and degradation always take place, and thus new virgin material is always needed in the loops. Virgin renewable raw materials, which can be grown sustainably, can be supplied to loops according to principles of circular economy (CE), in a regenerative way. On the opposite, virgin mineral and fossil raw materials cannot be supplied to loops according to CE principles.
1574	9.2.5.1; 3490	Table 51 - Status of recycling techniques for textile waste in 2023. Correction in table on PES chemical recycling: the table identifies that this is at TRL 4-7, and expected to enter market within less than 5 years. This is not correct: the recyclers Jiaren and Cyclone in China are already operating at scale today. However, relying on a majority of post-industrial waste. In general, we see a risk that JRC is underestimating the time needed for recycling technologies to go from TRL 7 to TRL 9. In our experience, the last stages of technological developments are always the most time-consuming and uncertain. Even at TRL 9, it can be a far cry from industrywide relevance and adoption.
1575	9.2.5.1; 3490	Table 51 - Chemical recycling for cellulosic fibres: While there are technologies with high TRL that can process pure cotton, those technologies are mainly based in Asia and are only using cotton linter (the subproduct of the ginning process) as a feedstock. These technologies are used to produce pulp to produce viscose filament and do not have capabilities to treat complex cotton waste post consumer blend or even coloured cotton rags. There are also technologies in Europe able to produce pulp from cotton waste mainly coming from cotton rags and with simple colours. It is important to note that, as previously discussed, these technologies primarily operate with post-industrial waste. Hence, considering the subsequent proposal regarding recycled content, which excludes post-industrial waste, the status of this recycling technique will undergo significant changes. Post-industrial waste should not be excluded of the recycled content definition (see future comments on section 9.2.5.4).

ID	Section & line	Comment
1576	9.2.5.1; 3490	Table 51 - Chemical recycling for synthetic fibres: While there are depolymerization techniques processing PA6 at scale, the capacity is very limited, there is just one plant available in Europe and another one in Asia.
1577	9.2.5.1; 3490	Table 51 - Chemical recycling of wool – rich blends: The most common recycling technique and with the lowest environmental impact to recycled wool is mechanical recycling. As per actual knowledge, chemical recycling of wool fibres are not commonly used.
1578	9.2.5.1; 3490	Table 51 – mechanical recycling: • regarding the feedstock, the statement that “blends are usually not processed” is questionable. There are existing mechanical recyclers that can today process all kind of blends. • On the maturity of the technique: tearing, carding and spinning technologies are developing and pure mechanically recycled fibers will meet virgin quality in the future. • On mechanical recycling as such: a distinction should be made between downcycling, mechanical recycling of post-industrial waste and pre-consumer waste and post-consumer waste, to ensure clarity and accuracy in the interpretation of recycling data. Table 51 – chemical recycling for cellulosic fibres: • the primary output is dissolving pulp with recycled content. The term “regenerated cellulose as pulp” is not accurate in this context. A more precise term would be “pulp” or, more specifically, “dissolving pulp with recycled content”. • On the maturity of the technique: The following JRC statement “The potential degradation in length and strength of the cellulosic fibres influences the performance of the regenerated pulp” also applies to the chemical recycling of synthetic fibers. However, it is worth noting that in the field of cellulosic fibers, this applies primarily to the pulp stage. After the fibre spinning process, the resulting fiber typically matches the quality of virgin fibers.
1579	9.2.5; 3490	Table 51 - Status of recycling techniques for textile waste in 2023 Correction in table on PES chemical recycling: the table identifies that this is at TRL 4-7, and expected to enter market within less than 5 years. This is not correct: the recyclers Jiaren and Cyclone in China are already operating at scale today, however mainly relying on post-industrial waste as feedstock.
1580	9.2.5 Recyclability and recycled content; 3490	The recycling techniques implemented at scale are running primarily on PIR and not PCR. In line 3674-3677 it is stated that only PCR should be considered for recycled content. The immaturity of processes regarding PCR should be addressed and TRL levels stated in Table 51 should be stated for PCR, or otherwise clearly communicated. Further, PA6 is miss-spelled PE6 on several places in the document.
1581	9.2.5.1; 3490	The need for using virgin fibres, which can originate from sustainable certified forests, is well highlighted here in case of mechanical recycling: recycled fibres having mechanically lower properties than virgin fibres. This usually forces the use of recycled fibres with virgin fibres.

ID	Section & line	Comment
1582	9.2.5.1; 3490	Table 51: we would like to highlight that the Technology Readiness Level assessment does not account for economic viability nor the ability to cope with the volumes of EU textile waste without putting too much pressure on energy and resource use. These are all elements that should be considered in the definition of recyclability.
1583	9.2.5.1; 3490	We do not agree with listing pyrolysis and gasification among the recycling techniques that are eligible to consider a product recyclable. The JRC also proposes to exclude them from the scope of end-of-waste criteria for textiles in the latest draft of February 2025. The JRC proposes to include all mechanical, thermo-mechanical and chemical recycling technologies and combinations thereof under scope of end of waste for textiles, with the exception of recycling technologies that recover so-called dual-use output materials which are not exclusively used for material recycling, but also for the production of energy or fuels, such as gasification and pyrolysis processes. For more arguments against the inclusion of pyrolysis as a recycling technique to be considered under textiles, see: https://zerowasteeurope.eu/library/leaky-loop-recycling-a-technical-correction-on-the-quality-of-pyrolysis-oil-made-from-plastic-waste/. Hence, also for the sake of ensuring coherence between the PS and end-of-waste criteria, we strongly recommend removing pyrolysis and gasification from the recycling techniques listed in Table 51.
1587	Chapter 9; 3490	The sentence Blends are usually not sorted needs a check, since there are facilities that have no issues with recycling blends.
1588	Chapter 9; 3490	Syngas and pyrolysis oil are usually used as fuels. This means we are not dealing with recycling according to the definition as mentioned in line 3418. Remove thermo-chemical recycling via pyrolysus and gasification from table 51, since it suggests this is a recycling technique, which it is not.
1589	9.2.4.2.3 (page 129); 3490	In the context of chemical recycling for cellulosic fibers, the primary output is dissolving pulp with recycled content. The term “regenerated cellulose as pulp” is not accurate in this context. A more precise term would be “pulp” or, more specifically, “dissolving pulp with recycled content”. “The potential degradation in length and strength of the cellulosic fibers…” - This also applies to the chemical recycling of synthetic fibers. However, it is important to note that in the field of cellulosic fibers, this applies primarily to the pulp stage. After the fiber spinning process, the resulting fiber typically matches the quality of virgin fibers. "Polycotton" is a more colloquial term, whereas "polyester/cotton blended fabrics" is more precise and appropriate for formal or technical contexts.
1604	9.2.5.1; 3498 - 3545	The possibility of using hybrid recycling methods for products with different compositions should be considered.
1605	9.2.5.1; 3498-3504	For fibers such as wool, mechanical recycling produces short fibers that cannot be reused in fine products but are suitable for applications in heavier products (e.g., coats), with a distinct market outlet and consumption pattern. This is especially relevant in a market context where clothing is becoming lighter due to the widespread use of temperature-controlled environments.
1606	9.2.5.1; 3498-3500	Blends are processed in mechanical recycling, in some cases in a closed-loop process. However, it is true, that more often mechanical recyclers are processing blends in the open-loop process – in that case, the produced “mix of fibres” is used as stuffing in the furniture industry, for manufacturing insulation panels or to make merchandising products. It is however worth noting that some insulation materials, such as recycled textile insulation (e.g., cotton or wool insulation), or some textile-based

ID	Section & line	Comment
		street furniture (such as fabric-covered seats, sound-absorbing textile panels, textile composite furniture, or shade structures made mostly of textiles) could fall within the definition of “textile product” if they are at least 80% textile fibres – thus putting into question the JRC statement that the “mix of fibres (resulting from mechanical recycling of blends) have very difficult application in textile products”.
1609	9.2.5.1; 3499-3500	Blended fibers like polycotton can be mechanically recycled for nonwoven applications or re-spun by mixing with virgin fibers to achieve high-quality yarns. Polycotton blends are widely used in workwear and fashion, and automated NIR sorting can efficiently separate them by composition. Full separation into pure fractions is not necessary—fiber blends can to some extent be recycled back into the same blends. The draft report should therefore provide a more nuanced statement.
1610	9.2.5.1; 3499-3500	Blended fibres, such as polycotton, could be processed with mechanical recycling lines. According to the quality of the recycled fibres they could be used for (1) Nonwovens applications for building insulation, automotive, bedding and furniture products; (2) Spinning: Where the recycled polycotton fibres will be mixed with virgin fibres to achieve sufficient yarn quality. The statement in the draft report should therefore be changed to a more differentiated statement: ‘The reuse of mechanically recycled fibre blends depends largely on many factors as well as the intended end use of the product but is already being implemented industrially.’
1611	9.2.5.1; Table 51 and 3499-3500	Blended fibres, such as polycotton, could be processed with mechanical recycling lines. According to the quality of the recycled fibres they could be used for: • Nonwovens applications for building insulation, automotive, bedding and furniture products. • Spinning: Where the recycled polycotton fibres will be mixed with virgin fibres to achieve sufficient yarn quality. The statement in the draft report should therefore be changed to a more differentiated statement: 'The reuse of mechanically recycled fibre blends depends largely on many factors as well as the intended end use of the product but is already being implemented industrially.'
1615	9.2.5.1; 3500	That reads as if only blends would have lower mechanical properties. However, this is true for mono fibres as well. This sentence should be replaced by: mechanically recycled fibres have lower mechanical properties than virgin fibres, which limits their application and force to spin recycled fibres with virgin high-performing fibres.
1616	9.2.5.1; 3500-3502	This sentence is misleading in the contect of fibre blends only. Mechanically recycled mono-fibres have lower mechanical properties as well. We thus suggest to change the sentence to: "mechanically recycled fibers have lower mechanical properties than virgin fibres, which limits their application and force to spin recycled fibres with virgin high-performing fibres."
1617	9.2.4.2.3; 3505-3508	There is currently no chemical recycling of MMCF. However, there is chemical recycling of cotton that then becomes the final product MMCF.

ID	Section & line	Comment
		- There are currently almost no volumes of pure cotton – often contains polyamide (ppm – level). "There is currently no effective way to distinguish between MMCF and cotton (sorting). To ensure this, microscopy is required. -It should say "dissolving pulp with recycled content" instead of "regenerated cellulose as pulp".
1618	9.2.5.1; 3505-3508	There is currently no chemical recycling of MMCF, but recycling of cotton which as end product will be MMCF.
1619	9.2.5; 3505	Please consider these: Definition: The first sentence refers to the chemical recycling of MMFC fibers. We believe it should state that cellulose-based materials, such as cotton, are recycled in this stream. Therefore, it should be called 'Chemical Recycling of Cellulose-Based Textiles. Feedstock Composition: The feedstock doesn't have to be pure cotton in all cases; it could involve some impurities. Therefore, it would be more accurate to state: "Feedstock is primarily made of cotton, though it may contain some impurities." Pulp, Fiber and Yarn: Pulp isn't a material you spin into yarn, so the fiber length is insignificant. Instead, you could say: "Cellulosic pulp, which is a raw material for fiber manufacturing, could produce fibers with strength typical to MMCF with desired length." Products from chemical recycling : The products from the stream is either pulp, which is a raw material for fiber manufacturing, or fiber for yarn manufacturing. Blending Materials: When making yarns, you can always blend materials to achieve a specific feature. However, the quality of fibers from this stream should be at the same level as those derived from wood.
1620	9.2.4.2.3 (page 131); 3505-3508	Regarding feedstock derived from pure cotton, current sorting technologies are not yet capable of reliably differentiating between textiles made from cotton and those composed of regenerated cellulose fibers. The term "regenerated cellulosic pulp" should be replaced with "dissolving pulp with recycled content." Mixing recycled material with virgin material at the initial stage enhances spinnability during the fiber spinning process, ensuring that the resulting fiber achieves a quality comparable to virgin fibers. Maintaining a certain fiber quality is essential to ensure its spinnability in subsequent yarn spinning processes.

ID	Section & line	Comment
1623	9.2.5.1; 3512-3516	The assumption that “blends are still difficult to recycle” is very questionable, for the reasons explained in our previous comment on lines 3498-3500. It is worth noting that the quoted article by Bakowska (2025) seems to not be currently published. In order to support important conclusions, it is extremely important that such sources are accessible for review.
1624	9.2.5.1; 3512-3513	We would like to address the apparent misconception about the need of recyclers for only single-fibre material as their feedstock. We do not consider this claim applicable to all recycling technologies. There are many mechanical and thermochemical recyclers producing at scale and many other recyclers will be at commercial scale in the coming years, significantly increasing the blend recycling capacity in the world. Chemical and thermochemical recycling technologies that are able to handle more complex blends within post-consumer waste are in even stronger need for post-industrial waste feedstock as a stepping stone, given the need to invest capital, scale production, achieve stability and ramp-down cost for these technologies.
1625	9.2.5; 3512-3516	It is a misconception that recyclers can only recycle single fiber material as their feedstock. This is not applicable to and does not account for all recycling technologies, especially advanced recycling technologies. Many mechanical and thermochemical recyclers can handle blends and more technologies in the chemical recycling space are scaling in the next 2-3 years. Chemical recycling technologies like Circ are able to recycle polycotton blended textiles, and valorize both the cellulosic and polyester components of the blended feedstock. This technology will be commercially ready in the next 2-3 years. Since 60-70% of textiles placed on the market are polycotton blends, it is important to acknowledge new technologies that are able to handle these materials through a chemical recycling process that is able to valorize both the cellulosic and polyester materials in the textile waste.
1626	Chapter 9; 3512-3516	It is possible to recycle blends. Look for instance at https://wornagain.co.uk/technology/. There are more companies offering these kinds of technologies. Rephrase please.
1628	Chapter 9.2.5.1 & reference to Chapter 9.2.5.3; 3515, 3556 & 3635	Factors effecting "the economy of scale for the establishment of a profitable recycling system" Technical limitations in recycling techniques is one of the primary challenges to "the establishment of a profitable recycling system" (Line 3554-3555). BAT of Recyclability technologies identifies, that single fiber rich PA6 & other mono-materials textile apparel are recyclable with current technologies (Line 3635 to 3639). However, the recent market indicates "48-60% of the fibers are made with blends of natural and chemical fibers." (Line 3514 - 3515). This shows, that the market does not correspond to current BAT recycling technologies for textiles recycling. New technologies need to evolve and need to be considered by an appropriate framework.

ID	Section & line	Comment
		Rationale: With the current technical limitation, recycling only post consumer textile waste, brings limitations to economies of scale for economic actors in the recycling system Recommendations: Inclusion of Post Industrial, Pre Consumer and Post consumer textile waste within the definition of recycled content (Line 3676-3677)
1629	Chapter 9.2.5.4 & reference to Table 51, Chapter 9.2.5.3, Chapter 9.2.5.1 & External Tricorp & HAVE-P case study by ECAP; 3654 & additional reference to 3515 & 3636	Scope of Recycled content and categorization of Product aspects recyclability and recycled content "Only if recyclable textile products are placed on the market, there will be availability of recycled fibres to be used in new items" (Line 3654 - 3655) This sentence presents a contradiction in itself: As highlighted in 3514- 3515, 48-60% of textiles placed in EU markets are blend of natural and synthetic fibers. Moreover, mechanical recycling of cotton and chemical recycling of cellulosic fibers lead to fibers of lower quality or fiber lengths (Table 51) and need to be mixed often with other types of materials or virgin grade to keep functionality and to preserve durability (to reduce pilling, see Tricorp & HAVE-P case study from ECAP- European clothing action plan). Therefore, (multi-fiber) blends are essential for textiles with recycled content which are produced by current technologies (BAT ready). Since BAT of recyclability indicates that only mono-material fibers & PA6 rich fibers are recyclable via current techniques (Inference from Line 3636-3639), to have recycled content means the textile apparel is often not recyclable, and to be recyclable, the product may have no recycled content. Rationale: Blends are currently hard to recycle & to include recycled content in most cases blends are essential. But at the same time, 48-60% of EU market comprises of textiles with natural and synthetic fiber blends.

ID	Section & line	Comment
		Recommendation: 1. Separation of the product aspects recyclability and recycled content. 2. Within product aspect: Recycled content include open loop recycling and Pre Consumer and Post Industrial textile waste in the definition of recycled content. 3. Supporting and allowing growth, innovation and development in BNAT Recycling technologies (referred in Table 51 with solvent based technology added), which would ultimately allow recycling of mixed fibers that may contain recycled content and thereby break the deadlock between recyclability and recycled content. To promote such growth, development and innovation we suggest the inclusion of cross industry linkages (open loop) for recycled content and to incentives for post consumer textile waste.
1630	9.2.4.2.3 (page 131); 3516	The cited article by Bakowska (2025) is currently unpublished. To support important statements and conclusions, it is essential that such sources be accessible for review.
1631	9.2.5.1; 3517-3520	Open-loop recycling. We understand the approach in the EU Textile Strategy to favour textile to textile recycled materials over open-loop PET recycling. However, at present, recycled PET bottles have an important role to play – it is the only polyester recycling option available at scale, allowing the recycling industry to mature and develop other solutions at sufficient scale. There are open-loop recycling solutions using waste stream inputs that have little other avenues for use e.g., non-FCM grade PET, therefore there is a role for these waste streams to be recycled in the textile industry. Finally, although not a closed-loop solution, recycled PET avoids use of virgin synthetic materials and can therefore help companies' efforts to reduce their CO2 emissions overall.
1632	9.2.5.1; 3517	The JRC doesn't consider polyester sourced from recycled PET as recycled content. We strongly disagree with this decision. While we agree that post-consumer fiber-to-fiber recycling is the ultimate goal, recycled PET bottles have an important role to play as an intermediary technology, allowing the recycling industry to mature and develop other solutions at sufficient scale.
1635	9.2.5.1; 3518	While the representation is very low, the figures have to be detailed as for example, the majority of the actual recycled PA 6 available on the market is coming from post-industrial yarn waste and from a thermomechanical process, the figure of the 2% might not correspond to the chemical depolymerization technique. Same for the 7% of recycled wool, that figure might include mechanical recycling of the wool.
1637	9.2.5.1; 3518	While the representation is very low, the figures have to be detailed as for example, the majority of the actual recycled PA 6 available on the market is coming from post-industrial yarn waste and from a thermomechanical process, the figure of the 2% might not correspond to the chemical depolymerization technique. Same for the 7% of recycled wool, that figure might include mechanical recycling of the wool.
1644	9.2.5.1; 3525	The JRC's conclusion that post-industrial waste does not need to be sorted, because they are already managed by the manufacturers, does not align with the industry reality. Post-industrial waste is generally directed to waste collectors that collect textile waste with other non-textile waste streams. Those collectors and aggregators then first separate textile from non-textile parts, before sorting according to demand (i.e.composition, color, etc). The sorting needs can differ from one recycling technology to another. Even waste that is directly received from the manufacturers may need sorting due

ID	Section & line	Comment
		to lack of information in material content or lack of proper management of different waste streams being generated in the same facility. Recycling technologies are often material-specific technologies, and this lack of understanding of the waste material content results in an additional sorting process, which could be eliminated.
1645	9.2.5; 3525	JRC makes an assumption that post-industrial waste does not need sorting, this is not the reality, manufacturers do not sort waste at source but rather direct it to waste collectors and aggregators who sort out non-textile from textiles, and then further sort the textiles based on demand (composition, color, etc). This is not a revenue generating business for manufacturers. And brands working with manufacturers do not dictate what manufacturers do with this waste. Most manufacturers pay for collectors to come and collect all the waste in one go, these players then segregate based on use case and materials. Sorting is still required for post-industrial waste. This is an established business and infrastructure in manufacturing countries around the world.
1646	9.2.5.1; 3528-3529	This statement is not correct. Post-industrial waste can be non-textile and with coatings (selvedges, scraps and deadstock), and it is not 100% sorted. There can be unwanted material that require pre-treatment also for post-industrial waste.
1647	9.2.5.1; 3528-3530	They are not necessarily free of coatings, nor are they 100% sorted. There is unwanted material here too.
1648	9.2.5.1; 3528-3530	The assumption that “post-industrial waste has no non-textile parts and is often free of coatings” is misleading. Even in post-industrial waste, there can be synthetic fibers, trims, labels, zippers, buttons, and sewing threads that might not be compatible with all recycling processes. Post-industrial waste is not necessarily “free of coatings”. In this context, and depending on the recycling technique, pre-treatment may still be necessary for post-industrial waste, in order to remove potential contaminants and break down coatings, before further processing. While some types of post-industrial textile waste (like pure cotton or polyester offcuts) may be easier to recycle, it's not universally free of coatings or non-textile parts.
1649	9.2.5.1 (page 131); 3528-3530	Post-industrial waste is not necessarily “free of coatings,” but it can be sorted with significantly better quality than post-consumer waste. Particularly when large quantities are required, it is very difficult, if not impossible, to obtain well-sorted used textiles (post-consumer waste) in such volumes.
1651	9.2.5.2; 3590-3605	Post-industrial waste (fibers, fabric scraps, damaged fabrics) also meets these five points, but in point 3604, the term "textile apparel" is used instead of "textile product."
1652	9.2.5.1; 3531-3536	Reason (3) overlooks key factors—automated fibre composition analysis is feasible. The main challenges lie in limited demand for recycled fibres and a fragmented global textile value chain, where brands seeking recycled materials often lack direct connections with spinners.
1653	9.2.5.1; 3531-3545	The use of post-industrial waste offers several advantages, as it avoids the three critical issues mentioned. Most of this waste is easily identifiable (e.g. pure wool, pure cotton, blends), comes from a traceable production chain, and can be certified through chemical analysis.
1654	9.2.5.1; 3531-3536	The statement that “post-consumer waste has largely not been used as feedstock until now because its treatment is more challenging and expensive than the other waste types” should be put into context: while this may be true for textile-to-textile recycling, it is worth stressing that post-consumer textile waste has been largely used in other industries, such as the automotive industry, isolation materials and today’s cities’ furniture or textile composite. The assumption that with post-consumer waste “fibres are damaged, which would result in less performing mechanically recycled fibres” is questionable and oversimplified. While fibre damage can occur in post-consumer waste, it is not a universal truth. The extent of fibre degradation depends on multiple factors (wear, washing, fibre type) and modern recycling technologies can often compensate for this, by blending with virgin fibers to maintain strength.

ID	Section & line	Comment
		Despite advancements in sorting and recycling technologies, textile chemical recyclers continue to face significant challenges due to the highly variable composition of feedstock. Current automatic sorting technologies have not yet reached the level of precision required to provide chemical recyclers with sufficiently refined output. This specificity is essential, as recyclers must navigate complex material compositions containing numerous non-processable elements, such as incompatible fibers, dyes, and auxiliaries—each of which can have a significant impact on both chemical recycling and waste treatment processes.
1655	Chapter 9; 3531-3536	This is true for post-consumer waste from consumers but can be different for waste from professional users, because it is collected in a different way, often is not mixed like waste from consumers.
1659	9.2.5.1; 3532-3535	Please add an additional point: (4) are not available at a constant mass flow and composition.
1660	9.2.5.1; 3532-3535	Another reason for the challenging and expensive treatment of post-consumer waste is that there is no availability of a constant flow of waste textiles at a certain composition. This makes the set up of a recycling process that may need a certain composition of input materials challenging.
1664	9.2.5.1; 3535-3536	Since there is no established market and standards, it is not possible to say anything about the prices. Wipes are today a very well-paid product for sorters for post-consumer textile waste.
1665	9.2.5.1; 3535 - 3536	This is misleading, it only refers to the feedstock, not to the whole recycling process. Maybe it could be changed to “are currently the cheapest feedstock option”.
1666	9.2.5.1; 3535-3536	This is misleading, it only refers to the feedstock, not to the whole recycling process. Maybe it could be changed to “are currently the cheapest feedstock option”.
1667	9.2.5.1; 3535-3536	We challenge the notion that post-industrial waste is the cheapest option for recycled material. While post industrial waste has been traded for decades, the distinction between post-consumer and post-industrial waste lies not only in price, but in the latter's competitiveness in the market. Essentially, like post-consumer waste, post-industrial still poses a significant waste problem which needs to be addressed coherently. In fact, if post-industrial waste were to be excluded, recyclers' investment in facilities processing post-industrial waste in the EU would be disincentivized and those investments would most likely flow to locations outside of the EU.
1668	9.2.5; 3535-3536	Post-industrial is not always cheaper, as mentioned, post-industrial recycling is an established market, so it is competitive. It is important to clarify that post-consumer is more challenging, sometimes adding more cost, as there is a higher need to process and treat the waste before it is prepared for recycling.
1669	9.2.5.1 (page 131); 3535-3536	Despite advancements in sorting and recycling technologies, textile chemical recyclers continue to face significant challenges due to the highly variable composition of feedstock. Current automatic sorting technologies have not yet reached the level of precision required to provide chemical recyclers with sufficiently refined output. This specificity is essential, as recyclers must navigate complex material compositions containing numerous non-processable elements, such as incompatible fibers, dyes, and auxiliaries—each of which can have a significant impact on both chemical recycling and waste treatment processes. This challenge stands in stark contrast to conventional production using raw materials like wood, where non-utilizable components remain consistent and predictable. Additionally, wood as a raw material is significantly lower in price compared to the cellulose-dominant textile waste suitable for chemical recycling.

ID	Section & line	Comment
		Furthermore, the recycling process is technologically more demanding than a 'standard' pulp process using wood. This is because textiles require a specialized pre-shredding step (to prevent entanglement and to ensure proper chemical accessibility of the pulp), dyes are more difficult to remove compared to lignin and other wood components, and all impurities must be separated—necessitating additional process steps. These extra steps, in turn, require energy, lead to yield losses, generate rejects that must be managed, and, of course, demand CAPEX investments. Based on these factors, recycling is undoubtedly more expensive.
1670	9.2.5.1; 3537-3539	Chain of custody ensures that the recycled content is traced throughout the production chain and can guarantee the accuracy of the claim. GRS/RCS have chain of custody already in place, managed at a documentary level and audited by external bodies. We recommend that the legislation reflects such established practices but avoids creating a monopoly for the certification. We recommend the use of controlled blending, enabling the control of the quantities of recycled contents fed into the process and better visibility on the actual amount of recycled content contained in the final product placed on the market (as required by the ESPR). This system ensures a much higher accuracy than the mass balance system. The mass balance approach does not guarantee that a product labelled with x% recycled content effectively contains x% of recycled content, which may lead to 'greenwashing' practices and confusion in the consumer. We recommend allowing the use of mass balance approach in a transition phase, as it is used by some companies, and that would allow for a smooth transition to controlled blending.
1671	Section 9.2.5.4 How to assess recycled content; 3537 in relation to lines 1001, 1005, 1009	Since the chemical difference between recycled PET and virgin PET can be difficult to make, the recycled content must be traceable from the point of collection to the final recycled material. It should rely on a trustworthy, independent third-party certification of the chain of custody, such as Textile Exchange's RCS or GRS. It is important to prescribe what constitutes trustworthy, independent verification tools and apply the methodology to certify recycled content also to voluntary claims on textile apparel products. We support the fact, that the recycled content indicated on the labels actually corresponds to the percentage included in the final product. We support the use of controlled blending for the downstream value chain to ensure that a product labelled with w% recycled content effectively contains x% of recycled content. We support ISO Type I environmental labels I, known as Ecolabels and ISO Type III environmental labels, known Environmental Declarations. We highlight that ISO Type II environmental labels, known as Self-declared Environmental Claims can be subject to inaccurate information and does not support this inclusion.

ID	Section & line	Comment
1672	Chapter 9; 3537-3539	Saxion University (Jens Oehlerich) has developed a 3-step laboraty test for determining recycled or virgin origin. It was presented at Circular Textile Days 2023. Even pre or post-consumer. If you need contact details, please contact me.
1674	9.2.5.1; 3538-3539	Saxion University of Applied Sciences (based in the Netherlands), together with i.a. the Dutch Ministry of Defence and textile companies, is working on an analysis method to determine the presence, quantity and origin of recycled fibers (post-consumer) in textile products, as part of the RECAN III project. More information here: https://techforfuture.nl/project/2202/
1675	9.2.5.; 3538-3539	We advocate for not relying solely on Chain of Custody (CoC) systems as the sole verification method but only in combination with other systems, such as mass balance, as this is crucial to ensure effective recycled content verification. Mass balance approaches are widely accepted across different industries: For instance, in the bio-based plastic sector (International Sustainability & Carbon Certification PLUS certification, https://www.iscc-system.org/certification/chain-of-custody/mass-balance/), the renewable energy sector (Guarantees of Origin, also recognized in the Renewable Energy Directive) and the paper and pulp industry (FSC, https://uk.fsc.org/what-is-fsc/recycled-materials). In fact, the paper recycling industry, where recycled fibre is mixed with virgin pulp, also uses mass balance methods to account for recycled content in a verifiable manner. Similarly, there has been application of mass balance approaches in the textile sector, for instance by Oeko-Tex, and acknowledged and accepted by various organisations, such as for example the Ellen MacArthur Foundation (https://www.iscc-system.org/wp-content/uploads/2022/04/Mass-Balance-White-Paper.pdf), the European Bioplastics Association and the International Sustainability & Carbon Certification(https://www.european-bioplastics.org/mass-balance-approach-for-the-use-of-biobased-feedstock-for-polymer-production/). Allowing various verification methods is crucial to enable recyclers to choose between different mass balance approaches, based on their specific process requirements, inputs and outputs. This would enable the necessary flexibility to comply with certification standards while maintaining operational efficiency, and ensure that the match between recycled content inputs and outputs is verifiable, thus preventing any misleading claims about sustainability. In addition to the mass balance approach, emerging digital technologies offer promising solutions for verifying recycled content. Various industries are actively exploring and implementing advanced digital tracking and verification systems. As these technologies continue to evolve, they present increasingly sophisticated and reliable methods for authenticating the presence and proportion of recycled materials in products. These digital innovations are expected to play a crucial role in enhancing transparency and accountability in recycling processes across different sectors in the near future.
1676	9.2.5; 3538 - 3539	We advocate for Chain of Custody systems for verifying and tracking the source of origin, however, we would advocate for not relying only on CoC systems. CoC systems must exist in combination with other systems, specifically, we would advocate for mass balance approaches to ensure recycled content verification. Mass balance approaches are widely accepted and used across other industries and also within the textile industry. For instance, in the bio-based

ID	Section & line	Comment
		plastic sector (International Sustainability & Carbon Certification PLUS certification), the renewable energy sector (Guarantees of Origin, also recognized in the Renewable Energy Directive) and the paper and pulp industry (FSC). In fact, the paper recycling industry, where recycled fibre is mixed with virgin pulp, also uses mass balance methods to account for recycled content in a verifiable manner. Similarly, there has been application of mass balance approaches in the textile sector, for instance by Oeko-Tex, and acknowledged and accepted by various organisations, such as for example the Ellen MacArthur Foundation, the European Bioplastics Association and the International Sustainability & Carbon Certification. It is important to allow for different mass balance approaches, with different calculation methodologies, this will allow recyclers to choose the appropriate approach for their specific processes, inputs and outputs.
1677	Chapter 9.2.5.1; 3540-3545	Opposite needs of designers and recyclers The latest innovations in chemical recycling techniques such as depolymerization, solvent based recycling, pyrolysis & gasification are not limited by fiber composition and can recycle multi fiber material with significant mass recovery (Solis et al. (2024)). Therefore these methods have to some extend resolved the problem of "opposite needs" (Line 3541). Innovation in such technology would also facilitate recycling of recycled materials multiple times, enabling the achievement of the goals of a circular economy. Pursuing mono-materials would disincentivize investments, growth and developments of BNAT recycling technologies (Table 51) that can take multi material waste as feedstock., while also: 1. Not solving the paradox of recycled content and recyclability, where textiles with recycled content, that often need multiple materials for preservation of durability and functional attributes, cannot be recycled. 2. Be infeasible on a macro economic level where 48-60% of textiles placed in EU markets are blend of natural and chemical fibers (Line 3514-3515). 3. Not meeting consumer preferences "the huge variation in consumer preference is not easily satisfied by a single material (Zhang et al., 2022)" (Line 7695-7696). Moreover the cost of such mono material that equal the functional attributes of multi material fibers is unknown, "the cost of such products should not be inhibitive." (Zhang et al., - Advancing life cycle sustainability of textiles through technological innovations).

ID	Section & line	Comment
		Recommendation: 1. Supporting growth, innovation & development in BNAT recycling technologies by allowing for a wider definition of recycled content (Line 3676-3677), allowing them, "economic actors in the recycling system", freedom to innovate and possibly develop efficient cross industry open loop recycling linkages. 2. Not limiting the scope of the future of textiles and recyclability to just mono-material textile apparel. 3. Inclusion of pre consumer, post industrial and cross industry sources within the scope of recycled content (Line 3676-3677) to facilitate steady growth and investment in recycling technologies.
1678	9.2.5.1; 3543-3545	It is incorrect to say that recyclers only want mono-materials. Blends with no more than two different fibers can, to some extent, be mechanically recycled today. Technological advancements will likely enable the recycling of more complex blends, but experience with current mechanical recycling technologies shows that more uniform fiber compositions result in higher-quality recycled fibers.
1681	9.2.5.1; 3544-3545	Recyclers are able to separate certain fibres. It is not accurate to state that recyclers can only process mono-fibres waste textiles. While having mono-fibre textiles with minimal disruptors makes recycling easier, modern recycling techniques can already handle blends.
1682	Chapter 9; 3546	MIS-analysis of Utrecht University which analysis barriers to uptake of recycling techniques and defines the problem as a waiting game. https://www.uu.nl/sites/default/files/Presentation%20circular%20fashion%20industry.pdf
1683	9.2.5 Recyclability and recycled content; 3547	We agree with the following sentence: 'recycling is not adequately in place and that the lack of a strong business case for recycling has negative effects on the business case of other economic actors in the recycling system, such as collectors and sorters (Huygens et al., 2023)' Collectors and sorters are facing a structural crisis due to the increased amount of textile waste collected, the ban on textile waste due to the Waste Shipment Regulation, and tough competition in the second-hand markets (e.g., in Africa, second-hand goods exported from Europe are competing with Asian exports). However, mandating recyclability and recycled content on textile apparel in ESPR will also help collectors and sorters.
1685	Chapter 9.2.5.1; 3550 - 3560 & reference to 3674-3677	Factors effecting "the economy of scale for the establishment of a profitable recycling system"

ID	Section & line	Comment
		A key factor effecting the establishment of economies of scale for recyclers is the lack of availability of consistent quality feedstock in quantities. Moreover if post industrial & pre consumer is not identified as recycled content, "economic actors in recycling system" would not be incentivized by retailers to recycle such materials, negatively effecting the business case of economic actors in the recycling system. Narrowing down the definition of Recycled content to post consumer textile waste would have "negative effects" on the "business case for recycling". One of the main bottleneck faced by recyclers, to establish large scale operations utilizing economies of scale, is the availability of consistent quantity of quality feedstock, such a narrowed down(only post consumer recycled content - Line 3677) definition would make it even harder for economic actors in the recycling system, to invest in larger, higher volume operations, which benefit from economics of scale, since a consistent availability of quality feedstock supply would then be more uncertain, given the narrow scope of the recycled content definition (Line 3676-3677). Rationale: Limited availability of feedstock for recycling is a hindrance to setting up of large scale operations utilizing economies of scale. Recommendation: 1. Inclusion of Post Industrial, Pre Consumer and Post consumer textile waste within the definition of recycled content (Line 3676-3677). 2. Inclusion of cross industry linkages (open loop) within the definition of Recycled content (Line 3676-3677) Both these factors will facilitate the availability of quality feedstock that can be recycled even with the "technical limitations in recycled techniques - Line 3556".
1686	9.2.5 Recyclability and recycled; 3550	We would like to highlight that the cost due to the recycled content in the final product is very low compared to the total price of the product.
1687	9.2.5.1; 3550-3560	Correction: The section states that the main barrier to the development of a market for recycled fibres results from the general low cost of products: from the raw material to the final product placed on the market. This is incorrect. The main barriers for realising a recycling economy today are the cost difference between virgin materials and recycled materials, continued challenges in quality comparing virgin and recycled materials and the still lacking infrastructure for collection and sorting of textile waste on a global level. In addition, it is critical to note that post-industrial waste is a critical lever to realise the recycling economy. This waste stream is needed to test new innovations in recycling technology and its exclusion can potentially push the inflection point further. The assumption that absence of a legislative

ID	Section & line	Comment
		framework on certain categories of waste (post-industrial in this case) would be exploited, is not a valid argument. Fabric manufacturing comes with a cost for manufactures and brands that is inclusive of inputs, wages, utilities, compliance etc and companies have a strong interest in minimising these costs. There may be inefficiencies in the system, but that does mean this would 'incentivise' generation of waste. Therefore, we strongly recommend including post-industrial waste in the definition of recycled content, at least in a transition period until recycling of post-consumer waste is up to par, as a critical leaver for scaling textile to textile recycling technologies. Not accepting post-industrial waste towards recycled content requirements would make it significantly more challenging for recyclers to scale today.
1688	9.2.5; 3550-3560	Correction: The section states that the main barrier to the development of a market for recycled fibres results from the general low cost of products: from the raw material to the final product placed on the market. This is incorrect. The main barrier for realising a recycling economy today is the cost difference between virgin materials and recycled materials, continued challenges in quality comparing virgin and recycled materials and the still lacking infrastructure for collection and sorting of textile waste on a global level. In addition, it is critical to note that post industrial waste is a critical lever to realise the recycling economy. This waste stream is needed for testing newer innovations in recycling and its exclusion can potentially push the inflection point further. The assumption that absence of a legislative framework on certain categories of waste, post-industrial in this case, that this gap would be exploited, is not a valid argument. Fabric manufacturing comes with a cost for manufactures and brands that is inclusive of inputs, wages, utilities, compliance etc and companies have a strong interest in minimising these costs. There may be inefficiencies in the system, but that does mean this would 'incentivise' generation of waste. Therefore, we strongly recommend including post-industrial waste in the definition of recycled content, at least in a transition period until recycling of post-consumer waste is up to par, as a critical leaver for scaling textile to textile recycling technologies. Not accepting post-industrial waste towards recycled content requirements would make it significantly more challenging for recyclers to scale today.
1693	9.2.5 Recyclability and recycled content; 3552	We would like to add the following to the main barriers: - the lack of a proper EPR scheme to handle end-of-life products, - a non-level playing field in terms of social and environmental rules, and - the application of multiplication factors to the cost of each step of the value chain. ESPR requirements on all textile apparel products placed on the EU market should help even out the playing field, prevent non-recyclable textile products from entering the market etc.
1694	9.2.5.1; 3552	We suggest that the JRC should list some reasons for textile products containing recycled fibres being more expensive than the same products made only of virgin fibre. For example: high effort of sorting, that is very expensive due to manual labour.
1695	9.2.5.1; 3552	It would be helpful to list some reasons for textile products containing recycled fibres being more expensive than the same products made only of virgin fibres. For example: high effort of sorting, that is very expensive due to manual labour

ID	Section & line	Comment
1696	Section 9.2.5.4 How to assess recycled content; Line 3650, page 134	Recycled materials only contribute positively to sustainability if product quality can be maintained. A recycled product that lasts half as long will have higher negative impact, so we should ensure that quality standards (e.g. ESPR) are implemented in conjunction with recycled content requirements. Recycled materials from chemical recycling can be of comparable and/or better quality than virgin materials.
1697	9.2.5.1; 3560	We also believe that the economy of scale of certain recycling technologies is challenged by the high amount of energy and resources needed.
1698	9.2.5.1; 3560	We also believe that the economy of scale of certain recycling technologies is challenged by the high amount of energy and resources needed.
1699	. 9.2.5.1; 3565-3567	Concerning the need for tracking the origin of the recycled fibres: Internationally recognised schemes such as PEFC and FSC already have a chain-of-custody in place providing a good standpoint for this.
1700	9.2.5.1; 3565-3567	Textile Exchange Transaction Certificates allow for tracking of recycled content. Based on where the textile recycling industry is today, we believe that it is necessary to rely on the existing verification systems, e.g. Global Recycled Standard" (GRS) and Recycled Claim Standard" (RCS). These are systems that are already implemented, credible and their development was based on extensive cross-industry experience.
1701	9.2.5; 3565 - 3567	Addition: Such as the Textile Exchange standards allowing for tracking of recycled content. We believe that it is necessary with where the textile recycling industry is at today, to rely on existing verification systems (e.g Global Recycled Standard" (GRS) and Recycled Claim Standard" (RCS)), as these are systems that are in place today, credible and developed based on extensive cross-industry input and expertise.
1702	9.2.5.1; 3565-3567	Need for tracking the origin of the recycled fibres: PEFC and FSC already have their chain-of-custody in place providing a good standpoint for this
1706	9.2.5.1.; 3573-3631	This paragraph refers to mutually dependent legislative initiatives, some of which do not yet exist. The way the presentation is structured and the reference to individual EU member states create an image that does not accurately reflect reality, nor does it comprehensively represent the positions of other member states. This is a crucial shortcoming in the overall assessment. The definition of the recyclability of textiles must be more clearly differentiated, as the current approach suggests that fibre-to-fibre recycling is not only possible but also desirable. However, this assumption is not consistently questioned or critically examined. The differentiation of waste streams is fundamental, and their technical feasibility and economic considerations must be explored further. The dimensions of this issue are more complex than currently presented, potentially leading to misleading conclusions. A precise differentiation of textile waste based on its origin, waste characteristics, and volume availability is crucial for targeted recycling efforts and assessing the quality of the resulting recyclates. Equally important is the availability of recyclates, the costs of processing them in various locations, and their actual integration into production. These factors are instrumental in evaluating the feasibility of recyclate origins. The regional origin of textile waste, as well as its stage within the supply chain, influences the economic viability of recycling and impacts ecological and technological feasibility. Textile waste generally originates from pre-industrial waste, which arises from extracting and processing raw materials such as cotton or wool. Surplus fibres, a by-product of production, are typically reintegrated into the fibre cycle due to their purity. These materials could be classified as recyclates, but they are difficult to detect in the final product. Post-industrial waste is generated during the production process, arising from selvedges, fabric offcuts, or surpluses. It is generally clean and easier to separate due to its uniform composition, making it simpler to recycle. However, in the EU, this type of waste is available only in small quantities, as most clothing production occurs abroad. Some production sites, including those in Turkey, India, and Bangladesh, have already implemented recycling pathways, where this waste is reintroduced into the spinning process as recyclates without being explicitly labeled. Post-consumer waste includes

ID	Section & line	Comment
		textiles worn or used within the EU and then donated or discarded, such as used clothing, shoes, and home textiles. These items typically consist of complex material mixtures, making recycling difficult. Additionally, there is a lack of economic infrastructure for systematic collection and sorting, meaning only a small fraction is converted into recyclates. This presents a significant challenge to achieving the EU's circular economy targets. Pre-consumer waste encompasses materials and products discarded before reaching consumers, such as defective items or surpluses, often overlapping with post-consumer waste. Within the EU, viable economic solutions for recycling these textiles are scarce. Pre-consumer waste is thus another difficult-to-access recyclate source, further complicated by the widespread practice of individually foiling products for transport protection, which makes unpacking and recycling more complex. This differentiation is essential, as not all waste streams are equally accessible or economically viable for recycling into secondary raw materials. The goal of reintegrating raw materials from every processing stage into end products as secondary raw materials is particularly challenging in the EU. There is a lack of infrastructure for collecting and sorting used textiles, while recycling pre- and post-consumer waste in Europe is costly and time-intensive due to its composition. As a result, alternative methods for obtaining textile waste as a secondary raw material are gaining importance. One such alternative is rPET types entering the market, derived through chemical recycling processes such as glycolysis, hydrolysis, or enzyme treatments, as well as through physical processes using specialized PET solvents. Although these recyclates account for only about two percent of the rPET market, their share is increasing. However, their classification based on macromolecular properties remains unclear, and more research is needed to evaluate them both qualitatively and quantitatively. Another potential PET source as a secondary raw material is recyclates from industries outside the textile sector, such as rPET granulate from bottle production. This expands the origins of recycled textiles beyond textile sources and must be assessed separately. Non-textile recyclate sources are also relevant to recycled textile production. Existing testing methods, including chemical, physical, and optical analyses, provide some potential for identifying recycled mate
1709	9.2.5.4; 3576-3578	The sentence is not correct because all textile wastes classified (e.g. EWC 040209, EWC 040221, EWC 040222, ecc.) must be managed, in Europe, according to requirements of the Waste Framework Directive. We suggest amending the text as follows: Post-industrial textile waste is subject to the Waste Framework Directive.
1711	9.2.5; 3579	Correction: the ESPR prohibits the destruction of unsold 'discarded' textile products, not any unsold product.
1713	9.2.5.1; 3581	Waste generated at the manufacturing stage is considered post-industrial waste and not pre-consumer textile waste. The definition of "pre-consumer waste" does not align with the ongoing work by the JRC End-of-Waste team. According to the framework in development, pre-consumer waste is defined as waste generated at the retail level and by retailers (ibid, p. 13). Besides, the Task 4 Report itself is not consistent on this matter because, despite this reference to pre-consumer waste as being generated at the manufacturing stages, in the specific section on pre-consumer waste (section 1.2.4.2.2, page 35), it refers exclusively to "the retailer stage" and to the policies "of the retailer". In this sense, waste generated during the manufacturing stage should qualifies as "post-industrial waste" (section 1.2.4.2.1, page 34).
1715	9.2.5.1; 3581	Waste generated at the manufacturing stage is considered post-industrial waste and not pre-consumer textile waste. The definition of "pre-consumer waste" does not align with the ongoing work by the JRC End-of-Waste team. According to the framework in development, pre-consumer waste is defined as waste generated at the retail level and by retailers (ibid, p. 13). Besides, the Task 4 Report itself is not consistent on this matter because, despite this reference to pre-consumer waste as being generated at the manufacturing stages, in the specific

ID	Section & line	Comment
		section on pre-consumer waste (section 1.2.4.2.2, page 35), it refers exclusively to “the retailer stage” and to the policies “of the retailer”. In this sense, waste generated during the manufacturing stage should qualifies as “post-industrial waste” (section 1.2.4.2.1, page 34).
1717	9.2.5; 3582	In France, waste holders are obliged to sort and collect textile waste. There is no obligation to recycle them.
1719	9.2.5.1; 3586-3589	Need to define what is included in waste management (collection, sorting, delivery to chemical recyclers, etc?). And regarding recycling technologies, can already private companies that are developing technologies take part in this, such as chemical recyclers?
1720	9.2.5.1 (page 132); 3586-3589	Could you clarify whether the term "waste management" encompasses both the establishment of recycling infrastructure and recycling operations? This would typically be assumed, but the distinction becomes somewhat unclear given that research and development for recycling is presented as a separate category.
1721	9.2.5.2 How to assess recyclability; 3590 - 3631	The industry wishes to raise its concern regarding the list of characteristics proposed in section 1.2.5.2, as they represent systemic, rather than product-specific assessment and cannot be controlled by a single actor, but are rather dependent on: 1. The readiness of the recycling channel (applicable for Characteristics 1 and 2) 2. The readiness of the recycling technology on the market (applicable for Characteristics 1, 2, and 3) on the market, 3. The advancement of recycling technology which allows an effective recycling of blended fabrics (applicable for Characteristic 4). Moreover, the definition should take into consideration also the potential negative impact on the possibility of verification of the recyclability of the product itself, should the proposed list of characteristics be legally binding. The industry inquires for a clarification and shares its concerns regarding the “its fibre content can be fully used…” under the 4th characteristic, due to the limitations of the products’ design and recycling technologies currently available on the market. For example, chemical recycling of polyester allows recycling of blended fabric with small percentage of non-polyester fiber. But the output is only polyester material, other fibers would be removed after recycling as waste. The concept of “degree of recyclability” is more practical than “full” recyclability of the fibers. The industry wishes to propose an alternative approach towards characteristics of the recyclability of a product, focusing on the alternative factors: 1. Product perspective - Focus on design and production of textile products. product characteristics that can be controlled by product design, material choice, product treatment and finishing. (Characteristics 3, 4, and 5) 2. Waste recycling perspective - Focus on the readiness of recycling technology and recycling channel in the market which should be the focus of recycling industry and beyond manufacturers’ control (Characteristics 1, 2, and 3)

ID	Section & line	Comment
		In consequence, the industry calls for alternative analysis of the recyclability of the product, with consideration of the economic aspects and alignment of the definition itself with other EU legislative developments, including End-of-Waste criteria, Waste Framework Directive, among others.
1722	9.2.5.2; 3590	The definition of the recyclability of textiles must be more clearly differentiated. Fundamentally, the distinction between waste streams is important, as are their technical feasibility and economic considerations. The dimensions are more complex than presented in the section. The differentiation of textile waste according to its origin, waste characteristics and quantity availability is crucial for the targeted recycling and quality assessment of the resulting recyclates. Likewise, the availability of the recyclates, the costs for their processing at different locations and the actual integration into the production process play an important role in the evaluation of recyclate origins. Both the regional origin and the stage in the supply chain influence the economic efficiency of recycling, but also the ecological and technological feasibility. Textile waste is categorised according to its origin and geological source: Pre-industrial waste arises from the extraction and processing of raw materials such as cotton or wool, e.g. surplus fibres as a by-product of production. It arises at the places where the raw materials originate. It is usually fed directly back into the fibre cycle because it is relatively pure. In principle, these by-products can be referred to as recyclates, but it is hardly possible to detect them in the end product. Post-industrial waste arises during production, for example, from selvedges, fabric offcuts or production surpluses. This waste is usually clean. The material compositions are easier to separate because they are uniform. This makes them easy to recycle. However, they are often only available in small quantities in the EU, as clothing is mainly produced abroad. Some production locations, such as Turkey, India or Bangladesh, have already established recycling routes for this production waste and, after further mechanical processing, feed it back into the spinning process as recyclates. However, they are not explicitly labelled as recyclates. Post-consumer waste includes textiles that have been consumed in the EU and then donated or disposed of, such as used clothing, shoes or home textiles. They usually consist of complex material mixtures. This alone makes it difficult to recycle them. In addition, there is a lack of an economic infrastructure to collect and sort them. For this reason, only a small proportion of this waste is actually processed into recyclates. This is a central challenge for implementing the circular economy targets. Pre-consumer waste refers to materials and products that are disposed of before they reach the consumer. This includes, for example, defective products or surpluses. Since there are currently hardly any economically viable solutions within the EU for recycling these textiles, pre-consumer waste is also a source of recyclates that is difficult to tap into. In addition, the individual foiling of products – for example, as transport protection – often makes unpacking and subsequent recycling considerably more difficult. This differentiation is essential, since not all waste streams are equally accessible and can therefore be recycled into recyclates in an economically viable way. The aforementioned goal of returning raw materials from every processing stage to actual end products as secondary raw materials is proving to be very difficult, especially in the EU: On the one hand, the necessary infrastructure for collecting and sorting used textiles is lacking. On the other hand, recycling the waste generated in Europe (pre- and post-consumer waste) is very costly and time-consuming due to its composition. As a

ID	Section & line	Comment
		result, alternative ways of obtaining textile waste as a secondary raw material are becoming increasingly important. These are, for example, rPET types that are currently coming onto the market: these are obtained from chemical recycling processes by glycolysis, hydrolysis or enzyme treatments, as well as physically by the use of special PET solvents. Although their share is only about two percent of the rPET market, it is increasing significantly. However, it is completely unclear to what extent they can be classified in terms of their macromolecular properties. Much research is still needed to be able to evaluate these alternative rPET types qualitatively and quantitatively. Another way to obtain PET as a secondary raw material is to use recyclates from other industries, such as rPet granulate from bottle production. This adds another dimension to the origins of recycled textiles already described, since it goes beyond the textile origin and must therefore be considered separately. For the sake of completeness, sources of recyclate from outside the industry are also listed here, as they may well be relevant for the production of recycled textiles.
1723	9.2.5.2; 3590	We recognise the important role of recyclability for boosting industry investments towards a well-functioning recycling value chain that ensures necessary supply of feedstock to assist in the application of criteria on recycled contents. However, as also stress the challenges of defining this parameter with the continuous development and innovation in recycling. It is critical to ensure that the eco-design legislation does not impose restrictions on recycling technologies as they scale up. Any indicator must be associated with a specific timeframe and a progressive roadmap, based on regular review and evaluation of the state of play.
1724	Section 9.2.5.2 How to assess recyclability; Lines 3590 to 3603 mentioning the 5 characteristics, pages 132-133	Similar comments as in the Section 9.1.3 Grouping of relevant products aspects on the definition of recyclability. The 4th and 5th criteria indicated in the recyclability definition are too constraining because: (i) only certain portions of fibre (in particular as relates to textiles made up of several fibers) may be recyclable and (ii) textiles usually contain certain elements or substances that will affect but not render impossible the collection, sorting, preparation for recycling or recycling. Some level of granularity should be included in (4) and (5). Taking this into account, we propose slight amendments to the definition of recyclability on points (4) and (5): “In order to be recyclable, an item of textile apparel should meet all the following five characteristics when it becomes waste: (1) it can be effectively collected;

ID	Section & line	Comment
		(2) it can be sorted, i.e. segregated from other waste and sent to the subsequent recycling pathways; (3) it can be prepared for recycling, or can be sent directly recycling without specific preparation; (4) its fibre content can partially be used as feedstock for one or more recycling techniques to produce recycled fibres usable in textile products (replace 'fully' with 'partially'); (5) it has no elements or substances that significantly disrupt the collection, sorting, preparation for recycling and recycling, or that limit prevent the use of the recycled fibre. " (add 'significantly' disrupt and replace 'limit' with 'prevent').
1725	9.2.5.2; 3590	Recyclability. Five characteristics of recyclable textile. Requirements 1 to 4 for recyclability are associated with the ecosystem needed for collecting, sorting, pre-treating, and recycling, rather than the product or its design. The establishment of this ecosystem is the focus of other initiatives such as the EPR and the future Circular Economy Act, not the ESPR. The DA for Ecodesign should define requirements that can be addressed through the design and manufacture of products. Please, consider the following feedback on the proposed recyclability definition:1. It can be effectively collected; --> how is 'effectively collected' defined/measured and how will this be secured? Although mandatory collection is supposedly in place as of 1 January 2025, this is not yet implemented at scale in the EU and certainly not the case on a global level. Given the globality of the sector, this is critical to take into account. 2. It can be sorted, i.e. segregated from other textile waste and sent to the subsequent suitable recycling pathways; 3. It can be pre-treated before recycling, or can be sent directly to recycling without specific pre-treatment; --> how is ''suitable recycling pathways' defined/measured and how will this be secured? Although mandatory collection is supposedly in place as of 1 January 2025, this is not yet implemented at scale in the EU and certainly not the case outside the EU. 4. Its fibre content can be fully used as feedstock for one or more recycling techniques to produce recycled fibres usable in textile products; --> how is 'fully used as feedstock' defined and measured? As already acknowledged in the preliminary study, textile apparel products are complex products, normally consisting of many components. These components can also be made from different fibre materials, that are generally not difficult to disassemble from each other, e.g., a skirt where the main fabric is composed of 100% wool with an acetate lining. We question the usefulness of

ID	Section & line	Comment
		the proposed recyclability concept, if say, said skirt would not be deemed recyclable while there is already a working recycling sector for the mechanical recycling of wool. Also, already today most recycling systems have some kind of tolerance to variation in fibre composition, even if as little 1-2%. We strongly caution that this specific criterion may result in that no textile apparel products would be deemed recyclable under the ESPR within the foreseeable future. 5. It has no elements or substances in amounts that disrupt the collection, sorting, preparation for recycling and recycling, or that limit the use of the recycled fibre. Point 5, while it pertains to product design and manufacture, it lacks specific details. For legal certainty and to ensure level playing field, the DA should specify the elements and substances, along with their amounts, that will disrupt recycling. To the best of our knowledge, there are no substances or elements that completely prevent textile recycling, as various recycling technologies can complement each other and address different challenges. Verification of recyclability definitions. If JRC envisions all 5 characteristics to be needed for a textile apparel product to be defined as recyclable, then how is JRC envisioning companies to ensure compliance in verifying and documenting all 5 points – and how does JRC envision market surveillance authorities enforcing it? As referenced before, it is critical that ecodesign requirements are verifiable.
1726	9.2.5.2; 3590	Defining Recyclability Five characteristics of recyclable textile have been defined by the JRC: Requirements 1 to 4 for recyclability are associated with the ecosystem needed for collecting, sorting, pre-treating, and recycling, rather than the product or its design. The establishment of this ecosystem is the focus of other initiatives such as the EPR under the Waste Framework Directive, not the ESPR. The DA for Ecodesign should define requirements that can be addressed through the design and manufacture of products. Please consider the following feedback on the proposed recyclability definition: 1. It can be effectively collected; --> how is 'effectively collected' defined/measured and how will this be secured? Although mandatory collection is supposedly in place as of 1 January 2025, this is not yet implemented at scale in the EU and certainly not the case on a global level. Given the global sector, this is critical to take into account. 2. It can be sorted, i.e. segregated from other textile waste and sent to the subsequent suitable recycling

ID	Section & line	Comment
		pathways; and 3. It can be pre-treated before recycling, or can be sent directly to recycling without specific pre-treatment; --> how is ''suitable recycling pathways' defined/measured and how will this be secured? Although mandatory collection is supposedly in place as of 1 January 2025, sorting and pre-treatment is not yet implemented at scale in the EU and certainly not the case outside the EU. 4. Its fibre content can be fully used as feedstock for one or more recycling techniques to produce recycled fibres usable in textile products; --> how is 'fully used as feedstock' defined and measured? As already acknowledged in the preliminary study, textile apparel products are complex products, normally consisting of many components. These components can also be made from different fibre materials, that are generally not difficult to disassemble from each other, e.g., a skirt where the main fabric is composed of 100% wool with an acetate lining. We question the usefulness of the proposed recyclability concept, if say, said skirt would not be deemed recyclable while there is already a working recycling sector for the mechanical recycling of wool. Also, already today most recycling systems have some kind of tolerance to variation in fibre composition, even if as little 1-2%. We strongly caution against this specific criterion as it may result in that no textile apparel products would be deemed recyclable under the ESPR within the foreseeable future. 5. It has no elements or substances in amounts that disrupt the collection, sorting, preparation for recycling and recycling, or that limit the use of the recycled fibre. --> there are no known SOCs that mechanically, functionally or practically hamper recycling today. Regarding point 5, while it pertains to product design and manufacture, it lacks specific details. For legal certainty and to ensure level playing field, the DA should specify the elements and substances, along with their amounts, that will disrupt recycling. To the best of our knowledge, there are no substances or elements that completely prevent textile recycling, as various recycling technologies can complement each other and address different challenges. Verification of recyclability definitions: If JRC envisions to define recyclability at this stage and foresees that all five characteristics to be needed for a textile apparel product to be defined as recyclable, then the JRC must further assess how brands can ensure compliance in verifying and document all 5 points, as well Market Surveillance Authorities. As referenced before, it is critical that eco-design requirements are measurable and verifiable.

ID	Section & line	Comment
		Reflecting on the above and as recycling capabilities vary widely in the EU Single Market, setting rigid, uniform requirements now would likely stifle innovation and misalign with what's technically feasible. Instead, the study should focus on identifying common disruptors and setting flexible, high-level guidelines that can adapt as technology progresses, and on building the right infrastructure across the EU to collect, sort, and prepare materials for recycling. We believe at this stage, defining effective eco-design requirements for recyclability is premature.
1727	9.2.5.2; 3590- 3631	The JRC's five definitions of recyclability reflect "actual recyclability" and are influenced by multiple factors, making them difficult to control by any single actor. Implementing verification for these definitions would require significant effort and resources, with no clear indication of who would be responsible for overseeing this process. More specifically, requirements 1 to 4 are associated with the ecosystem needed for collecting, sorting, pre-treating, and recycling, rather than the product or its design. Additionally, concerning the 4th characteristic proposed by the JRC (its fibre content can be fully used as feedstock), it is important to highlight that even for recycled fibres it will be difficult to reach 100% purity. Linking recyclability to BC, BAT, and BNAT could disadvantage niche, sustainable fibers by categorizing them as BC, even when produced with advanced technologies in environmentally responsible ways. Materials should not be marginalized simply due to a lack of dedicated recycling processes, especially when their limited waste presence reflects production volume rather than recyclability. While recycling investments naturally prioritize high-volume fibres, this should not discourage the use of lower-volume or specialized fibres. A regulatory framework favouring commodity materials could undermine Europe's diverse and innovative textile industry. The textiles delegated act (DA) should define requirements that can be addressed through the design and manufacturing of products. Regarding point 5, while it pertains to product design and manufacture, it lacks specific details. For legal certainty and to ensure level playing field, the DA should specify the elements and substances, along with their amounts, that will disrupt recycling. As the industry and innovation evolves, there are no substances or elements that completely prevent textile recycling, as various recycling technologies can complement each other and address different challenges. Moreover, the definition should take into consideration also potential negative impacts on the possibility of verification of the recyclability of the product itself, should the proposed list of characteristics be legally binding. It is also important to acknowledge that design requirements alone cannot guarantee recyclability without systemic support. While innovation continues to advance, it is also important to ensure the competitiveness of the European recycling industry, and to boost those recycling technologies that are already scalable. For those technologies that are not scalable, it is important to assess what tools are needed to move the industry forward.

ID	Section & line	Comment
		Incentives to support this are critical, as brands struggle to cover high costs while innovators find it hard to raise capital. Incentives are needed for both e.g. tax breaks for companies using innovative materials or grant funding access for innovators.
1732	9.2.5.2 How to assess recyclability;; 3,591 ff	With reference to the five characteristics presented, it is proposed that these be translated into concrete and product-specific requirements. Two workshops (aligned by UBA) were held with stakeholders (“experts”) in advance to ensure that the proposed design criteria are efficient from the users' point of view (perspective of recyclers) and can be implemented in practice during product development (perspective of product developers). Proposals I. and II. relate to the multi-material use at surface level in the finished product. Proposals: I. Restriction on the use of heterogeneous materials: - max. 2 different materials processed in one surface layer (Excluding the sewing thread material to ensure durability e.g. through PES seams). II. Material usage quota: - Use from min. 5-10% (exact minimum to be defined) (including conclusions on the status quo of automatic detection of fibre materials and automatic sorting, to limit a too low percentage of individual fibre materials that have no influence on the function or durability of the product). - Separate consideration of elastane, utilisation rate 5-15% (Depending on the recycling process, high-quality recycling of the textile surface with an application of approx. >15% elastane is, according to the current state of technolo-gy, largely not feasible; currently, in chemical recycling up to approx. 3-5% elastane can be handled; in mechanical recycling, a high quality recycling with up to approx. 15% elastane is possible). Consequently, recyclability is severely restricted from a utilisation of approx. 15% elastane. III. Information obligation To identify which recycling process should be favoured for the product so that the highest recyclate quality can be achieved. Provision of information about, for example: Yarn twist (staple fibre), yarn count (filaments), weave: knitted fabric, open surface structure, non-textile components, specific use of chemicals incl. finishing, mono-multi-material use. The proposed minimum requirements for the recyclability of textile products include two specific criteria that relate to the use of materials at surface

ID	Section & line	Comment
		level in the finished product: These include a restriction on the use of heterogeneous materials and a material usage quota including a separate consideration of the use of elastane. The overall consideration at surface level serves to promote both mono-material products and mono-material mixed products (e.g. multi-layer products whose surfaces consist of mono-material). According to experts, a restriction to 1-2 heterogeneous materials within a surface, for example, would be feasible and a corresponding limitation would also have a significantly positive effect on recyclability. A correspondingly formulated requirement would be an appropriate compromise between durability and recyclability. With regard to specific requirements for the use of elastane, the team of experts also expressed the view that it is not necessary to set requirements exclusively for the use of this material. Other fibre materials should also be explicitly included. At the very least, an elastane utilisation rate of between 5-10% would support near-infrared (NIR) technologies, for example, in the context of large-scale automatic sorting projects. In this context, it is also pointed out that the use of carbon black is a problem for automatic sorting systems but can be an advantage for filtering these pigments within chemical recycling processes. The experts emphasise the need to classify product requirements in relation to differentiated product groups. Different categories should accordingly reflect for which specific products a restriction to promote recyclability is to be categorised as useful or not very useful. Technical practicability and economic efficiency, preferably of recycling processes, should also be considered in this context. The general exclusion of groupings, for example due to product complexity, is not desirable, in particular to avoid limited potential design changes from the outset. Instead, it should be scrutinised how products can be made more separable during the design process, for example. However, specific criteria for the separability of products could also be defined via the product aspect of reparability. If an exclusion of product groups is nevertheless integrated within the requirements, the corresponding product groups could be successively included in the scope as recyclability increases due to technological developments. Exceptions should only apply to products for which there is an essential functional benefit (e.g. swimwear). Durability should not be prioritised over recyclability without restriction for all products, as ultimately every product reaches the end of its product life cycle. In combination with the other product aspects, prioritisation should be carried out in these cases to include interactions and dependencies between different product parameters in the requirements profile.
1733	9.2.5.2; 3593-3605	This formulation will prevent the development of less environmentally damaging types of fibre, which initially have very small volumes and as they cannot be efficiently sorted and thus not classified as recyclable. Efficiency in the beginning will not be done on a large scale and therefore it will be difficult to achieve efficiency Need a standard just like EN643 for PfR Need baling etc and a standard for this

ID	Section & line	Comment
		Yield/loss is always included in recycling Almost all clothes that are put on the market today and that will be sold on the international market contain disruptors, for us e.g. elastane and polyamide are a disruptor and are found in everything almost. In order to increase recycling, disruptors must be allowed and we must learn to manage and remove contaminants. Give us the opportunity to develop.
1734	9.2.5.2; 3593-3603	On the five characteristics that would apply to recyclability, we question the meaning of “can” in each of those five characteristics. Does “can” refer to Technical ability" or "economic ability"? In fact, from a technological perspective, most of the garments are recyclable, when we consider the wide range of recycling technologies existent on the market. However, in reality, for a material to be truly considered recyclable, the technology must be available at an industrial scale and be economically viable. Sorting and recycling efforts focus on the most common textile waste, mainly polyester and cotton, due to their high production volumes. Recyclability potential alone is not enough—market demand and regulatory support are essential to drive recycling adoption. Furthermore, in order to meet the possibilities of recyclers, the fewer fiber types, non-textile disruptors, fabric layers, finishes and membranes in a garment, the more recyclable it is. Limiting garments to a maximum of three types of fibers could enhance recyclability. More than three increases complexity, leading to more challenges in sorting and processing. As highlighted by a recent Resortecs study (2024, “Efficient pre-processing for affordable recycled textiles – The power of design-for-disassembly in garment recycling”), “multi-material products [...] suffer from substantial material losses during the mandatory disassembly step. Current disassembly processes result in a 50-60% loss of material” which risks making recycling economically unviable. Elastane is currently difficult to recycle and becomes problematic in blends. For recycling purposes, elastane content should not exceed 5%, as higher amounts are hard to process. Garments with 5-10% elastane face recycling challenges and are often repurposed into insulation or automotive material) rather than being reused for clothing. A specific recyclability requirement might be thus to avoid the use of elastane mixed with other fibers if the concentration of elastane is higher than 10%, since this has been proved to block recycling (Duhoux, T and all, 2021, Study on the technical regulatory, economic and environmental effectiveness of textile fibers recycling), although this might be a challenging requirement for swimwear.

ID	Section & line	Comment
		On line 3596: It should be specified that sorting has to follow the waste hierarchy. All separately collected textile, textile-related, and footwear items must first be sorted for reuse by a professional sorter to maximize the reuse rates. Thus, the 2nd characteristics for recyclability should be rephrased in this way: “It can be sorted following the waste hierarchy, i.e. segregated from other textile waste and reusable textiles and sent to the subsequent suitable recycling pathways.”
1735	9.2.5.2; 3593	The text mentions that there is alignment with the French Law n. 2020-105. However, upon reviewing the five characteristics, certain differences emerge compared to the AGEC Law. Notably, in point 4, the AGEC Law specifies that approximately 50% of the product's mass should serve as feedstock for one or more recycling processes aimed at producing recycled fibers suitable for use in textile products. The stakeholder prefers to keep the 50% threshold, as the “fully used” wording can be subject to interpretation and/or difficult to reach.
1736	9.2.5.2; 3593-2603	We strongly object to the recyclability criterion requiring 100% of a material's content to be used as feedstock for a product to be considered recyclable. This rigid threshold overlooks the reality of textile recycling, where the priority should be maximising material recovery rather than imposing an unattainable target. Many advanced recycling technologies effectively process material blends and recover a significant portion of textile fibres, even if full recovery is technically unfeasible. In fact, looking to other sectors for guidance, regulations addressing recyclability in plastics, packaging and paper industry do not impose a threshold of 100% recyclability for a product to be considered recyclable. Setting such an unrealistic standard would hinder innovation, discourage investment in recycling solutions, and exclude efficient recyclers that play a key role in textile circularity. If the intention is to drive recycled content material from recyclable waste being defined under the recyclability definition, then the definition of recycled content must be revised and the word “recyclable” should be removed. Instead, recyclability criteria should focus on regaining as much textile material as possible, ensuring that the majority of fabric content is successfully reintroduced into the production cycle. This would create a more inclusive and scalable framework that accommodates various recycling technologies and enables continuous improvement in recovery rates. By adopting a more pragmatic and flexible approach, policymakers can drive real progress toward circularity, support the growth of textile-to-textile recycling, and significantly reduce reliance on virgin material production. This, in turn, would lower resource depletion, minimise environmental impact, and accelerate the transition to a more sustainable and resilient textile industry.
1738	9.2.5.2 (page 133); 3593-3605	In principle, we align with the definition of recyclability. However, two additional aspects should be considered in this context: 1. While some materials are theoretically recyclable, the lack of sufficient textile waste from these materials poses a challenge. Without a stable and sizable supply, industrial-scale trials remain unfeasible, and there is little incentive for research and development. The absence of consistent volume potential further discourages investment in recycling infrastructure. We do not view the lack of available waste for certain materials as a disadvantage. Materials should not be penalized for being classified as non-recyclable if they have the potential to be recycled once a sufficient waste stream becomes available.

ID	Section & line	Comment
		2. Even when materials have the potential to be recyclable, they may not reach that stage without sufficient market demand, particularly if such demand is not reinforced through regulatory measures. Without a structured approach to fostering demand for recycled fibers, many materials with recyclability potential will remain underutilized. Linking the definition of recyclability to the concepts of BC, BAT, and BNAT in Section 9.2.5.3 may not represent a fair approach. This connection could inadvertently disadvantage fiber types that are produced in an eco-responsible manner using best-available technologies, particularly in cases where waste is either unavailable or insufficient in quantity to facilitate industrial-scale trials for developing the necessary recycling technologies. For further details, please refer to comments 3632–3644.
1741	9.2.5.2; 3594-3603	Requirements 1 to 4 for recyclability are associated with the ecosystem needed for collecting, sorting, pre-treating, and recycling, rather than the product or its design. The establishment of this ecosystem is the focus of other initiatives such as the EPR and the future Circular Economy Act, not the ESPR being product-level legislation. The Delegated Act for Ecodesign should define requirements that can be addressed through the design and manufacture of products. Regarding point 5, while it pertains to product design and manufacture, it lacks specific details. For legal certainty and to ensure a level playing field, the DA should specify the elements and substances, along with their amounts, that will disrupt recycling. To the best of our knowledge, there are no substances or elements that completely prevent textile recycling, as various recycling technologies can complement each other and address different challenges.
1742	9.2.5.2; 3594-3603	Considering that it has been mentioned that the ability to meet criteria 1-4 depends on the available infrastructure, it must be taken into account that the maturity or development of this infrastructure is geographically dependent. Therefore, the criterion of being capable of being collected, separated, and recycled will vary depending on the geography in which it takes place. The situation will not be the same for waste managers in certain European countries or regions outside the EU.
1744	9.2.5.2; 3594-3603	The text mentions that there is alignment with the French Law n. 2020-105. However, upon reviewing the five characteristics, certain differences emerge compared to the AGEC Law. Notably, in point 4, the AGEC Law specifies that approximately 50% of the product's mass should serve as feedstock for one or more recycling processes aimed at producing recycled fibres suitable for use in textile products. The “fully used” is difficult to reach. Regarding point 5, while it pertains to product design and manufacture, it lacks specific details. For legal certainty and to ensure level playing field, the DA should specify the elements and substances, along with their amounts, that will disrupt recycling. To the best of our knowledge, there are no substances or elements that completely prevent textile recycling, as various recycling technologies can complement each other and address different challenges.
1747	9.2.5.2; 3595-3603	When setting the criteria, it must be ensured that it can be properly verified by national authorities, which raises the question of how compliance with these infrastructure-related criteria will be verified.
1748	9.2.5.2; 3595-3603	Could you please provide clarification on the literature that established the definition of recyclability?

ID	Section & line	Comment
1749	9.2.5.2 How to assess recyclability; 3595-3604	The definition of a recyclable textile excludes almost all textile products on the market today from being considered recyclable, which we believe is fair considering the maturity level of recycling techniques and the complexity of textile products. For implementation of eco-modulated fee's however we believe that larger differentiation is needed with concrete guidelines for the respective levels regarding fiber content, disruptors etc. The binary system "recyclable/non-recyclable" is too blunt. Implementation of eco-modulated fees could probably also increase the likelihood of using recycled materials or producing within the EU. However, direct imports must be handled legislatively to not put the European actors out of business.
1750	9.2.5.2; 3595-3603	Because recyclability and recycled content grouped together may in some cases involve mutually exclusive activities. At this stage, it should not be excluded that textiles are recycled only into textiles, as the structure of textiles and the high amount of mixed materials in the markets will hypothetically divert textiles to other industrial uses if they are not suitable for textile-to-textile fibre recycling. Recyclability should not be assessed based on the infrastructure of recycling. Eco-design is bout product aspects, which can be influenced by the company placing products into market. All in all, recyclability is a complex topic, and future technological advancements must be considered. We propose changing the perspective for apparel recyclability into product design decisions. These have been sketched in various circular design toolkits and can be related to for example: use of blends (many times necessary, sometimes not) easy disassembly of hard parts (maybe not relevant for all recycling methods) main material can be recycled with existing recycling techniques is good, but 100 % recyclability is not No finishes such as prints, that make recycling more difficult
1751	Chapter 9; 3595-3597	(characteristics of recyclable textile): Note that at least point 1. and 2. can not be regulated through ESPR.
1754	9.2.5.2; 3596	With the wording of "can be sorted", there is a risk that the development of fibers with lower environmental impact is hindered. This is because of initial small volumes that cannot be efficiently sorted out and classified as recyclable.

ID	Section & line	Comment
1755	Section 9.2.5.2 How to assess recyclability; lines 3596 to 3597 on sorting (2nd recyclability characteristic)	Original Characteristic 2: It can be sorted, i.e. segregated from other textile waste and sent to the subsequent suitable recycling pathways. Proposed Revision of the characteristic definition: It can be sorted on product-construction, product-component, and/or material level and sent to the subsequent suitable recycling pathways. Justification: Clarification on sorting levels required: • Product-construction level: Differentiates products by design (e.g., lined vs. unlined jackets). • Component level: Separates materials such as zippers vs textile. • Material level: Categorizes textiles by fiber type (e.g., polyester vs. nylon). Challenges: Current sorting technologies struggle to process multi-material garments with hidden or attached components (e.g., elastic bands, interlinings, reflective trims). Inadequate sorting precision results in contaminated recycling feedstock and reduces material recovery rates. Solution: Compliance with Pre-treatability requirement (Characteristic 3) allows effective separation and sorting, reducing non-recyclable outputs and improving feedstock purity.

ID	Section & line	Comment
		Detailed supporting message: Referencing industry research, current sorting limitations result in a large percentage of incorrectly classified textile waste. Manual sorting costs are high, and automated systems often misclassify products due to embedded trims and complex constructions. Defining sorting categories enhances accuracy and recyclability. Scalable sorting solutions like Siptex are essential. However, these systems require extensive manual pre-sorting to remove items they cannot process, such as multi-layer garments, shoes, and upholstered products (e.g., pillows and quilts). This additional sorting step significantly increases costs: • Mechanical disassembly: Input costs double. • Manual disassembly: Input costs rise by 1.5 times. • Total process yield drops: Efficiency decreases to just 20-35% of the original textile waste (Based on our own findings (35%) and industry discussions with waste collectors like Veolia (20%) from testing different mechanical disassembly systems). With lower yields and higher sorting costs, the final feedstock cost (output cost) can be up to 10x the anticipated input cost – averaging €1,700 per ton (excluding margins). This is 5x what recyclers are willing to pay. A large portion of textiles must be excluded before pre-treatment because: Non-recyclable blended fabrics – Up to 60% of collected clothes contain blends that cannot be processed. Problematic components – 22% of clothes include elastic bands, reflective ribbons, or other materials that interfere with pre-treatment. Unprocessable construction – 9% of clothes, such as multi-layer products, cannot be effectively processed. Further reading: • Swedish Innovation Platform for Textile Sorting - A summary report of the final stage of the project (https://www.ivl.se/download/18.19b39e311838a550c3c19194/1667295881384/Siptex_summary_221101.pdf) • Characterisation study of the incoming and outgoing streams from sorting facilities (https://refashion.fr/pro/sites/default/files/rapport-etude/Overview_Characterisation_study_Refashion_2023_EN.pdf)

ID	Section & line	Comment
		• Sorting for circularity, Europe - An evaluation and commercial assessment of textile waste across Europe. (https://refashion.fr/eco-design/sites/default/files/fichiers/Sorting-for-Circularity-Europe_Fashion-for-Good.pdf)
1758	Section 9.2.5.2 How to assess recyclability; lines 3598 to 3599 on pretreatment (3rd recyclability characteristic)	Original Characteric 3: "It can be pre-treated before recycling, or sent directly to recycling without specific pre-treatment." Proposed Revision: "It can be pre-treated before recycling or sent directly to recycling without specific pre-treatment. For multi-material products with soft trims and multi-layer structures, design-for-recycling strategies, such as active-disassembly solutions (e.g., reversible adhesives, dissolvable stitches), must be integrated during production." Justification: Clarification on pre-treatment processes required: Clipping/Cutting Disassembly Removal of dyes and chemicals Challenges: 31% of collected textiles cannot be processed mechanically due to their multi-layered nature and soft trims, requiring expensive manual pre-sorting or disassembly. The lack of scalable, cost-effective pre-treatment solutions limits the supply of high-purity feedstock necessary for recyclers.

ID	Section & line	Comment
		Solution: • Multi-material multi-layer products (e.g., products with linings like jackets) and Multi-material products with soft trims (e.g. elastics, reflective ribbons, bias ribbons, etc.): Require active disassembly technologies to efficiently separate layers and trims. • Multi-material mono-layer products: Can be processed through conventional mechanical pre-treatment systems. • Economic Considerations: Without pre-treatment advancements, manual disassembly costs rise by up to 1.5 times, and mechanical disassembly costs can double, significantly impacting recycling economics. Detailed supporting message: The JRC study underscores the critical need for high-purity recycling feedstock, yet pre-treatment remains a major bottleneck. Without scalable solutions, textiles containing disruptors—materials that hinder recycling—cannot be efficiently processed. These disruptors include both hard trims (e.g., zippers, buttons) and soft trims (e.g., elastic bands, textile labels), as well as multi-material constructions that combine different fabrics and blends. Currently, 31% of complex textile products, including multi-layer garments and those with soft trims, cannot be effectively processed using standard mechanical or manual recycling systems (see Table 2). However, active disassembly solutions offer a viable alternative. As highlighted in the JRC's preparatory study, "new process techniques allow disassembly of waste in cases where specific stitches have been used for confectioning." By integrating dissolvable stitches or similar technologies at the design stage, disrupting components can be removed automatically, increasing material recovery by more than 2x, accelerating processing by up to 15x, and reducing costs by up to 3x compared to traditional mechanical and manual methods. Adopting active disassembly solutions from the outset would significantly enhance the efficiency, scalability, and cost-effectiveness of textile recycling, ensuring that products are designed for a truly circular economy. Design-for-Disassembly, including active-disassembly solutions, are already used by several companies such as: • Sportswear: Decathlon (ski jackets, swimwear), Nike (sneakers) and Vaudé (bicycles bags). • Denims: Inditex' Bershka, HNST, Unspun and MudJeans.

ID	Section & line	Comment
		• Mattresses: Bekaert Deslee. • Workwear: Sioen and Total Uniforms. • Automotive: Mercedes. The above companies are using available technologies of different innovators and suppliers such as Coats, Resortecs, Wear2Go, Rescoll, Climatex, Around Systems, PCH and Circular.Fashion. The solutions range from dissolvable/degradable threads and reversible glues to more mechanical modifications in product construction. Further reading: • The document shared with JRC-B5-TEXTILES@ec.europa.eu in which supplementary tables and documentation are added clarifying furthermore the potential disruptors. • From Waste to Profit - Unlocking Industrial-scale Textile Recycling in Europe (https://resortecs.com/from-waste-to-profit-unlocking-industrial-scale-textile-recycling-in-europe/) • Feasibility Study for Finding Mathematical Approaches to Describe the Optimal Operation Point of Sensor-Based Sorting Machines for Plastic Waste (https://www.mdpi.com/2073-4360/15/21/4266) • Swedish Innovation Platform for Textile Sorting - A summary report of the final stage of the project (https://www.ivl.se/download/18.19b39e311838a550c3c19194/1667295881384/Siptex_summary_221101.pdf) • Resortecs x Decathlon: Industrialising Recyclable Swimwear (https://resortecs.com/resortecs-x-decathlon-industrialising-recyclable-swimwear/) • From now on we have to collect all discarded clothing, but recycling turns out to be a tough job (https://www.tijd.be/ondernemen/textiel/voortaan-moeten-we-alle-afgedankte-kledij-inzamelen-maar-recyclage-blijkt-zware-klus/10581525.html)
1759	9.2.5.2; 3600	The adverb 'fully' should be removed because it does not consider that, in some cases, some fibers have to be removed/destroyed in order to recover the main ones (e.g. the case of carbonizing process to remove cellulosic materials, including cotton and viscose, to recover wool for recycling). We suggest amending the text as follows:

ID	Section & line	Comment
		Its fibre content can be used as feedstock.
1760	Chapter 9.2.5.2; 3600	Definition of recyclability Comment: Criterion 4, "its fiber content can fully be used as feedstock for one or more recycling techniques to produce recycled fibers usable in textile products;" is too strict. Most of garments are blended and usually recyclers can only recover one, the "dominant", raw material to an extent that it can be converted into new fibers. Examples: The stakeholder can recycle PA6/elastane waste, but only recover PA6. PET recyclers usually can accept PET/elastane waste, but only recover PET. Very few companies can take in cotton/PET waste and utilize both. Rationale: JRC report on end of waste criteria says that 60-70% of fibers on the market are blended fibers. Recommendation: Adjust criterion to: "its dominant / majority fiber content can fully be used as feedstock for one or more recycling techniques to produce recycled fibers usable in textile products;"
1761	9.2.5.2; 3600	We see a flaw in the definition of recyclability, especially point 4, insofar it does not consider the ability of a recycling technique to handle the volumes of apparel marketed in the EU at industrial scale and in a way that is economically viable. To be eligible under point 4, a recycling technique should not just be technologically ready, but also at scale and widely available and present in the EU. Otherwise, the definition would result in a loophole, whereby a huge volume of garment could be considered recyclable even if there is a small recycling plant very far from where the textile waste is generated and with a technology that is energy and resource-intensive and not economically interesting.
1762	9.2.5.2; 3600	We see a flaw in the definition of recyclability, especially point (4), insofar it does not consider the ability of a recycling technique to handle the volumes of apparel marketed in the EU at industrial scale and in a way that is economically viable. To be eligible under point (4), a recycling technique should not just technologically ready, but also at scale and widely available and present in the EU. Otherwise, the definition would result in a loophole, whereby a huge volume of garment could be considered recyclable even if there is a small recycling plant very far from where the textile waste is

ID	Section & line	Comment
		generated and with a technology that is energy and resource-intensive and not economically interesting. Furthermore, we suggest adding in point (1) that textile waste can be effectively separately collected; and in point (2) that it can be sorted, i.e. segregated from other waste and sent to the subsequent recycling pathways without affecting the recyclability of other waste streams.
1763	Section 9.2.5.2 How to assess recyclability; lines 3600 to 3601 on fiber content (4th recyclability characteristic)	Original Characteric 4: "Its fiber content can be fully used as feedstock for one or more recycling techniques to produce recycled fibers usable in textile products." Proposed Revision: "Its fiber content can be fully used as feedstock for at least two recycling techniques to ensure flexibility in processing and safeguard technological availability. Blend fabrics containing more than three distinct materials, with each exceeding 10% at the fabric level, should be restricted." Justification: • Recyclability criteria: Ensuring usability in textile applications is key to establishing effective recycling pathways. • At least two recycling techniques: Prevents reliance on a single method, ensuring long-term viability. Encourages investment in multiple recycling technologies. Blend Fabric Concerns: 48-60% of collected textiles are currently unrecyclable due to complex blends. Fabrics with more than 5-10% non-recyclable material should be phased out (threshold to be validated by JRC).

ID	Section & line	Comment
		Detailed support: With 48-60% of textile waste consisting of non-recyclable blends, limiting the number of distinct materials in a fabric blend ensures a viable recycling output. Supporting at least two recycling techniques prevents monopolization of recycling processes and guarantees long-term feasibility. Many pre-treatment processes (especially mechanical disassembly systems) can't achieve the required 80-100% purity output targets requested by recyclers with a large portion of post-consumer waste: • 48-60% of all textile products collected are made of unrecyclable blend fabrics resulting in more than 50% of products not fitting the recycling standards. Hence, limiting the number of distinct materials in a fabric blend ensures a viable recycling output. • 31% of textile products collected are not processable with mechanical disassembly and sorting lines because they are multilayers (i.e. have linings) and/or comprise soft trims (e.g. elastics and reflective ribbons). This results in wasted products and/or so-called contaminated feedstock that includes wrongly sorted materials. Further reading: •White Paper on Textile Fibre Recycling Technologies (https://www.mdpi.com/2071-1050/16/2/618)
1764	9.2.5.2; 3600-3601	Disagree with the recyclability criterion requiring 100% of a material's content to be used as feedstock for a product to be considered recyclable. • Although we agree with JRC's design thinking on reducing numerous blends or non-recyclable coatings and treatments to be added onto garments, this 100% recyclability and recycling creates an all-or-nothing sort of threshold that most processes cannot realistically meet. This is because even in highly advanced chemical recycling processes, that can handle blends, they might still lose a small fraction to contaminants, non-recyclable additives, dyed portions, or process inefficiencies. My view is that 100% feedstock recovery is never possible, it is unrealistic and potentially exclusionary. [this also goes back to them pushing for mono material which is very unrealistic and limits growth of blend recyclers] • So, even if a product is 90% recoverable, it would not meet the requirement. • Imposing this all or nothing sort of threshold can disqualify and discourage useful blend recycling technologies, making it harder for them to scale. Also, other industries like paper, packaging and plastics do not impose this 100% recyclability threshold.
1766	9.2.5.2; 3601	There is no reason to limit the use of recycled textile fibers only in textile products because, due to their characteristics and quality, a part of recycled fibers can be better used in different sectors as, just as an example, the paper sector (Refit of Favini, Albini_next of Fedrigoni, etc.). The EU and the JRC

ID	Section & line	Comment
		must rethink the framework conditions in order to accelerate a sustainable T2X strategy (with the goal of T2T). Chemical recycling as a 'Not-Yet Best Available Technology' (NBAT) will play an important role here and even make it possible to produce food PET from non-food PET. This would also make 'Textile-to-Bottle' (one of T2X) possible. This path must not be blocked today by a one-sided view and regulation. This seems to be in contrast with the principle of fostering industrial symbiosis, and could only increase the amount of textile wastes which is landfilled. We suggest amending the text as follows: [...] fibres usable in textile and other products. This highlights the fact that a recycling process could result in outcomes with different characteristics and quality which have to be properly considered and managed in order to ensure that the recycling process will be effectively closed.
1768	9.2.5.2; 3602-3614	How will it be possible to ensure that materials entering the recycling chain comply with EU standards, given the lack of verification of textile material characteristics imported from countries where EU restrictions (e.g., REACH) do not apply? These materials could contaminate the entire value chain, making them unsuitable for upcycling. It is essential to establish a system ensuring that all textile materials placed on the EU market meet the same minimum requirements and to set up a gods entry verification system.
1769	Section 9.2.5.2 How to assess recyclability; lines 3602 to 3603 on recycling disruptors (5th recyclability characteristic)	Original Characteric 5: "It has no elements or substances in amounts that disrupt the collection, sorting, preparation for recycling and recycling, or that limit the use of the recycled fiber." Proposed Revision: "It contains no substances in amounts that hinder collection, sorting, pre-treatment, or recycling. To ensure REACH compliance and efficient sorting of multi-layer products, automatically scannable tracers supporting the Digital Product Passport (DPP) must be embedded." Justification: • Define disruptive elements: Precise thresholds are needed to clarify what substances hinder recyclability. • Risk of unknown chemicals:

ID	Section & line	Comment
		Unidentified coatings and finishes can reintroduce banned chemicals into the recycling system. • Digital Product Passport (DPP): Ensures transparency in material composition. Requires automatically readable markers (e.g., washable RFID) for efficient sorting. Detailed support: Chemical treatments and unidentified finishes pose a significant challenge to recyclability, as they can introduce contaminants that compromise material purity and safety. Integrating Digital Product Passports (DPP) with automatically scannable tracers enhances transparency, streamlines sorting processes, and minimizes the risk of reintroducing banned substances into the recycling stream. To ensure recyclability, a clear definition of disruptive elements, along with precise threshold limits, is essential. Without proper identification, unknown chemicals or finishes may fail to meet REACH compliance before sorting, increasing the likelihood of restricted substances re-entering the system. For seamless integration into recycling operations, the DPP must be embedded in a format that allows for automatic scanning without manual intervention, such as washable RFID tags, ensuring efficiency and compliance throughout the sorting and recycling process.
1773	9.2.5.2; 3604	Could you please provide clarification on the literature that established the definition of recyclability?
1774	Section 9.2.5.2 How to assess recyclability; lines 3604 to 3606 on the goal of the recyclability characteristics.	There still are some limitations of the current five product characteristics Compliance vs. Real-world recyclability. The current five product characteristics do not guarantee that end-of-life (EOL) textile products can be processed in a cost-effective and operationally viable way. As a result, products that are not truly sortable, pre-treatable, or recyclable can still meet the proposed guidelines and be marketed as compliant. The example below illustrates a product that technically meets the criteria but is not practically recyclable at an industrial scale. Its compliance relies on manual processing, which is neither economically nor operationally feasible within the EU or internationally due to the complexity of its design. EXAMPLE: A multi-layer outdoor jacket with insulation that is composed of PET fabric with 90% PET content, hidden elastic bands (cufflings, waist band and hood) and incorporated DPP on QR code label. - The product can be collected using existing collection-sorting network. (±100€/ton)

ID	Section & line	Comment
		- The product can be manually sorted in combination with DPP and NIR table units. (300-700€/ton) - The proudct can be disassembled/de-trimmed (i.e. pre-treated) manually. (600€/ton input) - The fibre of main fabric content is >80% pure PET and thus chemically recyclable - Elements that disrupt are managed manually (i.e. pre-treatment, sorting, etc.) As the example product has not been designed for recycling the cost of collecting, sorting and pre-treating the product is ±1400€/ton input. Taking into account the yield of all processes the output cost (or feedstock cost) surpasses the 1700€/ton. This is ±5x higher than what reyclers are willing and able to pay for feedstock, as this would result in recycled material costing 2x more than what Brands are willing to pay. N.b. Information on cost structure is collected from Eunomia report & industry discussions with collector-sorters. Further reading: - The document shared with JRC-B5-TEXTILES@ec.europa.eu in which supplementary tables and documentation are added supporting the cost calculations and potential disruptors. - Advanced Sorting for Circularity - How Advanced Sorting using Markers and Object Recognition Can Contribute to Plastics Circularity and Traceability in Europe (https://eunomia.eco/getmedia/reports/Advanced_Sorting_for_Circularity_Report.pdf)
1777	9.2.5.2; 3608	We agree that the PS should not include any geographical limitation to the recycling processes. Considering that it has been mentioned that the ability to meet criteria 1-4 depends on the available infrastructure, it must be taken into account that the maturity or development of this infrastructure is geographically dependent. Therefore, the criterion of being capable of being collected, separated, and recycled will vary depending on the geography in which it takes place. The situation will not be the same for waste managers in certain European countries or regions outside the EU. This will require greater specificity in the definition of these criteria.
1778	9.2.5.2; 3608	We agree that the PS should not include any geographical limitation to the recycling processes.
1783	9.2.5.2; 3626	Full support
1784	9.2.5; 3630	Among the 5 points proposed, several are criteria linked to the recycling infrastructures available. Today, given these criteria, very few textiles can be considered recyclable. Not because of criteria intrinsic to the product, but because of criteria linked to the undeveloped collection, sorting and recycling infrastructure.

ID	Section & line	Comment
1785	9.2.5.2; 3630-3631	How to assess recyclability. Please provide further details on how such a standardised verification system would be developed and by whom.
1786	9.2.5.2; 3630	Please provide further details on how such a standardised verification system would be developed and by whom.
1789	9.2.5.2; 3632-3644	Connecting BC, BAT and BNAT could disadvantage European fiber and textile manufacturing. There must be room for the development of special, innovative fibres and the development of new recycling processes. When you work with recycling processes, you encounter new problems that you need to solve and therefore flexible limit values are required.
1790	9.2.5.3 Description of the product technologies in the context of recyclability; 3632-3641	According to this definition BNAT is less ambitious than BAT, and completely reliant on development of recycling techniques. This is not in line with the ESPR and design guidelines evolved. Instead, BNAT of textile products should strive higher than BAT, easier disintegration, mono-compositions compared to BAT. Even if recycling methods evolve to handle more blended feedstock the output and cost of recycling operations will always be more favorable with less complex textile waste. Link to report found here: Framework for circular textiles - report and classification tool: https://www.ri.se/sv/expertisomraden/projekt/ramverk-for-cirkular-textil
1791	9.2.5.2 (page 133-134); 3632-3644	As noted in the text, the PS has identified certain biases; however, it remains unclear which specific biases have been detailed. Linking recyclability to BC, BAT, and BNAT raises significant concerns for the European fiber and textile industry. This approach risks disadvantaging niche and innovative fibers developed with sustainability in mind, as they may be categorized as BC despite being produced with the latest best-available technologies. A key issue is the underrepresentation of certain fibers in textile waste—an aspect that should be seen as a positive rather than a drawback. Materials should not be marginalized or deemed less viable simply because dedicated recycling processes have yet to be developed for them—particularly when their limited presence in waste streams reflects production volumes rather than recyclability potential. Given that sorting and recycling efforts naturally prioritize the most prevalent textile waste—primarily polyester and cotton—investments in recycling infrastructure tend to focus on materials with the highest scalability. While this is a practical market response, it must not lead to the exclusion of lower-volume fibers.

ID	Section & line	Comment
		Furthermore, the specialized nature of the European textile and fiber industry must be carefully considered. If definitions and regulatory frameworks inadvertently favor commodity materials, they risk disadvantaging sectors that rely on advanced or specialized fiber solutions.
1792	9.2.5.2; 3636-3639	While BAT products can be processes by the techniques highlighted in Table 52, the maturity of the technology, in terms of integration into the market, and global availability needs to be taken into account. The main recycling output is also key for the assessment, as there are potential limitations in quality coming from those recycling techniques, the best example is the mechanical recycling technique, as the recycled fibres are shorter than virgin fibers. Also important to mention that those BAT are not generally using post-consumer textile as a feedstock, as it is stated in the report, the use of post-consumer is challenging due the reason stated in page 41 of the report.
1794	9.2.5.2; 3636-3639	How to assess recyclability. While BAT products can be processes by the techniques highlighted in table 52, the maturity of the technology, in terms of integration into the market, and global availability needs to be taken into account. The main recycling output is also key the assessment, as there are potential limitations in quality coming from those recycling techniques, the best example is the mechanical recycling technique, as the recycled fibres are shorter than virgin fibres. Also important to mention that those BAT are not generally using post-consumer textile as a feedstock, as it is stated in the report, the use of post-consumer is challenging due the reason stated in page 41 of the report.
1795	9.2.5.2; 3636	While the use of mono-materials is widely seen as an enabler of recycling and constitute already 22% of the total garments in the EU market (Resortecs, 2024), it should not become a recyclability requirement, considering the trade-offs that this might lead to, for example a loss of performance or comfort (at the consumer's expense) or inadvertently reducing durability. Furthermore, it is possible to recycle blends of fibres.
1798	Chapter 9.2.5.3; 3637 & Table 51	PE6 and Table 51 "PE6-rich textile apparel"(Line 3637 to 3638) and "PE6 monomers/olygomers" (Table 51) seems to have a typing error, PE6 is not a standard term in chemical fibers, rather the text seems to refer to PA6 (Polyamide 6). Rationale: PE6 is not a standard term in chemical fibers. Recommendation: Changing PE6 to PA6.
1799	9.2.5.3; 3637-3638	We believe there is a typo and that point (3) refers to PA6-rich textiles apparel, not PE6.

ID	Section & line	Comment
1800	9.2.5.3; 3637-3638	We believe there is a typo and that point (3) refers to PA6-rich textiles apparel, not PE6.
1801	9.2.5.3 Description of the product technologies in the context of recyclability; 3642	As per the paragraph “Description of the product technologies in the context of recyclability”, the recycling technologies are linked to specific textile products: As stated page 234 line 3642 –” the definition of these BAT and BNAT establishes some biases in terms of fibre composition and absence of specific components or substances in the product, which does not reflect the technological neutrality pursued in this PS. We would like to underline that it is critical to ensure a technologically neutral approach in ESPR in order to avoid unintended restrictions on technologies as they scale up. This will allow technology developers to provide new technologies in the future to address fibers without any preconceived restrictions.
1802	Chapter 9; 3642	why opt for technological neutrality in this case?
1803	9.2.5.2; 3644	The aspect of technological neutrality is not clearly represented, and it is unclear how Task 6 will address this issue. Could you please provide an explanation?
1805	9.2.5.2; 3644	How to assess recyclability. The aspect of technological neutrality is not clearly represented, and it is unclear how Task 6 will address this issue. Could you please provide an explanation?
1808	9.2.5.4 How to assess recycled content; 3645 - 3682	The industry calls on the JRC and the EC to maintain the original definition of recycled content as outlined in ISO 14021 standard. Modification of the definition only to post-consumer waste will lessen the legal certainty of economic operators and impact the enforcement of recycled content requirements by competent authorities due to lack of adequate verification system, capable to track fibres coming from specific types of textile waste in the final product. Moreover, modification in the definition may also hamper maturity and innovations of the textile recycling, due to limitations of the stock and its commercial use afterwards. Additionally, exclusion of pre-consumer waste will impact negatively the use of recycled materials falling under the scope of the derogations from ban on the destruction of unsold consumer products under Article 24 and those that are outside of the scope – coming from micro and small enterprises. JRC in its report “Developing EU-wide End-of-Waste criteria for textile waste” also considered that the pre-consumer textile waste, becomes equivalent to post-consumer textile waste after being diverted to separate collection.

ID	Section & line	Comment
		In consequence, the industry calls for maintaining the ISO 14021 definition and well recognised industry practices and use the advantages of post-industrial and pre-consumer waste, acknowledged by the JRC itself in its Task 4 analysis.
1809	9.2.5.4 How to assess recycled content,; 3,645 ff.	According to the report, in accordance with the definition of ISO 14021, recycled content should only originate from post-consumer waste. While the recycled content of post-consumer waste is "the gold standard", we disagree to the limitation to post-consumer waste only. Earlier in the report, it is pointed out that post-industrial waste "ranges from 25-45% of all fabric used in the production" (line 3,275) and that "cutting operations are the largest contributor to [post-industrial] waste" (line 3,334). To our knowledge and in contrast to other waste streams (e.g., plastics), the post-industrial waste from textile production, namely cutting waste of the confectioner, is currently in most cases incinerated rather than re-processed. If, for example, in the production of plastic packaging by injection moulding, the post-industrial waste can actually be put back into the machine, then it is right not to declare the material as recycled content. However, the confection process of textile products is not one in which cutting waste can be mixed with the input. Therefore, the recycling of cutting waste decreases textile waste that would otherwise be incinerated and contributes to the efficient use of primary resources. Therefore, the source of material to be used for fulfilling the potential provision of recycled content should be broadened compared to the ISO 14021 definition. Line 3,678 ff: We agree that recycled content (for BAT and BNAT) should be fibre-specific. This is in line with stakeholder discussions hosted by the German Environment Agency. In addition, the report finds that recycled content should be specific to the function of the item. From a theoretical point of view, this is clear as items made of the same fibre can have different functions which require different yarns and fabrics resulting in different spinning techniques with higher or lower potential to include recycled content. This aspect should be further de-veloped and, in particular, practical conclusions should be drawn. While the JRC recognises that setting recycled content requirements for product categories broken down by fibre and function would be disproportionate, the study does not put forward an alternative approach. The finding underlines the need for a clear product categorization which was put forward by us in the first consultation (and again in our comment on the categorisation od textile products). Line 3,422 ff. and line 3,697 ff.: While we understand that the various information in relation to recycled content is distributed in different chapters of the report, e.g. chapter 5.4.1 on fi-bres, we find that information necessary to determine recycled content targets for textile products is lacking in chapters "ecosystem of recyclability and recycled content" (9.2.5.1) and "description of the product technologies in the context of recycled content" (9.2.5.5). We con-sider the following aspects to be important in assessing recycled content requirements: (a) a status quo analysis of the verification schemes of recycled materials from used textiles or post-industrial sources, (b) a risk assessment of contamination with hazardous substances through use of recycled fibres from post-consumer waste, (c) environmental and economic impacts of recycled fibres compared to virgin material (from both, non-sustainable and certified sustain-able sources), (d) the market situation for items/products with recycled fibres (not only the recycled fibres' market) and (e) the possibility to verify and control the use of recycled fibres. Especially due to the increase of imports of non-compliant cheap textiles from third countries, only those requirements should be set that can actually be monitored and technically verified. Otherwise, we see a risk of green washing and a distortion of competition at the expense of compliant suppliers.

ID	Section & line	Comment
		We assume that such aspects will be addressed in the further work of the study, e.g. in the following tasks under the MEErp method. The current study commissioned by the German Environment Agency will also contribute to identifying answers.
1810	1.2.5.4 (Task 4); Table 13	Need to define what is "destruction" in line with WFD. Does it include : recycling, landfil, incineration?
1811	1.2.5.4 (Task 4); Table 13	Need to define what is an homogeneous waste. Your definition include fiber content, but need to be extented to product making. E.g. multi-layer padded jacket : recyclability is lower than single jersey tee-shirt even if they involve mono-content. Also it can include hard points as embrodery, print artworks, bartacks and patches that lower the recyclability.
1812	9.2.5.4; 3646- 3683	The setting and increase of the minimum requirements on recycled content should always take into consideration the need for and availability of a sufficient amount of high-quality secondary raw materials and the existence of the right infrastructure to process them. When it comes to the reflection on the setting of minimum requirements, and in preparation of Task 6, it is important to introduce initial minimum requirements that acknowledge the current reality of the sector and to introduce clauses that allow these minimum requirements to be progressively reviewed and revised every five years. To ensure effective implementation, the next phases should be defined from the outset, allowing the industry to anticipate and work toward them. Without clear targets, there is a risk of inaction, as planning becomes difficult when the long-term objectives are unknown. These should also have transitional timelines to ensure ambitious levels and continuous progress. The initially introduced recycled content requirements should be used as a lever to accelerate innovation and development in the sector, notably on recycling hubs, infrastructure, waste collection schemes, and recycling method, but also to solidify the demand for recycled fibres, despite their higher production costs compared to virgin fibres. The introduction of minimum requirements shall also consider the technical limitations, such as feasibility depending on the type of recycled materials and consider the introduction of instruments to provide flexibility to overcome these limitations and ensure a level playing field.
1813	9.2.5.4; 3646- 3683	We disagree with the exclusion of post-industrial waste from the definition of recycled content. We strongly call on the JRC to evaluate the full impact of excluding post-industrial waste. This decision will have unintended consequences, such as reducing volume of materials available for recycling, increasing landfill and incineration rates , create market distortions, and undermines circularity and transparency goals. Concerns regarding post-industrial waste replacing post-consumer waste are overstated and not acknowledging the realities of the industry. Generating additional waste during production is not commercially viable for suppliers, as it would increase costs and inefficiencies. Furthermore, recycling technologies for post-consumer waste are already commercially available, particularly in Asia, where such systems are in operation. Additionally, the definition of post-industrial waste provided in section 1.2.4 (page 32) is too narrow considering some of the elements mentioned in section 1.2.4.2.1. There, it says post-industrial textile waste increases because of 1) the bullwhip effect, 2) wastage due to limited storage capacity, 3)

ID	Section & line	Comment
		planned overproduction, and 4) cancelled orders. These post-industrial waste categories can hardly be considered “waste generated during the manufacturing”, as there are no machine inefficiencies, cutting losses or production failures. It would be useful to look into industry used definitions, such as the one from Fashion for Good, who define post-industrial waste as that which is generated during manufacturing, and pre-consumer as fully assembled products that have yet to reach the consumer but are considered waste (including returned goods). The second milestone includes arguments that are not well representing the realities of the industry. Notably, the assertion that incorporating post-industrial waste into recycled content incentivises the generation of such waste lacks supporting evidence. The efficiency of processes such as cutting patterns or other production procedures is not influenced by the use of post-industrial waste in recycled fibre production. The recycling of post-industrial waste is often a more controlled process, guaranteeing the quality and safety of input materials particularly on mechanical recycling process, where the presence of legacy chemicals and material traceability are at higher level. Fabric represents a significant cost in textile production; manufacturers naturally aim to minimise waste to reduce costs. If post-industrial waste is reintroduced into the production cycle as recycled material, this effectively doubles the cost of the original fabric, creating a strong financial incentive for manufacturers to avoid generating excess waste, regardless of recycled content targets. It is essential to base such claims on concrete evidence to avoid misinterpretations of the relationship between waste generation and recycling practices.
1814	9.2.5.4; 3646- 3683	It is fundamental to acknowledge the realities of the sector, but also to stress that even if post-industrial waste is not considered as part of recycled content, this will not lead to reducing it, as it will continue to exist due to the fundamental nature of textile manufacturing. Even with optimal cutting patterns, advanced production techniques and better forecasting, fabric cutoffs will inevitably result. Moreover, there is also the element of quality control rejects/defects that will also contribute to the post-industrial waste. The majority of textile-to-textile recyclers are using post-industrial waste as their feedstock today. This is due to the fact that you can access high volumes of clean feedstock. Additionally, the use of post-industrial waste also present quality benefits. More specifically, in mechanical recycling, post-industrial is often required to achieve certain quality and consistent standards, this waste stream is typically cleaner, more homogeneous and less contaminated than post-consumer waste, making it a valuable waste stream for maintaining the integrity and quality of recycled fibres. This in turn will increase the use and incorporation of recycled materials. Excluding post-industrial waste will cause this waste to be landfilled or incinerated and disincentivizes more sustainable options as recycling. The inclusion of post-industrial waste will encourage manufacturers and brands to establish circular systems all throughout their supply chain and not just one section of it. Without this incentive, companies may find it economically unfeasible to invest in systems that collect and recycle post-industrial waste, increasing environmental burdens. Additionally, post-consumer recycling at this stage is limited by the availability and quality of sorting facilities, together with the complexity of the

ID	Section & line	Comment
		waste stream and recycling textile-to-textile at scale. Post-consumer waste infrastructure and networks are still being built, post-consumer requires more processing before it is ready for recycling, so with this infrastructure not being ready at the moment, it is naive to only focus on post-consumer Post-industrial waste inclusion cannot come at the expense of sufficient investment, subsidy and financial incentive to drive improvements in post-consumer recycling. Overall, there is a need to support textiles to textiles content in large-scale products. This should be the main objective and priority.
1815	9.2.5.4; 3646- 3683	The discussion on recycled content as an ecodesign requirement should align with the ESPR framework, particularly Article 25, which prohibits the destruction of unsold goods unless specific derogations apply. Therefore, defining recycled content requirements must consider these derogations and include references to unsold goods (pre-consumer waste), ensuring compliance with Article 25 and the delegated act on the definitions of derogations to the prohibition of destruction of unsold goods.
1816	9.2.5.4; 3646- 3683	The report inaccurately equates pre-consumer waste with unsold goods, which is conceptually flawed for the following reasons: • Definition of Waste: Only unsold goods that are discarded qualify as waste, consistent with the ESPR context and the Waste Framework Directive (WFD) definition of waste. • Distinction from Post-Industrial Waste: Products failing to meet consumer-facing standards should not be conflated with unsold consumer-targeted goods. These products, never intended for retail, should be classified as “post-industrial waste” rather than pre-consumer waste.
1817	9.2.5.4; 3646- 3683	The definition of pre-consumer waste presented in the report “Developing EU-wide End-of-Waste criteria for textile waste” is inconsistent with the framework established by the JRC team working on End-of-Waste on their report “Developing EU-wide End-of-Waste criteria for textile waste”. According to the JRC EoW team, pre-consumer waste is specifically defined as waste generated at the retail level. However, the Task 4 Report broadens this definition to include waste generated during both retail and manufacturing stages. This discrepancy risks undermining alignment with established regulatory frameworks and efforts.
1818	9.2.5.4; 3646- 3683	We call on the JRC and on the Commission to allow for initial flexible recycled sourcing. Textile to textile waste should be prioritised, encompassing post-industrial, post-consumer and pre-consumer waste. However, since there's currently not enough available feedstock to implement recycled textiles from fibres at scale and the introduction of ESPR requirements will add additional pressure to current availability, we suggest the first focus is on investment in technologies and infrastructure for textile-to-textile recycling, with minimum requirements for recycled content to follow upon building further supply. If minimum requirements absolutely must be set now, they should allow using recycled content from non-textile sources; or, alternatively, if limited to textile waste feedstocks, should be set to reflect the realities of current supply. In either case, we support the implementation of reasonable, progressively increasing targets related to textile feedstocks and decreasing use of non-textile sources, and call on the Commission to offer clarity on the next targets. The industry is currently working on having better visibility on the capacity, availability and projections for recycled fibres. Examples is the ongoing study of the Policy Hub on this topic, which aims to reach a conclusion in Q4 2025. Textile Exchange, Fashion for Good, and Reverse Resources are also working on gathering the available data to further substantiate the realities of the sector when it comes to available recycled fibres and capacity for recycling.
1819	9.2.5.4; 3648-3677	It is stated that “The assessment takes into account two main aspects”, one being: “a verification system capable to track fibres coming from post-consumer textile waste”.

ID	Section & line	Comment
		In this context, it is important to note that: Today Textile Exchange (TE) standards do distinguish between pre-consumer and post-consumer feedstock, based on ISO definitions (ISO 14021). However, within the 'pre-consumer' category, there's no differentiation between post-industrial and pre-consumer, as 'post-industrial' lacks a specific ISO definition and is often used interchangeably with pre-consumer within the industry. We strongly encourage the JRC and EU Commission to explore how the industry can rely on existing standards available on the market to avoid costs and additional admin burden.
1823	9.2.5.4; 3649	We suggest amending the text as follows: The availability of recyclable post-industrial waste and textile apparel disposed of as pre-consumer or post-consumer waste.
1825	9.2.5.4; 3650	While textile-to-textile recycling should indeed be the objective, the recyclability of a garment should not be confined solely to T2T recycling, also this goes against the ISO 14021. What are the technical reasons for deviating from an internationally agreed standard like ISO 14021 specifically in the case of textiles? We suggest amending the text as follows: [...] with performances suitable for the use in textile apparel or other products;
1827	9.2.5.2; 3651	Correction: a verification system that can track both post-industrial waste and post-consumer waste streams, given that it is critical to include post0industrial waste into the definition of recycled content.
1828	9.2.5.4; 3651	Correction: a verification system that can track both post-industrial waste and post-consumer waste streams.
1831	9.2.5.4; 3654-3657	Right now, demand is low for recycled fibers. This makes it difficult to scale up and establish new players who recycle fibres. The chicken and the egg effect right now, incentives are needed for it to take off. Development of new fibers/methods always entails a higher cost initially to cover development costs and investments. However, this does not apply to recycled PET from PET bottles, where the raw material is taken from another industry.
1832	9.2.5.4; 3654-3567	The assumption that "only if recyclable textile products are placed on the market, there will be availability of recycled fibres to be used in new items" does not reflect the reality. In fact, the availability of recycled fibres depends not only on the recyclability of textile products but also on market demand. Despite the supply of recycled fibres, many remain currently under-utilised due to insufficient demand from the brands. If the demand for recycled fibres was higher, a more extensive recycling infrastructure would have been in place already.
1833	9.2.5.4 (page 134); 3654-3657	The availability of recycled fibers depends not only on the recyclability of textile products but also on market demand. Despite the presence of high-quality recycled fibers, many remain underutilized due to insufficient demand. This raises a fundamental question: why invest in new recycling infrastructure and recyclable textiles if demand for these fibers remains too low to justify it? Some stakeholders advocate for establishing a recycling infrastructure before implementing recycled content performance requirements, creating a "chicken or egg" dilemma. A more extensive recycling infrastructure would likely already be in place if demand for recycled fibers were higher.

ID	Section & line	Comment
		However, these fibers inherently come with higher production costs, making them more expensive than virgin alternatives. This presents a systemic challenge, as the market tends to adopt recycled fibers only when they reach price parity with virgin materials. An exception is thermo-mechanically recycled polyester from plastic bottles, which benefits from strong demand primarily because it is the most cost-effective option—significantly cheaper than conventional cotton.
1834	9.2.5.4; 3655-3656	New spinning preparation machines, ring spinning and rotor spinning machines have been specifically developed to support the processing of recycled fibres. Technically, these new machines make it possible to use very high proportions of mechanically recycled material, both in rotor and ring spinning. Further projects are underway to develop spinning machines for even better spinnability of recycled fibres. However, some of the shorter recycled fibres are lost during reprocessing in the processes from spinning preparation to textile finishing. This is associated with higher costs for the cleaning and maintenance of the machines used in the textile industry when working with recycled fibres – and therefore with a lower efficiency of machinery and production. The optimum balance between recycled content and durability must be found for each product. Recycled fibres reduce the durability of textiles, which applies to clothing as well as towels, bed linen, etc. However, the longer fibres are in use, the shorter they become. After some recycling cycles mechanically processed fibres will reach a short length which cannot be spun to a yarn again.
1835	9.2.5.4; 3655-3656	New spinning preparation machines, ring spinning and rotor spinning machines have been specifically developed to support the processing of recycled fibres. Technically, these new machines make it possible to use very high proportions of mechanically recycled material, both in rotor and ring spinning. Further projects are underway to develop spinning machines for even better spinnability of recycled fibres. However, some of the shorter recycled fibres are lost during reprocessing in the processes from spinning preparation to textile finishing. This is associated with higher costs for the cleaning and maintenance of the machines used in the textile industry when working with recycled fibres – and therefore with a lower efficiency of machinery and production. The optimum balance between recycled content and durability must be found for each product. Recycled fibres reduce the durability of textiles, which applies to clothing as well as towels, bed linen, etc. However, the longer fibres are in use, the shorter they become. After some recycling cycles mechanically processed fibres will reach a short length which cannot be spun to a yarn again.
1840	Chapter 9; 3657	And even higher performances are possible. As shown by https://enschedetextielstad.nl/
1841	9.2.5.3 Description of the product technologies in the	We highly welcome that the JRC proposes to include in the definition of recycled content only content generated from the recycling of post-consumer waste. In response to strong industry opposition to exclude pre-consumer and of post- industrial textile waste as a source of the recycled content, we want to share further input. We strongly agree with the PS statement that post-industrial and pre-consumer textile waste are often the result of

ID	Section & line	Comment
	context of recyclability; 3658 - 3682	overproduction, overconsumption and can be also attributed to inefficiencies in the production system and we fully support the exclusion of pre-consumer waste as a source. Pre-consumer waste is a result of inefficient planning and design. Additionally, these material offcuts are already repurposed for other uses within existing supply chains. Including pre-consumer recycling in recycled content metrics risks legitimizing poor production practices and undermining genuine circularity. Unless the EU addresses the market failures of the raw materials markets, companies will not be incentivised to invest in recycling technologies and use recycled content from the post-consumer waste stream. We also strongly oppose the inclusion of PET bottles as feedstock for textiles, as its use is not consistent with the principles of a circular economy. PET from packaging is typically part of a different waste stream than textiles, and using it in textiles doesn't contribute to the goal of closing the loop within the textile industry itself. This constitutes clear downcycling, and once PET bottles are recycled into apparel, they can never go back in bottles because they do not meet the food contact materials standards. Additionally, the plastic packaging industry is subject to legally binding recycled content targets. Diverting PET into textiles undermines the recycling goals of another sector while failing to address the issue of microplastic pollution from textiles. Expanding the definition of recycled content to other categories of waste, in line with industry arguments, would divert attention away from the most complex and expensive waste stream to recycle—post-consumer waste—ultimately undermining efforts to address it. To ensure meaningful progress, ESPR should introduce a harmonised definition of high-quality recycling and establish, based on this definition, a ranking of recyclability classes. In such ranking, the highest position (priority) should be attributed to High-quality recycling , that is recycling that ensures that the distinct quality of the material (the polymer, or the alloy, or the glass, or the paper fiber) is preserved or recovered so as to ensure they can be re-used in products with the same market value (compared to the correspondent virgin product) and allows further recyclability of the same quality when reaching their end-of-life. Such a system would encourage clothes-to-clothes recycling rather than downcycling, which does nothing to address the root issue of overproduction and the continuous reliance on virgin materials. We would add that these textile products collected for recycling should be sourced locally/regionally to the fibre recycling site.
1842	9.2.5.3; 3658-3682	We highly welcome that the JRC proposes to include in the definition of recycled content only content generated from the recycling of post-consumer waste. Unless the EU addresses the market failures of the raw materials markets, companies will not be incentivised to invest in recycling technologies and use recycled content from the post-consumer waste stream. Any design option of Task 6 must focus on post-consumer textiles, to ensure a level-playing field among all companies without relying only on a few companies to push forward the recycling innovation and market. This definition is consistent with the objectives of the EU Textile Strategy and with the principles of a circular economy. Recycling post-consumer waste helps to create a closed-loop system for textiles, where the end-of-life product is reintegrated into the value chain. We strongly agree with the PS statement that post-industrial and pre-consumer textile waste are often the result of overproduction, overconsumption

ID	Section & line	Comment
		and can be also attributed to inefficiencies in the production system and we fully support the exclusion of pre-consumer waste as a source. Pre-consumer waste is a result of inefficient planning and design. Additionally, these material offcuts are already repurposed for other uses within existing supply chains. Including pre-consumer recycling in recycled content metrics risks legitimizing poor production practices and undermining genuine circularity. If design options on recycled content allowed for post-industrial waste to be used, then companies would not have any incentive to take responsibility for the waste they contribute to generating. Finally, we also strongly oppose the inclusion of PET bottles as feedstock for textiles and in the design options must never allow the use of PET from packaging as an available feedstock, as its use is not consistent with the principles of a circular economy. PET from packaging is typically part of a different waste stream than textiles, and using it in textiles doesn't contribute to the goal of closing the loop within the textile industry itself. Furthermore, PET from bottles are fit for being kept in a closed-loop recycling system for food contact materials and are subject to extended producer responsibility obligations. Once PET bottles are recycled into apparel, they can never go back in bottles because they do not meet the food contact materials standards. Additionally, the plastic packaging industry is subject to legally binding recycled content targets. Diverting PET into textiles undermines the recycling goals of another sector while failing to address the issue of microplastic pollution from textiles. Expanding the definition of recycled content to other categories of waste, in line with industry arguments, would divert attention away from the most complex and expensive waste stream to recycle—post-consumer waste—ultimately undermining efforts to address it. To ensure meaningful progress, ESPR should introduce a harmonised definition of high-quality recycling and establish, based on this definition, a ranking of recyclability classes. In such ranking, the highest position (priority) should be attributed to High-quality recycling , that is Recycling that ensures that the distinct quality of the material (the polymer, or the alloy, or the glass, or the paper fiber) is preserved or recovered so as to ensure they can be re-used in products with the same market value (compared to the correspondent virgin product) and allows further recyclability of the same quality when reaching their end-of-life. Such a system would encourage clothes-to-clothes recycling rather than downcycling, which does nothing to address the root issue of overproduction and the continuous reliance on virgin materials.
1843	Section 9.2.5.4 How to assess recycled content; Lines 3658 to 3677 on waste types, page 134	In addition of post-consumer, post-industrial waste shall be included i.e. the waste generated during the manufacturing of garments which would be otherwise disposed of. The use of post-industrial waste for recycling has clear advantages, as stated in Table 52, 'Description of Textile Apparel Waste in the Context of Recyclability and Recycled Content.' Therefore, to launch the textile fiber-to-fiber business at scale, it would be highly pdicial to remove a part of the feedstock that contains

ID	Section & line	Comment
		undamaged and clean fibers, has a low degree of heterogeneity, and is easy to process and is for now, partly being disposed of, and thus is a waste of valuable resources.
1844	9.2.5.3; 3658-3682	We highly welcome that the JRC proposes to include in the definition of recycled content only content generated from the recycling of post-consumer waste. Unless the EU addresses the market failures of the raw materials markets, companies will not be incentivised to invest in recycling technologies and use recycled content from the post-consumer waste stream. Any design option of Task 6 must focus on post-consumer textiles, to ensure a level-playing field among all companies without relying only on a few companies to push forward the recycling innovation and market. This definition is consistent with the objectives of the EU Textile Strategy and with the principles of a circular economy. Recycling post-consumer waste helps to create a closed-loop system for textiles, where the end-of-life product is reintegrated into the value chain. We strongly agree with the PS statement that post-industrial and pre-consumer textile waste are often the result of overproduction, overconsumption and can be also attributed to inefficiencies in the production system and we fully support the exclusion of pre-consumer waste as a source. Pre-consumer waste is a result of inefficient planning and design. Additionally, these material offcuts are already repurposed for other uses within existing supply chains. Including pre-consumer recycling in recycled content metrics risks legitimizing poor production practices and undermining genuine circularity. If design options on recycled content allowed for post-industrial waste to be used, then companies would not have any incentive to take responsibility for the waste they contribute to generating. Finally, we also strongly oppose the inclusion of PET bottles as feedstock for textiles and in the design options must never allow the use of PET from packaging as an available feedstock, as its use is not consistent with the principles of a circular economy. PET from packaging is typically part of a different waste stream than textiles, and using it in textiles doesn't contribute to the goal of closing the loop within the textile industry itself. Furthermore, PET from bottles are fit for being kept in a closed-loop recycling system for food contact materials and are subject to extended producer responsibility obligations. Once PET bottles are recycled into apparel, they can never go back in bottles because they do not meet the food contact materials standards. Additionally, the plastic packaging industry is subject to legally binding recycled content targets. Diverting PET into textiles undermines the recycling goals of another sector while failing to address the issue of microplastic pollution from textiles. Expanding the definition of recycled content to other categories of waste, in line with industry arguments, would divert attention away from the most complex and expensive waste stream to recycle—post-consumer waste—ultimately undermining efforts to address it. To ensure meaningful progress, ESPR should introduce a harmonised definition of high-quality recycling and establish, based on this definition, a

ID	Section & line	Comment
		ranking of recyclability classes. In such ranking, the highest position (priority) should be attributed to High-quality recycling , that is Recycling that ensures that the distinct quality of the material (the polymer, or the alloy, or the glass, or the paper fiber) is preserved or recovered so as to ensure they can be re-used in products with the same market value (compared to the correspondent virgin product) and allows further recyclability of the same quality when reaching their end-of-life. Such a system would encourage clothes-to-clothes recycling rather than downcycling, which does nothing to address the root issue of overproduction and the continuous reliance on virgin materials.
1845	9.2.5.4; 3658-3665	We strongly disagree that post-industrial waste is a result of overproduction or inefficiencies. The industry has a strong incentive to limit post-industrial waste as much as possible as this is an economic loss for the business and we disagree that including post-industrial waste would create an incentive for business to produce more if it. There is a clear economic benefit for brands and suppliers to strive for the highest material efficiency and optimisation of processes, thus minimizing post-industrial cutting waste. The efficiency of processes, such as cutting patterns or other procedures, will remain unchanged even if post-industrial waste is used to produce recycled fibres. This is primarily due to economic factors; the original fabric incurs a cost. Reintroducing post-industrial waste into recycled fibres would effectively mean incurring this cost twice, prompting the industry to avoid such practices in favour of maintaining efficiency. Nonetheless, utilising post-industrial waste in recycling processes is crucial for several reasons: (i) Given the inherent nature of the textile production processes, some waste is inevitable, and landfilling should be avoided. (ii) Its use is essential to meet certain quality requirements, particularly in mechanical recycling - produced in line with the latest environmental standards (including chemical restrictions), and can therefore help scaling textile to textile recycling technologies, as is one of the overall objectives of the EU Strategy for Textiles. As correctly identified in the preliminary study, post-industrial waste is a waste stream with very limited availability and will become even more limited in the future. Therefore, relying on post-industrial waste alone to meet future recycled content targets will not be possible. The sector instead considers post-industrial waste as a steppingstone towards the recycling of post-consumer waste.
1846	9.2.5.4; 3658-3665	We strongly disagree that post-industrial waste is a result of overproduction or inefficiencies. The industry has a strong incentive to limit post-industrial waste as much as possible as this is an economic loss for the business and disagree that including post-industrial waste would create an incentive for business to produce more if it. There is a clear economic benefit for brands and suppliers to strive for the highest material efficiency and optimisation of processes, thus minimizing post-industrial cutting waste. Reducing and minimizing waste by focusing on material and pattern efficiency is a key priority, not only to us, but the overall industry. In the process of securing that apparel products have the right fit and adequate sizing for customers, there will always be some post-industrial waste from garment production. A resource of great economical value risks being lost if it is not accepted as recycled content.

ID	Section & line	Comment
		Today, the industry has identified this waste stream as a very attractive waste feedstock for recycling, as it is a waste feedstock of reliable quality, produced in line with the latest environmental standards (including chemical restrictions)– and can therefore help scaling textile to textile recycling technologies, as is one of the overall objectives of the EU Strategy for Textiles. As correctly identified in the preliminary study, post-industrial waste is a waste stream with very limited availability and will become even more limited in the future. Therefore, relying on post-industrial waste alone to meet future recycled content targets will not be possible. The sector instead considers post-industrial waste as a steppingstone towards the recycling of post-consumer waste.
1847	9.2.5.4; 3658-3677	We highly welcome that the JRC proposes to include in the definition of recycled content only content generated from the recycling of post-consumer waste. Unless the EU addresses the market failures of the raw materials markets, companies will not be incentivised to invest in recycling technologies and use recycled content from the post-consumer waste stream. Any design option of Task 6 shall focus on post-consumer textiles, to ensure a level-playing field among all companies without relying only on a few companies to push forward the recycling innovation and market. This definition is consistent with the objectives of the EU Textile Strategy and with the principles of a circular economy. Recycling post-consumer waste helps to create a closed-loop system for textiles, where the end-of-life product is reintegrated into the value chain. We strongly agree with the PS statement that post-industrial and pre-consumer textile waste are often the result of overproduction, overconsumption and can be also attributed to inefficiencies in the production system and we fully support the exclusion of pre-consumer waste as a source. Including pre-consumer recycling in recycled content metrics risks legitimizing poor production practices. On the other hand, the JRC should consider measures to improve production efficiency, such as pattern efficiency, to reduce waste generation. If design options on recycled content allowed for post-industrial waste to be used, then companies would not have any incentive to take responsibility for the waste they contribute to generating. Finally, we also strongly oppose the inclusion of PET bottles as feedstock for textiles and design options must never allow the use of PET from packaging as an available feedstock, as its use is not consistent with the principles of a circular economy. PET from packaging is typically part of a different waste stream than textiles, and using it in textiles doesn't contribute to the goal of closing the loop within the textile industry itself. Furthermore, PET from bottles are fit for being kept in a closed-loop recycling system for food contact materials and are subject to extended producer responsibility obligations. Once PET bottles are recycled into apparel, they can never go back in bottles because they do not meet the food contact materials standards. Additionally, the plastic packaging industry is subject to legally binding recycled content targets. Diverting PET into textiles undermines the recycling goals of another sector while failing to address the issue of microplastic pollution from textiles. Expanding the definition of recycled content to other categories of waste would divert attention away from the most complex and expensive waste stream to recycle—post-consumer waste—ultimately undermining efforts to address it.
1848	Section 9.2.5.4 How to assess recycled content; Lines 3658 to	The stakeholder agrees that the recycled material content targets as part of the ESPR should mainly come from post-consumer products; yet further recommends to specify the following realistic recycled content targets in order to support a strong EU textile industry while maintaining global trade: a minimum of 15% recycled content in the final fabric, with at least 50% (7.5% minimum) sourced from waste collected and recycled within the EU (the

ID	Section & line	Comment
	3677 on waste types, page 134	remaining 50% can come from other sources). To ensure long-term competitiveness of the EU recycling industry, the target on waste collected and recycled within the EU could be reviewed and increased every 3 years. This to align with the growing EU-based post-consumer recycling capacity.
1850	9.2.5.4; 3660-3662	There is neither objective evidence, nor rationality that can justify a difference between, on the one side post-industrial and pre-consumer waste, and on the other side, post-consumer, when it comes to overproduction and overconsumption. We suggest deleting this sentence: 'Although post-industrial and pre-consumer textile waste have evident technical advantages when they are used to produce recycled fibres, they are often the result of overproduction, overconsumption and can be also attributed to inefficiencies in the production system'.
1851	9.2.5.4; 3660-3665	We strongly disagree with this reasoning. What evidence supports the claim that incorporating post-industrial waste into recycled content promotes the creation of such waste? We strongly disagree with this assertion. The efficiency of processes, such as cutting patterns or other procedures, will remain unchanged even if post-industrial waste is used to produce recycled fibres. This is primarily due to economic factors. In the production of high-quality materials, it must be considered that the raw materials used in industrial production generally has a cost proportional to its quality and scarcity, and inefficiencies in industrial systems are expensive. Assuming overproduction solely for recycling purposes is unreasonable. No company has the objective of increasing or incentivizing the production of post-industrial waste. The less post-industrial waste there is, the greater the production yield and the lower the production costs. Reintroducing post-industrial waste into recycled fibres would effectively mean incurring this cost twice, prompting the industry to avoid such practices in favour of maintaining efficiency. Rather, excluding from the ESPR the possibility of using such waste (including that resulting from production incidents) for material recovery through recycling would be highly detrimental, as it would result in generating additional non-reusable waste. Utilizing post-industrial waste in recycling processes is crucial, as due to the inherent nature of the textile production process, some waste is inevitable, and landfilling should be avoided; and its use is essential to meet certain quality requirements, particularly in mechanical recycling.
1852	9.2.5.4; 3660-3664	No manufacturer of textiles wants a high proportion of production waste as it reduces profitability! This type of waste must also be taken and taken care of and recycled so that it does not burn or end up on landfill.
1853	9.2.5.4; 3660-3664	Post-industrial textile waste must be included in the EU's definition of recycled materials. Where else will this fraction go – incinerated or end up in landfill! Waste of resource!!! This waste will always be there even though AI and computer models today are very efficient at posting patterns on fabric so that the amount of waste is as small as possible. Excluding post-industrial textile waste will no as possible. Excluding post-industrial textile waste will not lead to the disappearance of this volume. Although the largest volume of post-industrial textile waste is found outside the EU area, it is still our problem as we buy the largest amount of clothes from non-EU countries. We want to see that the raw material comes from different streams from all the textile waste that exists. As it looks today, the brands will use the cheapest recycled fiber, i.e. re-Pet from PET bottles that are often purchased from countries outside the EU.

ID	Section & line	Comment
		Post-industrial textile waste will continue to be in focus, but one does not exclude the other. Especially not at first, as there is no post-consumer textile waste to be obtained in large volumes and with the "right" fiber fractions. There is a great need to set up a framework for textiles and classification boundaries.
1855	9.2.5.4; 3660-3677	The updated definition of recycled content proposed by the JRC and its ambitious approach to consider post-consumer textile waste (PCTW) is duly justified, as all efforts should be put in ensuring proper end-of-life treatment for PCTW: The mandatory separate collection of used textiles in the EU as of 1st January 2025, is likely to dramatically increase the number of textile waste collected, the volume of non-reusable used clothing, and thus the infeed for textile recycling facilities. Janmark, et al. (2022) “Scaling textile recycling in Europe-turning waste into value” (McKinsey Apparel, Fashion & Luxury Group), estimated that the recycling rate for textile waste will increase from around 10% in 2020 to 33% in 2030 due to i.a. more accurate automated fibre sorting and the further development and upscaling of new recycling technologies. It is crucial to keep a narrow definition of recycled content, and to exclude from this definition 1) bio-based materials, and 2) open-loop recycled content from PET bottles. 1. While the use of bio-based materials can indeed help reducing the use of virgin fossil-based synthetic materials (as stressed by Harmsen et al., 2025), the approach must always be to treat bio-based and recycled materials separately. If bio-based materials are counted as recycled content, it would reduce the incentive to use recycled textiles from PCTW, thus undermining circular economy principles. Including bio-based content as “recycled” might also mislead consumers. 2. In case of a wider definition of recycled content that would include PET bottles, brands would be likely to source the cheapest recycled fibers available on the market, most of the time recycled polyester coming from PET bottles and produced in recycling facilities outside the EU. That scenario would go against the ambition to make the textile industry fully circular. Although we strongly support the introduction of mandatory recycled content from PCTW, the JRC should also consider that current more mature recycling technologies also produce recycled content from post-industrial textile waste (PITW) (as PITW, such as fabric cut-offs, currently offers a more accessible and stable feedstock with lower contamination levels). PITW still needs to be managed, and would help increase textile recycling capacities in the EU and put in place business processes which would make higher PCTW requirements easier in a few years. However, in the long term, it is crucial to make sure that the generation of PITW should not be further incentivized (as rightly stressed by the JRC) but rather minimized.

ID	Section & line	Comment
		Therefore, recycled content should mainly come from PCTW generated in the EU (since, as rightly highlighted by the JRC in section 10.2.8, PCTW account for about 85% of total textile waste), without fully excluding PITW generated in the EU (for traceability reasons). To give the European closed-loop post-consumer textile recycling sector a chance to scale up, we call for 15% mandatory recycled content requirement, out of which: 1. A minimum of 85% coming from PCTW generated in the EU, and 2. A maximum of 15% coming from PITW generated in the EU. Both requirements should be reviewed every five years: on the one hand the requirement for recycled content coming from PCTW should be adjusted upward. On the other hand, the requirement for recycled content coming from PITW should be reduced over time. Source: A recent study by Resortecs (2024, "Is a recycled content target of 15% within reach for Europe?") (focused on recycled content sourced from collected textile waste within the EU over the next decade) highlights "the tangible potential for achieving significant levels of recycled content in new apparel products": while they consider that a recycled content target of 15% is "within reach", they consider that the projected recycled content target could soar to 43% over the next decade.
1856	9.2.5.3; 3660	Narrowing the recycled content down to post-consumer content would be harmful for the circularity efforts, as the recycling industry is currently not mature enough to deliver the necessary amounts of recycled post-consumer material at scale. Post-industrial recycled content should be recognised, as it is already well-integrated in the industrial processes and its production cannot be avoided (e.g. cut offs). A lack of inclusion of post-industrial content would thus lead to unnecessary waste, contrary to the aims of the ESPR legislation. In addition to that, post-industrial waste recycling now plays an important role in efforts to improve and scale up post-consumer recycling solutions. Similarly, recycled PET bottles have an important role to play as an intermediary technology - allowing the recycling industry to mature and develop other solutions at sufficient scale.
1858	9.2.5.4 (page 134); 3660-3664	Our experience with pre-consumer textile waste is limited, but we have considerable knowledge in managing post-industrial waste. No textile or garment manufacturer intentionally designs its production processes to generate excessive waste—on the contrary, every effort is made to optimize material usage. Beyond economic considerations, waste prevention is a fundamental industry priority, with efficiency and resource optimization at the forefront. The inclusion of post-industrial textile waste as a source of recycled content for new apparel will not incentivize the generation of such waste. Rather,

ID	Section & line	Comment
		it should be encouraged, as it ensures a stable supply of unavoidable textile waste generated during manufacturing. This waste serves as a valuable resource, particularly when post-consumer textile waste is scarce, preventing it from being disposed of in landfills or incinerated.
1859	9.2.5.4 (page 134); 3660-3664	Post-industrial textile waste should be included in EU recycled content requirements, as it provides a stable and unavoidable waste stream, reduces landfill and incineration, and supports circularity—particularly when post-consumer textile waste is scarce. Excluding it will not eliminate this waste but will result in its management at a lower level of the waste hierarchy. As long as Europeans continue purchasing apparel, post-industrial textile waste will inevitably be generated, predominantly outside the EU, where much of the production takes place. Given its unavoidable nature, it is our responsibility to ensure its effective utilization. A broad, generic recycled content requirement risks unintended consequences. Brands may prioritize the most cost-effective recycled fibers—often PET bottle-derived polyester from facilities outside the EU—undermining the ambition of a fully circular textile industry. While post-consumer textile waste should be prioritized to address Europe's growing textile waste, post-industrial waste, such as fabric cut-offs, currently offers a more accessible feedstock with lower contamination levels. This ensures recyclers have a stable material flow that meets quality and raw material standards.
1863	Section 9.2.5.4; lines 3661-3665	1.Post-Industrial Waste: The study suggests a restriction on counting post-industrial waste (e.g., fabric scraps or spinning waste) as recycled content in garments. While the intent is to discourage waste generation in the production process, this measure overshoots its purpose, inadvertently hindering circularity by preventing the reuse of valuable and unavoidable by-products.
1864	9.2.5.4; 3662-3664	The sentence is devoid of any plausible justification. This sentence should be deleted: 'The inclusion of post-industrial textile waste as a source of the recycled content for new textile apparel could incentivise the generation of this type of waste'.
1865	9.2.5.4; 3662-3664	We do not agree with this assertion. The textile producing and processing industry is a global and highly competitive market. Material consumption is an economic factor, i. e. efficiency in production pays off. The recycling of production waste offers the possibility of recovering easily identifiable (unmixed) materials, which is why the recycling of unavoidable production waste should be recognised. What will happen with post-industrial waste of weaving, warp knitting, knitting and during confectioning? Who will recycle it any more if the resulting fibres will be more expensive than virgin material but not recognised as recycled content? We believe that this would be contrary against the main objective to create a recycling value chain in Europe and will disrupt the progress made so far in the recycling industry.

ID	Section & line	Comment
1870	9.2.5.4; 3663-3665 3670-3671	The assumption that inclusion of post-industrial textile waste as a source of recycled content could incentivize the generation of this type of waste, is flawed. Companies are incentivized by efficiency and would unlikely be willing to create waste in their supply chains. Additionally, this waste is always going to exist, e.g. cutting waste will exist due to ensure proper fit, due to errors in the material production or treatment process, and exclusion of post-industrial waste from recycling would leave no viable options for use of this material other than landfill.
1871	9.2.5.4; 3663-3664	We would like to refute the JRC's concerns that including post-industrial waste could cause an incentive for the overproduction of this waste. It's important to recognise that post-industrial waste like cut-and-sew, control rejects, and defects, is an unavoidable waste and has been a waste generated since before the recycling industry has started to scale. Research indicates that production spills are unlikely to fall below 10-15%, even with best practices implemented (https://openresearch.ocadu.ca/id/eprint/3797/1/Vyas_Hetvi_2022_MDes_SFI_MRP.pdf). Moreover, efficiency practices trying to minimise this waste primarily aim to reduce costs and improve profitability, rather than meet external policy requirements. Key factors affecting revenue, such as material costs, labor expenses, overhead, inventory, and waste management, are not directly influenced by recycled content requirements. Including post-industrial waste in recycled content definitions (and mandates) will not cause manufacturers to generate more waste. Instead, it helps to formalise and scale a necessary recycling pathway for an already existing resource stream. In fact, excluding this clean, inevitable, and homogeneous waste stream from the recycled content definition may have unintended negative consequences. It could lead to this waste being redirected to downcycling, or even incineration or landfilling, ultimately causing greater environmental harm.
1872	9.2.5; 3663-3664	We also refute the concern that including post-industrial waste could cause an incentive for overproduction of this waste. This is a waste stream that will always continue to exist, research shows that there is a loss of 10-15% in the production process leading to this waste stream. The primary intention behind production efficiency practices and methods, such as demand forecasting and AI optimized cutting patterns, are aimed at reducing costs and improving profitability; rather than meeting any external policy targets such as recycled content targets. Factors like material costs, labour expenses, overhead, inventory and waste management are tied to bottom line and not directly influenced by whether or not there is a recycled content mandate. So companies are not cutting more or less fabric waste because of recycling targets, they are refining processes to reduce costs and increase profitability. https://bren.ucsb.edu/sites/default/files/2024-04/Examining%20Cut-and-Sew%20Textile%20Waste%20within%20the%20Apparel%20Supply%20Chain%204.10.24.pdf Here they say that 10-15% of waste is happening, they are using data from 2008 / 2015.

ID	Section & line	Comment
		WRAP - Valuing Our Clothes: the Cost of UK Fashion (2017). Finds that 15% of fabric intended for clothing production becomes cutting waste. This report's analysis highlights how widely acknowledged cutting waste is and also highlights the difficulty of reducing it below 10-15%. Ellen MacArthur Foundation - A New Textiles Economy (2017). They say 12% is lost during cutting and production. This is consistent with some other reports, again showing that there is a clear baseline of avoidable waste in this manufacturing stage. Assessing the Environmental Impact of Textiles and the Clothing Supply Chain (Ed. Subramanian Senthilkannan Muthu) - this book shows that 10-20% is the typical cutting loss in conventional garment factories.
1873	9.2.5.4; 3665	The sentence 'Furthermore, this textile waste type is also the only one that is not specifically regulated' appears incorrect because all textile wastes classified (e.g. EWC 040209, EWC 040221, EWC 040222, etc.) must be managed, in Europe, according to requirements of the Waste Framework Directive. We suggest deleting this sentence.
1874	9.2.5.4; 3665	This PS tells that post-industrial waste is not specifically regulated, but we can receive proofs as transaction certificates (from GRS label, RCS, etc) to trace and prove the incorporation of recycled post industrial waste.
1876	9.2.5.4; 3670-3671	As already elaborated above, this statement is unfounded and does not reflect the practical realities. We suggest deleting it.
1877	9.2.5.4; 3670-3671	The statement is unfounded and does not reflect the practical realities of retail and manufacturing operations. Retailers and manufacturers are driven by profitability, and it is highly unlikely that they would intentionally create waste simply to recycle it. Instead, the primary commercial motivation is to minimize waste in the production process and reduce costs.
1883	9.2.5 Recyclability and recycled content; 3674	Indeed it is crucial to define and narrow down the scope of feedstock eligible fto be considered for recycled content, in particular to disincentivize the downcycling of food-grade PET (from bottles for instance) into textiles.Also, post-industrial materials are mostly co-products or by-products which could wrongly be named waste in case the definition is not clear enough - although a few unavoidable waste does occur, eg selvedge in the weaving process which could benefit by being recognized as feedstock for recycled content on lesser value items). In all cases it will be very important to enforce this definition and scope to standards and voluntary labels to avoid misleading claims.
1884	9.2.5.1; 3674-3677	We strongly recommend that JRC maintains the ISO 14021 definition of recycled content, ensuring both post-consumer and pre-consumer waste are included. Restricting the definition to only post-consumer waste would undermine existing recycling efforts. Fiber-to-fiber recycling is not yet scaled, and we recognize that strong incitements are needed to drive demand for closed-loop recycled fibres, as they face strong competition from well-established supply chains producing recycled fibers from pre-consumer and open-loop sources (mainly PET).

ID	Section & line	Comment
		However, maintaining access to pre-consumer and open-loop sources is crucial, as these well-established supply chains currently provide the most reliable and scalable source of recycled fibres. Limiting their use could slow progress toward circularity by reducing the availability of recycled materials needed to meet market demand. While we support boosting closed-loop recycling, this should not be done by altering the ISO definition or differentiating between open-loop and closed-loop fibers in their recycled status. Instead, we suggest exploring whether such differentiation could be integrated into eco-modulated requirements under the Extended Producer Responsibility (EPR) framework for textiles. To leverage existing recycled fiber capacities, we propose introducing an initial performance requirement—a mandatory minimum threshold for market entry at the global portfolio level—along with product-level information requirements. A portfolio-level approach would accelerate adoption, allowing recycled materials to be allocated to product types that can utilize them best, while also enabling brands to consider functionality and durability. A global portfolio-level requirement for recycled content, will allow flexibility while ensuring scalability and market adoption.
1885	9.2.5.4; 3674-3677	We welcome the effort of defining recycled content, as we believe regulating recycled content via a target under ESPR for textiles apparel will be critical to speed up progress, development and investment in textile-to-textile recycling. However, this requirement must strike the right balance of aspirational and realistic. Some key considerations we recommend the JRC to take on are: • The share of recycled materials from textile-based feedstocks remains under 1% of all fibers used (2023 Textile Exchange Benchmark Factsheet.) While we need to scale up the use of textile-based feedstocks and move away from PET bottles/open loop recycling as rapidly as possible, this will not be an instantaneous shift. A complete cutoff of the use of bottle-based feedstocks now, without adequate availability of textile-based feedstocks, would lead to the unintended consequence of an increase in sourcing of virgin fossil-based synthetics, which would increase carbon emissions. These should have transitional timelines to ensure ambitious levels and continuous progress. • We also caution against only setting regulation on recycled content, as this could have unintended consequences such as increased use of synthetic materials. We recommend including eco-design targets for “sustainably-sourced renewable material” content alongside recycled, to ensure that regeneratively and organically grown virgin materials (those with proven lower impacts e..g organic cotton) are also considered by the delegated act on textile apparel as preferable options. • Textile Exchange recommends setting these targets related to raw materials at the materials portfolio level, rather than at the product level, given the wide variances in product types and performance requirements across and within product categories. This would allow brands to balance known

ID	Section & line	Comment
		trade-offs between durability and recycled content. • Such targets could be set on a material level e.g. % for cotton, % for polyester that brands need to meet on an annual basis. This is also how brands are often already approaching target-setting within their companies today. Textile Exchange is collaborating with Fashion For Good and Reverse Resources to consolidate data on available waste feedstock, Textile-to-Textile (T2T) recycling capacity, and global fiber production to enable the estimation of T2T recycled fiber production and 2030 projections for apparel & home textiles. The project Project "Approach to Textile-to-Textile Recycled Fiber Availability Data for Apparel & Home Textiles" has key objectives, including informing thoughtful, realistic target-setting by policymakers, industry organizations such as Textile Exchange, and other stakeholders - related to recycled fiber usage in the industry, prevent the development and implementation of unrealistic targets for the industry. We are expecting first conclusions by September 2025 and believe this could inform the European Commission is setting ambitious and realistic recycled content target. We would welcome the opportunity to discuss this initiative further, address any questions, and present our study and objectives at an upcoming Ecodesign Forum meeting, in which we have been appointed members. The project brief has been sent to the JRC by email, as a complementary input to this webform.
1886	9.2.5.4; 3674-3677	We recommend that targets are set on a portfolio level in terms of the materials a company is using, rather than on an individual product level. In our view, setting recycled content targets focused on textile-to-textile inputs at an individual product level will be extremely challenging for a number of reasons, including: • The wide variety of products and functional requirements. • The number of different materials, linings, trims, and components which can appear on each individual product. • Different sizing and shaping of textile products and garments. • Targets set at portfolio level would enable the ability to “flex” the amount of recycled content used within products/lines while still achieving an overall target; for example, using more recycled content in certain product lines to compensate for using less in other product lines due to functional requirements, durability concerns, or other specifications. Targets set at individual product level would not allow for this. • Given the complexities above, target-setting and measurement at portfolio level would encourage a higher level of ambition, whereas a product-level target could lead to a lower level of ambition, with companies only focused on meeting minimum requirements. Please note that while we support setting targets at portfolio level, we also support the need for robust information requirements at product level.
1887	9.2.5.4; 3674-3677	We understand the legitimate concern of overproduction, but it does not support the definition of recycled contents covering only textile-to-textile recycling and post-consumer waste. We believe that the JRC approach goes against the main objectives which are to create a recycling value chain in

ID	Section & line	Comment
		Europe and to valorise textile waste and would significantly damage the European fibre supply chain. Currently, the availability of post-industrial waste (a rather small fraction of the total waste volumes) is the only certain feedstock for recycling, while post-consumer recycled material is not, for example, due to quantities and quality of the collected materials, sorting and recycling capacities. This stream is already industrially scaled up and not including it will disrupt the progress made so far in the recycling industry. We also need to consider that pre-consumer waste may in the future be available for recycling, falling within the derogations from the ban on destruction of unsold products, and should be included as well. Allowing the inclusion of post-industrial and pre-consumer waste could benefit the quality of recycled fibres and the products that contain them. Access to these waste streams expands the pool of available materials for recycling, ensuring a more consistent and reliable supply of feedstock. It also needs to be considered that such waste will be available, and the rules should be flexible to valorise it. The definition of recycled content should not be limited to recycled fibres coming from apparel disposed of as post-consumer waste but should also include fibres from other disposed textiles (e.g. home textiles and technical textiles). Both open-loop recycling and closed-loop recycling must be allowed. It is necessary to consider the opportunity to integrate forms of open loop recycling, even in symbiosis/hybridization with the closed loop. While agreeing that efforts on textile-to-textile recycling shall be prioritized, we believe that PET bottle-to-fibre should remain an accepted option in the transition phase. Although there are already initiatives to enable textile-to-textile recycling, techniques to reach this objective still require substantial effort and scaling-up from a quality and quantity perspective. There are cases where PET bottle-to-bottle recycling is forbidden or not possible, mainly for reasons of material purity, and PET bottle-to-fibre recycling is a valuable alternative to incineration or landfilling. High-quality bottle flakes that are suitable or certified for food contact should not be processed into yarn – in other words, bottle-to-bottle recycling should be favoured. Additionally, a differentiation must be made between the available market shares (T2T, rPET bottles). The differences between the types of recyclate must be guaranteed, as recycled materials from textiles that are produced in the EU are far too expensive and are not in proportion to the procurement of virgin fibres. The economic efficiency and availability are not critically assessed in this study, which promotes a distorted view. Current discussions are fundamentally only about the availability of RPET and are not representative. There must be significantly more basic information on economic procurement and sourcing options. In fact, there are efforts ongoing in the recyclate market purely made up of textile-to-textile waste, and while it is projected to fast develop, it is currently in infancy and not sufficiently large.
1888	9.2.5.4; 3674-3677	There is no justification to exclude recyclable post-industrial waste that accounts for 11% of the total textile waste. We suggest amending the text as follows:

ID	Section & line	Comment
		Following the two aspects reported above, the recycled content is the proportion, by mass, of recycled fibres coming from recyclable post-industrial waste and textile apparel disposed of as pre-consumer or post-consumer waste.
1889	9.2.5.4; 3674-3677	The stakeholder strongly supports narrowing down the definition of recycled content to post-consumer waste only. This is needed to improve the management of end-of- life post-consumer textiles, which is a heterogeneous flow for which the waste hierarchy is not properly implemented to date. On one hand, to support textiles recycling, a textile-to-textile target is essential to support textile recycling. On the other hand, if this target is extended beyond post-consumer waste, the target will be diluted in the sense that there will be no incentive to invest in a 'problematic flow' if one can choose to 'pull' and reach targets with an easier and cheaper source. This will ruin the chance to recycle and reincorporate post-consumer textile waste because the collection, sorting and the preparation of that feedstock will be very expensive compared to other sources, such as post-industrial feedstocks (and of course, rPET).
1890	9.2.5.4; 3674 - 3677	The proposed definition of recycled content should support the transition to a circular textile industry. Currently, post-consumer textile waste is not available at scale or with the necessary quality. Even though we understand the focus on post-consumer textile waste once collection and sorting systems are sufficiently in place, the recycled content requirements should also include post-industrial textile waste to secure that the emerging Textile-to-textile industry can establish and scale fast enought to support the overall goals in the EU Textile Strategy. Since large-scale recycling facilities require over 50,000 tonnes annually of waste feedstock to remain globally competitive, it is critical that legislation ensures that recyclers are enabled access to broad sources of textile waste feedstock. Allowing post-industrial textile waste as recycled content feedstock in a transition phase is absolutely critical to build a European Textile-to-textile industry at scale. We cannot achieve the ideal post-consumer textile waste recycling scenario in one step; therefore, we can take an incremental approach. This could be combined by establishing a transition period with intermediate milestones that gradually increase the share of post-consumer waste in recycled content targets over 10+ years. Although recycled content targets will be critical, these will have to be combined with the following regulative support: • Defining and regulating recyclability principles to improve post-consumer recyclability (e.g., banning non-recyclable fiber blends that cannot be recycled with existing or near future technology / also relevant for section 9.2.5.2). • Designing EPR regulations and other financing mechanisms to support waste collection and sorting.

ID	Section & line	Comment
		• Finally, incentivizing consumers to use textile waste collection systems is critical to ensuring a reliable supply of post-consumer waste for textile recycling. This is critical as post consumer textile waste is not available for recycling today in the EU.
1891	9.2.5.4; 3674-3677	When defining recycled content performance requirements under ESPR, it is focal to include post-industrial waste into the definition: • The preparatory study argues against the inclusion of post-industrial textile waste as a source simply because it could incentivise the generation of this type of waste. This is not a valid argument as fabric manufacturing comes with X cost for brands and manufacturer that is inclusive of inputs, wages, utilities, compliance etc. Post industrial waste can be reduced overall, but it will always be generated. The argument of incentivisation does not make economic sense for any of the players involved. • Today, we are still seeing evidence that it is challenging for textile recyclers to scale. They are dependent on all waste resources (pre and post) to test, calibrate and scale their technologies. It is unfortunately to date unrealistic to build a system based only on post-consumer waste feedstock. However, recyclers see port-consumer waste feedstock as a highly interesting feedstock source to ensure sufficient volumes for their operations in the long run, as post-industrial/pre consumer waste feedstock by default is limited. • Leaving out post-industrial feedstock would discount savings made in energy and water in the production process. • Critical to adopt legislation that is feasible for all actors and regions globally to meet: Accepting both post-industrial and post-consumer waste feedstocks would be such an approach. • Overall, there is a need to increase the demand for recycled content (post-consumer specifically) i.e. legislation must find a balanced approach between supply of feedstock and creating demand for recycled content. • There is also the need for an incremental approach considering the time needed for just transition for communities and suppliers involved in production of virgin materials including regenerative raw materials and the vast number of SMEs in the value chain. When calculating recycled content, to effectively reach the objectives of the ESPR and the EU textile Strategy, a portfolio-level approach will be critical to balance for the known trade-offs between eco-design measures whilst at the same time effectively scale recycling: However, calculating recycled content based on mass-balance could be an intermediate solution under the ESPR, however, there are some critical conditions to this approach must take into account to be credible. Mass balance could be the minimum level of traceability for recycled feedstocks on the condition that there is no credit transfer within or between companies or sites. There must be a real physical flow of the recycled raw material connecting the producer of the raw material and the production site. Important to note that mass-balance should never be the end goal and therefore, long term there should be better traceability options, including fully segregated and identity preserved. This is very important and a prerequisite to be able to assess risks and impacts connected to recycled materials as well as to make credible recycled content claims as well as complying with eco-

ID	Section & line	Comment
		design requirements.
1892	9.2.5.4.; 3674 ff	"A differentiation must be made between the available market shares. The differences between the types of recyclate must be guaranteed, which is not the case and will not be in the future. Possible recycled materials from textiles that are produced in the EU are far too expensive and are not in proportion to the procurement of virgin fibres. The economic efficiency and availability are not critically assessed in this study, which promotes a distorted view. Current discussions are fundamentally only about the availability of RPET and are not representative. There must be significantly more basic information on economic procurement and sourcing options. In fact, there is no established recyclate market that is purely made up of textile-to-textile waste. It is possible to look at other industries, such as raw materials obtained from RPET bottles, but a differentiation must be made here; the dimensions are not differentiated. See also comments (3573-3631)"
1893	9.2.5.4; 3674-3677	We endorse the JRC's proposal for a closed-loop approach to textile recycling in defining recycled content, aligning with ESPR's overarching aim of addressing post-consumer waste. However, we strongly advocate for including post-industrial waste and ESPR-compliant pre-consumer waste (pre-consumer waste compliant with the derogations of the ban on destruction of unsold goods) in this definition due to several critical factors. Currently, the sector cannot source exclusively from post-consumer waste due to infrastructure constraints and material availability. Without inclusion of post-industrial waste, it will be significantly more difficult for recycling technologies to secure capital investments, scale up and stabilise production, achieve cost reduction through scale efficiencies and solve the commercial model. All of these investments are necessary steps to ensure sufficient scaling of the industry. The focus exclusively on post-consumer waste at this stage is particularly concerning given that the textile sorting industry in Europe is already at the brink of collapse. (https://www.innovationintextiles.com/soex-group-files-for-insolvency/) Collection, sorting and recycling actors will face even more pressure if demand for recycled material will only be sourced from post-consumer waste. Including only post-consumer in the definition of "recycled content" is particularly concerning due to the lack of effective separate collection of post-consumer textile waste which has hindered the effective scaling of post-consumer systems. (https://www.eionet.europa.eu/etcs/etc-ce/products/etc-ce-report-2024-5-textile-waste-management-in-europes-circular-economy) While the revision of the Waste Framework Directive (WFD) aims to address some of these challenges, it will not suffice to solve the problem. As highlighted in the White Paper by ACR+, Zero Waste Europe & Rreuse (https://www.acrplus.org/en/news/textile-emergency-action-plan-needed-quickly-emergency-funding-to-prevent-the-collapse-of-textile-collection-sorting-reuse-and-recycling-in-the-eu-4635), sorters are currently overloaded and

ID	Section & line	Comment
		recyclers face considerable feedstock bottlenecks, due to the inefficiency of the EPR schemes and overall lack of funding for this infrastructure. With the provisions in the WFD only taking effect in 2027, a scaling of post-consumer waste systems is unlikely to be operational when ecodesign requirements become applicable in 2028. Post industrial waste, on the other hand, has a well-established market and the existing infrastructure for managing post-industrial waste is efficient and scalable in some regions: A report from 2025 by Reweave shows that India has developed an ample recycling capacity due to a well-established sorting, pre-processing and recycling infrastructure (https://reweave.enviu.org/wp-content/uploads/2025/02/Reweave_Report_Issue-Analysis.pdf?utm_medium=email&_hsenc=p2ANqtz--00iFrcDPBy2bgM0SxbTo54mHHm6lpyeF-XCx4tlxr5732z2EINSg9zpZoefDfYBluKtsyDp16bxt367b5K_wNnLLa1xqJtj0wB-NNehMCWygg10E&_hsmi=104553241&utm_content=104553241&utm_source=hs_email) . In Vietnam, 60% of post-industrial waste is recycled into textile fibres or downcycled,(https://www.giz.de/de/downloads/giz2025-en-ecosystem-mapping.pdf). Similarly high numbers are reported for Morocco and Tunisia in the 2021 Switchmed report (https://switchmed.eu/wp-content/uploads/2021/07/MOROCCO_TUNISIA_DA_9_TextileWasteMapping.pdf), where post-industrial waste is directed towards mechanical and chemical recycling or downcycling. In addition, post-industrial wastes originates from an earlier step in the supply chain, and has well-established sorting infrastructure, as opposed to post-consumer waste systems. This makes it typically cleaner and more homogeneous than post-consumer waste, making it a crucial, pragmatic and valuable source for recycling feedstock, maintaining a high level of recycled fibre quality. In addition, excluding this valuable and unavoidable waste from the definition of “recycled content” would contradict the waste hierarchy principles which prioritise recycling before disposal. Given these factors, we strongly recommend recognising the relevance of post-industrial waste in the definition of recycled content. This inclusion would promote high quality recycled content uptake and bridge the gap in the development of post-consumer waste recycling infrastructure.
1894	9.2.5.1; 3674-3677	Based on the argument outlined in the previous comment, we advocate for including post-industrial, ESPR-compliant pre-consumer and post-consumer waste in the "recycled content" definition, as they are all integral parts of the system. Post-industrial waste serves as a necessary and reliable feedstock, ensuring the stability of closed-loop recycling. As post-consumer systems still need to scale, we recommend including post-industrial waste in the recycled content threshold targets. This balanced approach supports the long-term development of post-consumer waste recycling, without compromising the consistent supply of high-quality recycled materials.
1895	9.2.5.4; 3674 ff	Post-industrial and pre-consumer waste should also be included in the calculation a circular economy, for the time being they are often cheaper and of higher quality which will support the aspect of longevity
1896	9.2.5; 3674-3677	Recycled content: We strongly disagree with the definition of recycled textile fibre in the 2nd Milestone report. Post-industrial textile waste and pre-consumer textile waste are waste streams to be taken into consideration as well.

ID	Section & line	Comment
		The industry has proactively advanced for many years the recycling of industrial textile waste, and today it is the main market when considering recycled fibres.
1898	9.2.5.4; 3674-3677	The definition of recycled content should not be limited to recycled fibres coming from apparel disposed of as post-consumer waste but should also include fibres from other disposed textiles (e.g. home textiles and technical textiles). Regarding recycled material coming from other sectors (e.g rejected bottle flakes that are not any longer suitable for food contact or other PET packaging such as trays, films, etc.) it must still be possible to process them into yarn (e.g. staple fibre). To be clear: High-quality bottle flakes that are suitable or certified for food contact should not be processed into yarn – in other words, bottle-to-bottle recycling should be favoured. Remark: The EU and the JRC must rethink the framework conditions in order to accelerate a sustainable Textile-to-X (T2X) strategy (with the goal of Textile-to-Textile). Chemical recycling as a 'Not-Yet Best Available Technology' (NBAT) will play an important role here and even make it possible to produce food PET from non-food PET. This would also make 'Textile-to-Bottle' (one of T2X) possible. This path must not be blocked today by a one-sided view and regulation.
1899	9.2.5; 3674-3677	Strongly recommend to recognize the importance of and include post-industrial waste in the definition of recycled content. The textile industry is not yet capable of sourcing feedstock for recycling only from post-consumer waste due to the constraints in existing infrastructure and the suitability of the material for recycling processes (as it requires high levels of pre-treatments or pre-processing before it is ready to be feedstock for recycling). Excluding post-industrial waste from the definition of recycled content would be counterproductive to achieving and increasing recycled targets, and will greatly hinder the progress in T2T recycling. Relying on post-consumer waste for ESPR compliance would be setting the industry up for failure, there is currently not enough and mature enough infrastructure for post-consumer waste. There is also a lot of evidence that shows that the current sorting industry in Europe is overloaded and collapsing, with the provisions of WFD only coming into effect in 2027, scaling post-consumer waste streams and infrastructure to be ready for advanced recycling , is unlikely to be operational when Ecodesign requirements come into force in 2028. Therefore, it is important to align the recycling value chain with infrastructure development and product design to support circular economy. Post-industrial was is a well-established market worldwide, the infrastructure exists and is efficient and scaled in many regions such as India, Bangladesh, Vietnam, and more. For decades, this post-industrial waste has been directed to recycling and downcycling applications, especially for well cotton and wool recycling. A lot of the blended materials in post-industrial waste goes to downcycling operations as mechanical recycling and downcycling technologies can use polycotton blends to make open-end coarse yarn, wipers, insulation and filling. To fuel textile to textile recycling that produces high quality recycled material, post-industrial must be a part of the recycled content definition. If it is excluded, it will set back a lot of the progress made by advanced recyclers, but will also continue to push low-value recycling over circular closed-loop high quality recycling. It is also not right of the EU to view post-industrial waste streams as not part of the problem just because the waste is not in EU, the fashion global supply chain is complex but also expands over various countries. The waste problem in post-industrial is still a concern for brands and manufacturers, and not just

ID	Section & line	Comment
		post-consumer. Showing that both waste co-exist. Some reports and links that give further knowledge on post-industrial waste: 1. https://www.innovationintextiles.com/soex-group-files-for-insolvency/ + https://www.eionet.europa.eu/etcs/etc-ce/products/etc-ce-report-2024-5-textile-waste-management-in-europes-circular-economy - even big players like Soex have faced challenges due to the overloading of the industry requirements and the lack of alignment with the reality of the industry 2. Multiple manufacturing regions showcasing that post-industrial sorting infrastructure is set up and already fuels mechanical and downcycling industries – India (https://reweave.enviu.org/wp-content/uploads/2025/02/Reweave_Report_Issue-Analysis.pdf?utm_medium=email&_hsenc=p2ANqtz--00iFrcDPBy2bgM0SxbTo54mHHm6lpyeF-XCx4tIxr5732z2EINSg9zpZoefDfYBluKtsyDp16bxt367b5K_wNnLLa1xqJtj0wB-NNehMCWygg10E&_hsmi=104553241&utm_content=104553241&utm_source=hs_email); Vietnam (https://www.giz.de/de/downloads/giz2025-en-ecosystem-mapping.pdf); Morocco & Tunisia (https://switchmed.eu/wp-content/uploads/2021/07/MOROCCO_TUNISIA_DA_9_TextileWasteMapping.pdf)
1902	9.2.5; 3674-3677	The reports suggestion to go further than the ISO 14021 concerning definition of recycled product is ambitious. And even though Nordic Ecolabelling strongly support recycling of textile fibres into new textiles, we are concerned that such a definition will result in very small available stock, resulting in too low ambitions in the Ecodesign regulation. It is not only ISO 14021 that defines recycling broader than only allowing recycled content from the same type of product (here fibre to fibre). A broader definition is also in the Directive 2008/98/EC article 3, which the EU Commission also refers to in their discussion paper on the disclosure for information on unsold consumer products in Ecodesign Forum meeting content for 20 February 2025. We suggest broadening the ability to use sources of recycled material to more than only textile fibre products, however accompanied by other restrictions assuring that downcycling is not happening, e.g. by banning the use of recycled PET from production lines that are EFSA or FDA approved for food contact material.
1911	Section 9.2.5.4 How to assess recycled content; 3675	We welcome the fact that the definition of recycled content for textiles is tied to textile waste. We welcome the proposal to use only textile waste as raw material for recycled content, as it will enable the development of a truly virtuous closed loop. In particular, the ESPR DA should require that PET recycled fiber used in textiles come from a genuinely circular textile-to-textile approach and exclude bottles and plastic packaging. However, to truly stimulate the textile fibre-to-fibre recycling at scale, the definition of recycled content should also include post-industrial waste and consider broadening the feedstock under recycled content to textile materials, rather than just limiting it to textile apparel only. Overall, the Delegated

ID	Section & line	Comment
		Act should outline an open definition of recycled content allowing for recycled input from a broad spectrum of textile materials and feedstock and should contain solid requirements on recyclability and recycled content in textile apparel. Taking this into account, we propose the following amendments to the definition of recycled content: 'Recycled content is the proportion, by mass, of recycled fibres coming from recyclable textile material disposed of as waste in Europe'. The definition of recycled content is critical to protect the European recycling industry and prevent an over reliance on imports from third countries. The ESPR DA should help create a level playing field and ensure that the European textile materials and feedstock are preferred for incorporation in textile apparel products. The definition of admissible textile waste should also be consistent with those admitted by the voluntary certifications selected by the JRC in the table 'Textile Fibres – Comparison Among Ecolabels' (p. 292). This definition is critical for a potential measure on mandatory minimum recycled content in textile apparel. We strongly support the implementation of mandatory minimum recycled content in textile apparel to ensure the scalability of the European textile-to-textile recycling value chain.
1912	9.2.5.4; 3675-3677	When defining recycled content, it is crucial to include post-industrial and pre-consumer waste. We do not agree with solely allowing post-consumer textiles as a definition of recycled content. • The preparatory study argues against the inclusion of post-industrial textile waste as a source simply because it could incentivise the generation of this type of waste. This is not a valid argument as fabric manufacturing comes with X cost for brands and manufacturer that is inclusive of inputs, wages, utilities, compliance etc. Post industrial waste can be reduced overall, but it will always be generated. The argument of incentivisation does not make economic sense for any of the players involved. • Today, we are still seeing evidence that it is challenging for textile recyclers to scale. They are dependent on all waste resources (pre and post) to test, calibrate and scale their technologies. It is unfortunate to date unrealistic to build a system based only on post-consumer waste feedstock. However, recyclers see port-consumer waste feedstock as a highly interesting feedstock source to in the long run ensure sufficient volumes for their operations, as post-industrial/pre consumer waste feedstock is by default limited. • There is a strong need to establish ecodesign requirements that are feasible for all actors and geographical regions to meet. Counting both pre- and

ID	Section & line	Comment
		post-consumer -waste feedstock, would be such an approach. Overall, there is a need to increase the demand for recycled content (post-consumer specifically) i.e. legislation must find a balanced approach between supply of feedstock and creating demand for recycled content ie. target cannot be too low. • Post-Industrial waste and pre-consumer waste will not have a market and probably will be landfilled if not entered into the definition. • While textile-to-textile recycling should indeed be the objective, the recyclability of a garment should not be confined solely to textile-to-textile recycling. Furthermore, this goes against the ISO 14021. What are the technical reasons for deviating from an internationally agreed standard like ISO 14021 specifically in the case of textiles?
1914	9.25; 3676-3677	As industry leading manufacturers and/or sellers of recycled polyester, the stakeholders are writing to provide feedback on the proposed requirements for the Eco Design for Sustainable Products regulation, specifically those regarding recycled content and recyclability of textiles. Both of our companies support the goals of the EU Textile Strategy and have been offering recycled polyester fibers and chip made from textile waste for the last four to five years. Despite actively promoting these products, today's offerings from textile waste still remain a relatively small part of our respective recycled polyester businesses. As we're sure you're aware, within our industry currently 98% of recycled polyester uses post-consumer water bottles as its feedstock (Textile Exchange Materials Market Report 2024, p. 48). This is an established business, and while both of our companies support the goal of having industries take back their own waste, we also firmly believe in allowing sufficient transition time for the textile industry to move from bottle-to-garment recycling to garment-to-garment recycling at scale: n Converting all recycled business to textile waste will be a huge undertaking. In 2023, the industry recycled 8.9 million tons of polyester, with 98% or 8.7 tons coming from bottles (Textile Exchange Materials Market Report 2024, p.48). n Establishing reverse logistics will take time – collection systems, automated sorting and chemical recycling are all still in their infancy. n Significant investment will be required to scale all of these functions, and it is unclear where that investment will come from, and even once secured, how quickly sites can be built and begin recycling. n Leveraging existing, at scale availability of recycled polyester that is made from plastic bottles accomplishes the shared goal reducing the environmental impact, in key impact areas including reduction of greenhouse gas emissions, energy, fossil fuel and freshwater consumption, versus virgin polyester. Through legislation, the EU has successfully facilitated the transition of various industries from virgin materials to recycled resources. Packaging, paper, and glass are several that come to mind. Looking at the progress for those materials could potentially provide insights into the expectations we should have for the availability of post-consumer textile waste as a raw material for recycling. Recycled Packaging Rates in the EU While packaging waste has increased over the last decade, recovery and recycling rates have remained relatively steady, despite many initiatives and targets. In 2022, the recovery rate for packaging of all types in the EU was 80 percent and the recycling rate 65 percent (European Environment Agency:

ID	Section & line	Comment
		https://www.eea.europa.eu/en/analysis/indicators/waste-recycling-in-europe/recycling-rates-in-europe?activeTab=570bee2d-1316-48cf-adde-4b640f92119b) Glass Separate waste collection for glass has been established over decades. Although glass can be easily sorted from other waste, progress has been slow. The EU glass packaging recycling rate had increased from 60% in 2005 to 76% in 2020, around 1% per year (Statista: https://www.statista.com/statistics/1258851/glass-recycling-rate-in-europe/) Paper Paper waste has a well-established collection system. In 1990, the paper recycling rate for Europe was estimated to be about 40 percent versus 75-80 percent today (Cepi: https://www.cepi.org/press-release-the-paper-value-chain-reached-a-705-recycling-rate-in-2022/). While these rates are impressive, the growth occurred over the past three decades. The experience of these industries suggests it will take multiple decades to make scalable progress on garment-to-garment recycling, especially considering we are starting from a very low base. While we recognize the need for urgency to combat the effects of climate change, we ask the JRC to consider establishing a reasonable transition period for moving from bottle-to-garment recycling to textile waste-to-garment and garment-to-garment recycling for content labeling requirements of recycled polyester. While incentives should be provided to increase garment-to-garment recycling, in our opinion, punitive actions should not be taken on bottle-to-garment recycling, which may be the only options available at scale for quite some time. Should you wish to do so, we would be happy to discuss further as both of our companies have had the unique experience of trying to grow products made from textile waste-to-garment and garment-to-garment recycling of polyester over the past several years. We appreciate your consideration of this feedback and look forward to continued discussion.
1915	9.25; 3676-3677	The stakeholder is writing to provide feedback on the ESPR Delegated Act for Apparel and Footwear on Recycling and Circularity. While we support the ambition of a closed loop apparel industry, we believe this will ba a long term solution, as emerging technologies will take time to grow and compete with virgin materials. While the end goal should be a totally circular apparel & footwear industry, we hope the transition will be facilitated by doable steps and reachable targets. Prioritising durability and carbon reduction could deliver shorter term improvements as scaling solutions are both known and available. Mid-term impact reductions could be encouraged with targets on the use of secondary raw materials sourced from open loop recycling. The end state target of a closed loop industry with material losses being made up with bio-based raw materials could be driven by

ID	Section & line	Comment
		graduated targets within the ESPR as well as dynamic modulation fees moving alongside progress. The Role of Elastane The use of elastane has required increased technical capabilities, and this has been a significant contributor to supporting European textile mills in differentiating from cheaper imports. Elastane has traditionally been used in hosiery, lingerie, swimwear and sportwear but has now become valued in many other garment segments such as denim, underwear, knitwear and tops. Its primary purpose is to meet consumer demands for comfort and garment shape retention, thereby enhancing the durability and longevity of garments through consumer emotional and physical garment preference and resulting repeated wear. Recycling of Elastane There is significant research and development being focused on the recycling of blends such as polyester/cotton, cotton/elastane and nylon/elastane. Current recycling techniques include mechanical, chemical depolymerization, and solvent extraction, depend on the type of fiber involved. Unlike older recycling technologies that have focused on mono-fibre processing, new, emerging technologies account for the presence of blends within the textile waste stream with the development of multi-fibre recycling technologies, pre-treatment removal or tolerance to impurities (other fibres, dyes, prints, etc.). Elastane waste possesses intrinsic chemical value and can potentially enhance the economic viability of recycling processes when appropriately valued. By recognizing elastane as a valuable material the economics of garment or fabric recycling could significantly improve. The stakeholder Experience in Recycling of Textile Waste Containing Elastane The [...] Company is actively working with textile recyclers at a global level to evaluate the best elastane separation technologies from end-of-life products which allow recycling. We have successfully demonstrated that when elastane is separated from hard fibers without compromising its chemical structure, we can produce new, high quality elastane fibers with recycled content as high as 50%. These projects are conducted under NDAs and more details could be shared in one-to-one conversations, pending the agreement of the third parties. Thermo-chemical elastane recycling (depolymerization to monomers and repolymerization) is a further option, though for elastane, technologies here are still emerging and evolving. Final Comments In conclusion, The stakeholder shares the Eu ambition for a circular economy but look to the Eu to provide a pragmatic and realistic path forward that drives change without limiting the shorter-term gains that can be made with interim stages of the transition. Gaining more knowledge on the often-conflicting impacts of recycling with the benefits of blends, design for durability with design for recyclability, biobased feedstocks with recycled feedstocks and open loop circularity with closed loop circularity. The solution to the ambition of transitioning to a circular Apparel & Footwear industry will require many different solutions and we believe it is critically important at this early stage to keep all options open while knowledge and

ID	Section & line	Comment
		technology develops to enable us to meet this goal. This will support the EU textile industry to remain competitive during the many challenging years ahead.
1916	9.25; 3676-3677	LETTER TO THE JOINT RESEARCH CENTER, EU COMMISSION AND POLICY HUB RE THE ROLE OF ELASTANE MADE PARTIALLY FROM BIO-BASED MATERIALS The stakeholders are writing to provide feedback on the recent product standards that were proposed by the Joint Research Centre as part of the Eco Design for Sustainable Products Regulation (ESPR), as it appears that these standards do not account for the benefits of fibers made with bio-based materials. In the event you may not be familiar with our companies, below please find very brief descriptions of each and how we are collaborating to bring an elastane made mostly from renewable materials to market. Company Backgrounds […] Investing in Bio-derived Technology The stakeholder has invested more than $350 million U.S. dollars to build the world's first large scale (65 kiloton) site to produce []®, its brand of 1,4-butanediol (BDO), derived from dent corn (a renewable resource). In its final form, […]® bio-based BDO is converted into PTMEG, a key ingredient that makes up about 70% of […]® fiber by weight. By the end of this year, through our collaboration with The stakeholder, The stakeholder will begin replacing the fossil-based PTMEG ingredient in […]® fiber with PTMEG made from bio-based […]®, resulting in the world's first elastane made using a majority of bio-based material at scale. Over the next two years, The stakeholder plans to convert nearly 30% of our current elastane production capacity to […]® fiber made mostly from bio-based […]®. The Potential for Elastane that is both Bio-derived and Recyclable The stakeholder and its parent companies all support the goals of the EU Textile Strategy and recognize the need to transition to a circular economy. In fact, The stakeholder has a team dedicated to developing […]® fibers that are amenable to various types of textile-to-textile recycling processes with the goal of recovering the […]® fiber from garments at end of life and re-spinning it into new fiber. We are working under NDA with a variety of garment recyclers on this and anticipate that in several years we will be able to produce a fiber that is both made mostly from bio-derived materials and is recyclable at end of life. We have conducted numerous trials with recyclers around the world and have been able to produce a […]® fiber with up to 50% recycled content extracted from used fabrics. Contributing to the EU's Goal of Carbon Neutrality While we are excited by these developments, we also believe it will take years, if not decades, to build the collection, automated sorting, and garment recycling infrastructure to enable textile-to-textile recycling at scale. In the meantime, by producing […]® fiber made mostly from bio-based […]® at

ID	Section & line	Comment
		scale, we can contribute to the EU's goal of reducing carbon emissions by at least 55 percent by 2030 and reaching carbon neutrality by 2050. The stakeholder has conducted a screening life cycle assessment (LCA)2 which shows that [...]® fiber made mostly with bio-based [...]® has the potential to reduce carbon emissions by up to 44 percent vs. standard [...]® fiber produced with fossil-based ingredients. Feedback on Product Standards In reviewing the product standards recently set out by the JRC, the focus seems to be on textile-to-textile recycled fibers. While we agree this is important, it is not feasible to expect even ten percent of garments will have recycled content from post-consumer textiles in the near term, given that the infrastructure to process and recycle those fibers will not be in place. In this context, the idea of penalizing all virgin fibers, including those that have the potential for significant reduction in carbon footprint, seems unjust. We therefore respectfully request that elastane products made all or partially from bio-based materials that can demonstrate reductions in carbon footprint, maintain biodiversity, and employ at least some regenerative practices be categorized differently under the ESPR than virgin fibers made using traditional, fossil-based feedstocks.
1917	9.25; 3676-3677	Comments on the ESPR Regulation Task 4 – Inclusion of Mass Balance We are writing to express our concern regarding the exclusion of the Mass Balance approach from the current draft of the European Strategy for Sustainable Products Regulation (ESPR). As advocates for sustainable practices and circular economy principles, we believe that incorporating Mass Balance into the regulation is essential for achieving the goals outlined in the European Green Deal and ensuring a meaningful reduction in environmental impacts. Mass Balance is a critical tool in tracking and verifying the flow of materials throughout supply chains. Specifically, for the textile industry, the stakeholder define Mass Balance as: - A Chain of Custody model in which materials or products with a set of specified characteristics (e.g., recycled content, organic cotton) are commingled according to defined criteria with materials or products with other characteristics. - A particular Chain of Custody model where inputs along with their associated information, are transferred onto outputs within a system. The Mass Balance approach is commonly used in the chemical industry to trace material flow through complex value chains where there are multiple inputs and outputs. For example, it can track the amount of specific material (such as recycled cotton) and attribute it based on verifiable bookkeeping, ensuring that the claims made about the recycled content in an output are consistent with the actual material inputs in the system. We define this as actual Mass Balance. The Actual Mass Balance approach ensures that the match between recycled content inputs and outputs is verifiable, thus preventing misleading claims about sustainability. In some instances, the Mass Balance model relates to actual or physical content, when material is segregated or controlled in blended flows.

ID	Section & line	Comment
		There are other cases, where it relates to virtual or credit content, attributing material based on bookkeeping or equivalent systems. We define this as Virtual Mass Balance. It is used on a variety of products, including energy. The stakeholder may subscribe to one or both types of Mass Balance accounting based on feedstock inputs and recycling types. Including Mass Balance in the ESPR will provide significant benefits, including: 1. Facilitating Remanufacturing and Recycling: allows businesses to design products with circularity in mind and ensures better systems for material recovery. 2. Supporting Rules on Carbon and Environmental Footprints: Mass Balance is instrumental in tracking material flows and accurately calculating carbon footprints and environmental impacts. This transparency is essential to ensure that sustainability claims are based on verifiable data. 3. Limiting Waste Generation: By enhancing material traceability, Mass Balance encourages design decisions that reduce waste generation. It ensures that the content of recycled materials is properly accounted for and used in new products, contributing to circular economy objectives. 4. Improving Information Availability on Product Sustainability: Mass Balance enables the transparent exchange of information regarding the sustainability of products. This transparency will empower both consumers and businesses to make informed decisions 5. Allowing for the use of existing production facilities vs. having to construct new facilities for dedicated processing of recycled materials. 6. Using a mass balance approach for textiles exists at scale and thus can contribute to meeting the EU's goals for both carbon reduction and the transition to a circular economy. Should mass balance be excluded, it is difficult to see how the industry will be able to meet these goals in a timely fashion. 7. The EU already recognizes mass balance in other industries, such as the bio-based plastic sector with the ISCC PLUS certification, renewable energy through the Guarantees of Origin (GoOs), paper and pulp industry through FSC, and airlines to track sustainable aviation fuels blended with traditional jet fuel. And within textiles, mass balance tracking is used in BCI Cotton, GOTS and Oeko-Tex. Excluding mass balance approach for recycled content in textiles will create inconsistencies across industries and within the industry, making the textile industry less competitive. For these reasons, we strongly urge the European Commission to reconsider the current draft of the ESPR and incorporate Mass Balance into its framework. Its inclusion will not only align with the regulation's sustainability objectives but will also provide the necessary tools to drive the circular economy forward, ensuring that sustainability claims are accurate, verifiable, and meaningful.

ID	Section & line	Comment
1918	Chapter 9.2.5.4; 3676	Definition of recycled content Open-loop recycling, where textiles are converted into high-quality non-textile products or where other material streams may be recycled into raw material for textiles replacing virgin fossil feedstocks, should be accounted for as an additional essential contribution to circular economy next to closed-loop recycling. By allowing for cross-industry linkages, open-loop recycling ensures that economically efficient circular strategies are possible. Closed-loop (e.g., fiber-to-fiber, textile-to-textile, garment-to-garment) recycling might be considered a sub target of circularity and incentivized, e.g., by reduced EPR fees.
1919	Chapter 9.2.5.4; 3676	Definition of recycled content All types of textile waste (post-industrial, pre-consumer, and post-consumer) should be recycled and should count towards a mandatory recycled content target. Special incentives should be provided for post-consumer textile waste recycling, as it is often the most challenging to manage. Encouraging the recycling of all textile waste types will significantly reduce the environmental impact of textile production and disposal as well as accelerate scaling of recycling technologies.
1920	Chapter 9.2.5.4; 3676	Definition of recycled content The mass balance approach should be considered to ensure that the recycled materials, resulting from any recycling process, are accurately accounted for in the final product.
1921	9.2.5.4; 3676	This PS take in account only post-consumer waste as recycled content, but : - impossibility to answer to the demand if only post-consumer is considered : the current deposit is not enough - Much more complicated to recycled, and more expensive too - the recycling industry is not mature enough to answer the demand

ID	Section & line	Comment
		- Post-consumer fiber wastes are already damaged fibers : if they undergo another mechanical or chemical treatment, it will make them even more damaged. So the physical durability of the future final product will be affected.
1922	9.2.5.4 How to assess recycled content; 3677	The JRC has proposed that only recycled fibres from post-consumer waste may count towards recycled content requirements. However, we ask the JRC to consider including post-industrial textile waste as a source that also may count towards recycled content requirements. Recycling of post-industrial textile waste is a much more complex process than recycling of i.e. post-industrial plastic waste, and therefore a different approach might be needed for textiles. Offcuts in plastic production can often be returned directly back into the extruder in the plastic factory and included in new production. In contrast, post-industrial textile waste often needs to be processed by another entity that can shred and defiber the textile waste before it can be carded and spun into new textile fiber/yarn. Even if only post-consumer waste can be used as recycled content in plastic packaging it might be beneficial to also include post-industrial waste as recycled content in textiles. The choice between including or excluding post industrial waste in the recycled fibre blend may represent a choice between two potentially conflicting environmental goals: On the one hand, excluding post industrial waste may foster more precise and efficient production methods and thereby reducing post industrial waste. On the other hand, including post industrial waste may ensure that high quality textiles and associated products lasts longer. Production plants maintain more control of the fiber blend and chemical content and may thus produce more durable and high-quality products, as opposed to blending in post-consumer waste in which the waste streams and recycled fibres are more heterogenous. For high quality textiles, such as apparel with Ecolabel quality, it can therefore be more difficult to mix in recycled textile fibres with unknown composition/chemicals. We therefore suggest two potential routes the JRC may explore. One could be a combination of incentives and disincentives for post industrial waste, notably allowing post industrial waste to count towards recycled content requirements, and at the same time be rewarded lower than post-consumer waste in the eco-modulation approach. Another route may be to assess the possibility of allowing post-industrial textile for high quality textiles, such as Ecolabel textiles.
1923	9.2.5.4; 3678-3683	We strongly disagree with this conclusion: disregarding the fiber composition in defining fabric categories renders the entire study invalid and inapplicable. The intrinsic characteristics of the fiber that constitutes the material are the primary determinant and source of both its properties and impact, which are specific to each fiber. The simplification proposed in Table 52 is unacceptable if it fails to consider the composition. The category of product, type of fiber and product function must be considered in the next steps of recycled contents criteria.

ID	Section & line	Comment
1924	9.2.5.4; 3678-3682	Recycled content – fibre specific. The meaning, purpose and reasoning of this section is unclear to us. We would suggest rephrasing this section.
1928	9.2.5.4; 3680-3682	There is a risk of reducing European competitiveness by making an excessively broad category of textiles, as the EU is good at special products. "Basic fibres" such as cotton are grown outside the EU. Polyester is also mostly produced outside the EU. However, Europe is at the forefront when it comes to MMCF as a lyocell, but also new fiber spinning processes. These new technologies are small to begin with in volume and it will take time before there are large volumes. However, these new spinning processes, which are less environmentally disruptive technologies, must not be disadvantaged.
1929	9.2.5.4; 3680-3682	Although we recognize the JRC willingness to streamline the process, the textile products are complex performing differently depending on the fibres used and their function. Thus we do not agree with the JRC proposal to not categorize the products in scope based on the types of fibres and the specific function.
1930	9.2.5.4 (page 134); 3680-3682	We recognize that the JRC aims to streamline processes; however, the textile industry is inherently complex and diverse. Any decision made must carefully account for the broader implications of such simplification on the European textile and fiber industry. A simplified approach risks disproportionately favoring commodity fibers, which are predominantly produced outside the EU, as European manufacturers have shifted towards specialization due to limited competitiveness in commodity production. It is crucial not to disadvantage specialized sectors that neither contribute significantly to textile waste nor enter recycling streams.
1931	9.2.5.4; 3684 Table 52	Status of the material: in post industrial waste, synthetic fibres may not be undamaged and clean. In post industrial waste also depolymerization should be considered (already a reality, open –loop recycling). It could be correct, but normally the post-industrial waste is not recycled by the same manufacturer and is mixed up with other “similar” (but not identical) wastes. We suggest amending the sentence as follows: ‘Known and detailed by the manufacturer but not by the recycler.’ Considering the import of textiles, the European textile manufacturers are still quite relevant. Therefore, the sentence seems to be incorrect. We suggest amending the sentence as follows: ‘Manufacturing stage’ (delete ‘available in producing countries, which are mainly countries in Asia’) Considering that the recycler is normally different from the manufacturers and that post-industrial waste is normally mixed up, this type of waste must go through sorting.

ID	Section & line	Comment
		We suggest amending the sentence as follows: Delete 'Not always needed, because it is already sorted in the moment of generation', and replace with 'It is normally needed.' Pre-treatment may also be needed. As already explained above, the European production is, in any case, still relevant and post-industrial waste is regulated by WFD. We suggest amending the sentence as follows: Delete 'Very little production occurs in EU. The generation of post-industrial waste generated in EU are not specifically regulated. The WFD sets only generic objectives to prevent waste generation', and replace with 'This type of waste is addressed by the WFD (EoW)'
1932	9.2.5.4; 3684	Table 52: Pre-consumer includes returns; the status of the materials of the returns s not always undamaged and clean. The fibre composition of post-consumer is not solely determined via infrared spectroscopy, but also by reading the label, when readable and present.
1933	9.2.5.4; 3684	Table 52 – Status of the material for "post-consumer": The assumption that post-consumer waste are "worn material with damaged fibres" and that "it is often relatively dirty, with various form of stains and moist content, generating mould and hygienic problems" is questionable and lacks evidence. It is in fact not necessarily the case, as post-consumer waste destined for recycling may be clean but unsuited to reuse for other reasons, e.g. waste takes up storage space and there are no buyers for this quality; these garments are already out of fashion; transportation costs or regulations make it unviable to ship to far markets. Furthermore, looking at Germany, contaminated textile waste does not fall under the scope of the mandatory separate collection for textiles and hence must be discarded in mixed municipal waste (BMUV, 2025, FAQ "Getrennte Sammlung von Textilabfällen": https://www.bmuv.de/themen/nachhaltigkeit/konsum-und-produkte/produktbereiche/mode-und-textilien/faq-getrennte-sammlung-von-textilabfaellen?trk=public_post_comment-text). These types of waste are hence also not legally considered to be recyclable. Table 52 – Knowledge of fibre composition for "post-consumer": to fully reflect the reality on the ground and different techniques used by sorters and recyclers, we suggest the following: "Based on the visual and touch analysis of the item's surface or via infrared spectroscopy." Some sorters/recyclers are not using NIR to define the composition, but only the visual analysis of trained employees. Table 52 – Sorting for "post-industrial": although "Not always needed" is technically correct, experience suggests that waste is poorly managed on the factory floor and generally gets cross contaminated. Therefore, sorting will most likely be needed to reverify the composition.
1934	9.2.5.4; 3684	Table 52: Pre-consumer includes returns; the status of the materials of the returns is not always undamaged and clean. The fibre composition of post-consumer is not solely determined via infrared spectroscopy, but also by reading the label, when readable and present.
1942	Recyclability and recycled content; 3689	Harmonization between End-of-Waste and ESPR legislation is crucial to create a consistent and viable circular economy framework.

ID	Section & line	Comment
1943	Chapter 9.2.5.5; 3693-3696	BAT/BNAT of Recyclability The BAT & BNAT for recycled content (line 3694-3696) fails to identify current open loop cross industry linkages within the existing technology, which is currently in practice ("most of the recycling processes today are open loop" Line 7648-7649)., where recycled content comes from open loop linkages. Rationale: Open loop linkages provide a valuable contribution to the achievement the goals of circular economy, missing out on open loop linkages as recycled content, misses out on the opportunities presented by open loop recycling. Recommendation: 1. Inclusion of open loop linkages within the scope of recycled content. 2. Not to gather product aspects recyclability & recycled content (Line 2754) rather separate study of product aspects: Recyclability and Recycled Content.
1944	9.2.5.5; 3697-3698	Also valid for carded fabrics.
1945	9.2.5.5; 3697-3700	Even woven fabrics can incorporate recycled fibers.
1948	9.2.5.5; 3700	Production of cotton fabrics: discrepancy between a mandatory recycled content and the resulting durability and environmental impacts There is an example of high-quality cotton fabrics, for example for shirts, which are currently made from yarns with extra-long-staple cotton fibers. These yarns guarantee a special durability of around 60 wash cycles in the end product. This high quality is demanded by customers worldwide. The manufacturing process in the weaving and finishing is optimized for these yarns to ensure fully continuous production with the lowest possible environmental impact in terms of energy, water and chemical use. This complies with the requirements of the CSRD, the IED and the national wastewater emissions regulation and enables competitive production where production can be carried out much more cleanly due to the use of renewable energy in the energy mix and the mandatory BAT's. Currently, only a very small number of collection items can be offered with a maximum of 2-3% recycled material. Cotton yarns with recycled content show that the strength of the yarn decreases the higher the recycled content is and the sooner it breaks. This reduces the durability of the fabric.

ID	Section & line	Comment
		It can be said that the production process with recycled yarn will have negative environmental impacts compared to a production process with yarns made from long-staple fibers, such as higher energy, water and chemical consumption (sizing agents, dyeing process). This in turn will affect competitiveness. It is clear that the current weaving process places high demands on the strength of the yarn. However, there is still a lack of precise empirical values as to what percentage of recycled yarns the weaving process with the current machinery is no longer technically possible due to the lack of strength. If recycled content is mandatory, a holistic approach must be implemented, including exemptions where necessary, taking into account many factors (technical, environmental, efficient, economic) to allow higher quality products with better durability but without a percentage of recycled yarn.
1949	9.2.5.5; 3700	When evaluating the incorporation or increase of recycled content, it is essential to ensure an understanding of the potential adverse impacts that such material may have on other parameters covered by this regulation, such as durability. Since the content of recycled fibers (currently mainly sourced from mechanical recycling, and therefore intrinsically of lower quality than virgin fibers) may negatively impact the garment's performance in terms of resistance and its ability to maintain appearance over time.
1950	9.2.5.4; 3700	When evaluating the incorporation or increase of recycled content, it is essential to ensure an understanding of the potential adverse impacts that such material may have on other parameters covered by this regulation, such as durability. Since the content of recycled fibres (currently mainly sourced from mechanical recycling, and therefore intrinsically of lower quality than virgin fibres) may negatively impact the garment's performance in terms of resistance and its ability to maintain appearance over time.
1952	9.2.2.5; 3700	Production of cotton fabrics: discrepancy between a mandatory recycled content and the resulting durability and environmental impacts There is an example of high-quality cotton fabrics, for example for shirts, which are currently made from yarns with extra-long-staple cotton fibers. These yarns guarantee a special durability of around 60 wash cycles in the end product. This high quality is demanded by customers worldwide. The manufacturing process in the weaving and finishing is optimized for these yarns to ensure fully continuous production with the lowest possible environmental impact in terms of energy, water and chemical use. This complies with the requirements of the CSRD, the IED and the national wastewater emissions regulation and enables competitive production where production can be carried out much more cleanly due to the use of renewable energy in the energy mix and the mandatory BAT's. Currently, only a very small number of collection items can be offered with a maximum of 2-3% recycled material. Cotton yarns with recycled content show that the strength of the yarn decreases the higher the recycled content is and the sooner it breaks. This reduces the durability of the fabric. It can be said that the production process with recycled yarn will have negative environmental impacts compared to a production process with yarns made from long-staple fibers, such as higher energy, water and chemical consumption (sizing agents, dyeing process). This in turn will affect competitiveness.

ID	Section & line	Comment
		It is clear that the current weaving process places high demands on the strength of the yarn. However, there is still a lack of precise empirical values as to what percentage of recycled yarns the weaving process with the current machinery is no longer technically possible due to the lack of strength. If recycled content is mandatory, a holistic approach must be implemented, including exemptions where necessary, taking into account many factors (technical, environmental, efficient, economic) to allow higher quality products with better durability but without a percentage of recycled yarn.
1953	Chapter 9; 3700	Final report on Denim Deal as a source as well: https://open.overheid.nl/documenten/dpc-5ca80c756f92ce053cf75a35461f6be644f3c5b3/pdf
2377	9.2.5.1; 3573-3589	This paragraph refers to mutually dependent legislative initiatives that in some cases do not yet exist. The presentation and the reference to individual EU member states also create an image that does not represent reality and the representation of the other members.

Annex 18. Comments on environmental impacts

Table 41. Comments on environmental impacts

ID	Section & line	Comment
1959	9.2.6;3701-3707	We disagree with the assumption that facilities outside the EU inherently have a higher environmental impact. There is a clear need for data to guide decision-making in these regions. While national environmental protection measures may be less stringent, many facilities still adhere to Best Available Techniques (BAT) and European standards. We recommend focusing on the facility level to incentivize improvements among producers in these countries, ensuring those meeting European standards are not unfairly penalized. Facility-level data is also more accessible than product-level data, as impacts are measured at the facility, and many produce a variety of products under different settings.
1960	9.2.6;3701-3707, Heading 'Environmental impacts'. Topic 'General'	- We would like to address that facilities outside of the EU do not necessarily have a higher environmental impact per default. In our view, there is a general need for data to support decision-making in countries outside the EU. Environmental protection measures are often less stringent at the national level in these regions, but that does not mean that facilities do not implement BAT and European protection standards. We recommend shifting the focus to the facility level to create stronger incentives for improvement among producers in these countries. This approach ensures that producers meeting European limit values are not penalized unnecessarily. Data on facility level is also more easily available than data at product level as impacts are measured on facility level and many facilities often produce a variety of products using variable settings of production lines and different products for more than one brand
1961	Section 9.2.6;line 3701	Impact Assessment Methodology: The impact assessment relies on general assumptions about the manufacturing country, which may not accurately reflect diverse production realities. Considering country-specific data and localized manufacturing practices could lead to more precise and actionable insights, fostering fair and effective implementation
1962	9.2.6. Environmental Impacts;3701	We emphasise the need to extend the "natural vs synthetic fibres" debate beyond durability to include a more exhaustive analysis of their respective environmental impacts. The JRC should examine the negative environmental consequences of synthetic fibers more thoroughly, particularly the release of microplastics or the harmful effects of synthetic fibers incineration. At the same time, the JRC should consider key product aspects outlined in Article 5(1) of the Ecodesign for Sustainable Products Regulation (ESPR), which can be significantly improved by opting for fibers such as organic cotton. These include:

ID	Section & line	Comment
		- Energy use and energy efficiency: Organic cotton cultivation generally consumes less energy. It often requires less mechanical tillage operations and relies on organic fertilizers (like compost or manure) that are less energy-intensive to produce than synthetic fertilizers. (1) (2) (3) - Water use and water efficiency: Research suggests a consensus on the benefits of organic management techniques and methods for conserving water and reducing dependence on irrigation. Organic farming methods can improve water efficiency through better soil moisture retention and ecosystem management. While it is challenging to pin down a universal water savings figure (due to geographic differences), research indicates that organic techniques help conserve water and reduce dependence on irrigation. (2) (3) (4) (5) (6) - Resource use and resource efficiency: Organic farming promotes more mindful land use and protection of natural habitats. By prioritising ecological balance, organic cotton farming naturally supports biodiversity (healthy soils teeming with microbes, more pollinators and wildlife) and reduces pollution. Farmland under organic management often serves as a refuge for biodiversity, and careful land-use practices ensure the soil can continue to be productive for future cultivation. (3) (6) (7) (8) - Environmental impacts, including carbon footprint and environmental footprint: Across its life cycle, organic cotton tends to have a smaller environmental and carbon footprint. It avoids the greenhouse gas emissions associated with manufacturing synthetic fertilizers and pesticides. Although exact climate impact reductions vary by region, studies consistently find that organic methods lead to lower greenhouse gas emissions and reduced soil and water toxicity compared to conventional methods, largely due to reduced chemical inputs and tillage. (1) (2) (3) (6) (8) (9) We urge the JRC to explore these impacts in greater depth to ensure a more balanced assessment of fibre sustainability. We also encourage the JRC to ensure a more consistent use of the term cotton, clearly distinguishing between conventional and organic cotton in future documents and milestones. This distinction is essential for an accurate assessment of their respective impacts and sustainability contributions. References: (1) Mehmeti, A. et al. (2024) Performance and Sustainability of Organic and Conventional Cotton Farming Systems in Egypt: An Environmental and Energy Assessment. Sustainability (2071-1050), 2024, Vol 16, Issue 15, p6637. Doi: 10.3390/su16156637

ID	Section & line	Comment
		(2) La Rosa, Angela D., and Sotirios A. Grammatikos (2019) "Comparative Life Cycle Assessment of Cotton and Other Natural Fibers for Textile Applications" Fibers 7, no. 12: 101. https://doi.org/10.3390/fib7120101 (3) Thinkstep (2018). Life Cycle Assessment of Cotton Cultivation Systems - Better Cotton, Conventional Cotton and Organic Cotton. Study commissioned by C&A Foundation (4) Delate K, Heller B, Shade J (2021). Organic cotton production may alleviate the environmental impacts of intensive conventional cotton production. Renewable Agriculture and Food Systems 36, 405–412. https://doi.org/10.1017/ S1742170520000356 (5) Shah, P., Bansal, A., & Singh, R. K. (2018). Life cycle assessment of organic, BCI and conventional cotton: a comparative study of cotton cultivation practices in India. designing sustainable technologies, products and policies: from science to innovation, 67-77. (6) Fairtrade International. (2024). Evaluating environmental impact of fairtrade certificed cotton in India. https://www.fairtrade.net/en/get-involved/library/evaluating-the-environmental-impact-of-fairtrade-certified-cotto.html (7) Altenbuchner, C., Vogel, S., & Larcher, M. (2020). Community transformation through certified organic cotton initiatives—an analysis of case studies in Peru, Tanzania and India. Renewable Agriculture and Food Systems, 1–16. doi:10.1017/s1742170519000462 (8) IFOAM Organics Europe (2022), Organic agriculture and its benefits for climate and biodiversity, https://bit.ly/3U25Xve (9) Nic Lampkin and Bruce Pearce (2020), Organic farming and biodiversity, IFOAM Organics Europe, https://bit.ly/3gsPtyL
1963	9.2.6;3701	On the request for data input from industry to develop the Base Case/data request on LCA/LCC. We fully understand the JRC's need for data from the industry to develop the base case for environmental impacts for apparel. However, we would like to remind the COM and the JRC about the work undertaken by the industry during the past decade to develop the aspirational and voluntary framework PEFCR A&F and populating it with primary and secondary data. We believe it is unrealistic to assume that the industry would be able to submit relevant data for the base case within the span of the 2nd milestone consultation, particularly given that its product level data, rather than facility level data (which is what the industry gathers today) is being requested.

ID	Section & line	Comment
1964	9.2.6;3701	Currently, the JRC is requesting companies to provide data. However, benchmark values should be determined by the European Commission and should not be based on the average data of individual member states to ensure a uniform and comparable evaluation framework across the EU. Furthermore, due to the complexity of individual manufacturing processes, benchmark values should not be derived from single data points but rather defined within ranges. For example, the production of a T-shirt—using the same material and manufacturing method—can still show significant differences in water and energy consumption depending on the dyeing process. If a fixed maximum allowable water consumption value were established, it could result in certain products no longer being available on the market. A transparent and scientifically sound data basis is essential to ensure the traceability and validity of the established standards. At this stage, setting quantitative targets is not effective, as reliable and comparable datasets are lacking. The primary focus should be on creating transparency throughout the entire supply chain to enable standardized and robust data collection in accordance with defined criteria. The usage phase of textile products, such as those in the sports sector, has not yet been systematically recorded. Therefore, the development of an appropriate methodology is necessary to enable realistic and practical evaluations.
1965	9.2.6.;Full section	We fully understand the JRC's need for data from the industry to develop the base case for environmental impacts for apparel. However, we would like to remind the COM and the JRC about the work undertaken by the industry during the past decade to develop the aspirational and voluntary framework PEFCR A&F and populating it with primary and secondary data. We believe it is unrealistic to assume that the industry would be able to submit relevant data for the base case within the span of the 2nd milestone consultation, particularly given that product, rather than facility data (which is what the industry gathers today) is asked for.
1966	9.2.6;3701-3707	From our perspective there is a general need for data to support decision-making in countries outside the EU. As stated in the report, environmental protection measures are often less stringent at the national level in these regions, but that does not mean that facilities do not implement BAT and European protection standards. Environmental impacts are influenced more by technologies, practices, and resource inputs than by geographic location alone. Efficient production technologies and sustainable practices can mitigate environmental impacts in any location. We recommend shifting the focus to the technology level to create stronger incentives for improvement among low performing producers in these countries. This approach ensures that producers meeting European limit values are not penalized unnecessarily. Data on facility level is also more easily available than data at product level as impacts are measured on facility level and many facilities often produce a variety of products using variable settings of production lines and different products for more than one brand.
1967	9.2.6;3701- 3758	Although the aim of the ESPR is to set eco-design requirements to promote the circularity of products, notably textiles, the methodology proposed for the LCA is based on a linear perspective, without taking into account circular models, such as recycling processes.
1968	9.2.6 Environmental impacts;3,701 ff.	Section 9.2.6.1 The ecosystem affecting the environmental impacts, line 3,710 ff: We disagree to the binary division of production conditions into EU and the three major manufacturing countries China, India, and Bangladesh. First of all, there are additional countries that substantially produce textiles, such as Turkey, Pakistan or Vietnam (see e.g. the WTO trade statistics, annual merchandise export for textiles at

ID	Section & line	Comment
		https://stats.wto.org/?idSavedQuery=0bdfe0cc-d9f5-4473-a065-35cd612377d5). Secondly, the binary division concludes that the non-EU producing countries are characterised by higher emission into the environment compared to what happens in EU. However, this section is missing to include the application of voluntary industry policies and standards that are widely applied in the sector: • Roadmap To Zero (https://www.roadmaptozero.com/documents) • Bluesign (https://www.bluesign.com/en/business/downloads) • GOTS - Global Organic Textile Standard (https://global-standard.org/resource-library/standard-and-certification) • OEKO-TEX® Sustainable Textile and Leather Production (STeP) (https://www.oeko-tex.com/en/our-standards/oeko-tex-step) • Higg Index (https://howtohigg.org/fem-user-selection/fem-facility-users-landing/an-introduction-to-fem/) Though these policies and standards vary in their ambition level, the implementation of these standards should be considered in defining the base case conditions in addition to less stringent legislation in countries where textile production takes place. The end of life of the Base Case is described by landfilling and incineration of textile waste in the EU and in third coun-tries. We would like the JRC to take a closer look at the waste management practices of incineration and landfilling in the EU, including legal requirements on landfilling in the EU and separate collection of textiles; and in third countries whether they are carried out under comparable conditions. The following environmental aspects have not been addressed in this section, though they were brought forward as main factors influencing the negative environmental impacts and in the market analysis as main elements affecting the production of textile ap-parel: • Microplastic / Pollution originated from textile fragmentation • Water efficiency and the sourcing of water • Energy efficiency As these aspects are not considered in the description of the Base Case, how will they be tak-en up in the development of design options? In general, we do not expect that performance requirements can be set for environmental impacts. Instead possible formats of information requirements could support the application of the voluntary industry policies and standards and / or could help to determine a bench-marking in the future. The current research project commissioned by the German Environ-ment Agency will develop a proposal for information requirements that can be made available to the JRC.

ID	Section & line	Comment
1970	Chapter 9;3701	Since a growing amount of textiles products are made with plastics the shedding of microplastics is a growing problem. Although microplastics are part of task 5, these should not be forgotten in the text of 9.2.6 on several occasions, as the end up in water, soil and air. During production, user phase and in waste (which also often ends up in third countries with no proper waste management f.i. as secondhand goods).
1983	9.2.6 Environmental impacts;3702 - 3897	The industry would like to inquire why the JRC in its environmental assessment does not assess different production techniques and their impacts and innovations applied to reduce those impacts but instead chooses the proxy of legislation to compare a limited and incomplete number of apparel production rules between the EU and a few selected countries to define BC and BAT. We believe that this approach chosen leads to an oversimplification and a misrepresentation of environmental impacts of apparel products: • The study remains incomplete and only covers a limited number of countries and local legislation regarding textile manufacturing across the globe as shown by previous submissions made to Task 1. • The study does not recognize widely applied industry standards nor takes into account widescale investments in renewable technology by sourcing partners. A review of legislation only is not able to fully represent actual measures undertaken on the ground, thereby not allowing for an adequate assessment of environmental impacts in production that could be a scientifically sound basis for legislation. • The environmental impact assessment conclusions are overly simplified and undifferentiated when noting "(…), producing textile apparel outside of the EU increases the environmental impact of the final product". For example, antimony emission legislation for textile production in China is among one of the strictest globally. • The study's conclusion on emission limits are at times incomplete and not accurate. As an example, we would like to highlight the assessment of emission limits for production in China in Table 53. The JRC is basing its conclusion on a comparison of BAT undertaken by the OECD. In its study the OECD notes that the China BAT was not taken into account: "China adopted their Guideline on available techniques of pollution prevention and control (GATPPC) for textile industry in 2021. The OECD Secretariat was not able to include this GATPPC document within the cross country comparison of BREFs submitted due to its publication date, however would like to acknowledge its value here. The JRC notes in a footnote in the 1st milestone that "Meanwhile, the analysis of the Chinese BREF was performed thanks to a machine translation of the document found on the internet." Based on this translation, we understand that the JRC concludes in Table 53 that emissions for Chromium and Zinc are "n/a: Not Addressed" in China. In this context we would like to share the following comments and questions" • We would like to highlight that the Chinese GATPPC is not the only document to be utilized to identify textile production rules in China. Other Chinese standards include relevant emission limits. Regarding the conclusions in Table 53, we would like to clarify that China has established a wide range of emission limits including on chromium and zinc. Furthermore, the COD limit maximum value is considerably lower than noted here. Various Chinese provinces established stricter regional limit values. Lastly, the presentation of the EU limit values does not acknowledge the wider range of emission limits provided via the footnotes in the EU BREF document for certain application. We strongly call for the JRC to review its assessment of production rules in non-EU countries to remove these inaccuracies and for China as a minimum to take into account the following rules: Discharge Standard of Water Pollutants for Textile Dyeing and Finishing Industry (GB 4287-2012), Integrated Wastewater Discharge Standard (GB 8978-1996), Discharge Standard of Main Water Pollutants for Textile Industry in Jiangsu Province (DB 32/3432-2018), Water Pollutant Discharge Standard for Textile Industry in Zhejiang Province (DB 33/ 962-2015), Water Pollutant Emission Limits of Guangdong Province (DB 44/26-2001). We strongly recommend reviewing this part of the study to remove inaccuracies, provide a complete assessment of the laws, best practices and process investments made across the global supply chain and ensure that manufacturing countries and companies are fully consulted to

ID	Section & line	Comment
		validate these outcomes. Ecodesign measures based on theoretical conclusions not taking into account real life environmental impacts of production techniques will at best risk misrepresenting sustainability performance and at worst legislate the lowering of standards and disincentivize the continued investments undertaken in more sustainable production techniques.
1984	9.2.6;3702 to 3897	Environmental impacts: We do not understand why this section does not address the production processes associated with raw material extraction and cultivation which typically have very significant environmental impacts depending on the fibre type and the cultivation method of natural fibres. Unfortunately, this gap and related inconsistencies are also evident when looking at the system boundaries applied for synthetic vs. natural fibres within the framework of the LCA/LCC model presented by JRC. And while we realise that a more detailed analysis of the environmental impacts will be done within Task 5, we believe that it is important to address the following fundamental topics already now: Assessing the environmental impacts of a product is very complex and there can be very different outcomes depending on the selected scope, system boundaries, impact criteria, data collection methods or weighting of criteria. As a result, LCA and PEF methodologies are by nature subjective and susceptible to being influenced by vested interests. Any methodology used to identify and measure these impacts must therefore be developed by an independent body and with broad consultation, and it must be ensured that all relevant criteria and endpoints are included. The PEFCR for apparel and footwear as they are currently being developed - and the LCA/LCC model presented by JRC seems to be based on them in many respects - do not fulfil any of these conditions: Firstly, because they are discussed and defined in a non-transparent way by industrial stakeholders deeply tied to the production of plastic apparel, whereas other important stakeholders such as civil society organisations, MEPs and Member State authorities, or actors from the global value chain are either only involved as observers without voting rights or not represented at all. The PEFCR, secondly, do not consider microplastics (nor does the LCA/LCC model), which is why the EU Commission, in its proposed Green Claims Directive, expresses many concerns and doubts regarding the methodology and explicitly requests the inclusion of microplastics. Microplastic pollution, as described in our comment on Substances of Concern, must not be considered as one problem among many others but as an issue with outstanding importance and urgency because of the serious environmental and human health implications associated with it, and the worldwide increasing anxiety about its ubiquity. (1) (2) (3) The PEFCR (and the LCA/LCC model) also fail to adequately consider important positive impacts in terms of “biodiversity and nature protection, as well as farming practices, including positive externalities of extensive farming and animal welfare” (4), that natural, and especially organically produced natural fibres offer. Assessing these positive impacts would lead to a more balanced and comprehensive view of the environmental performance of textiles while recognising the contributions from especially organically produced natural fibres to a more sustainable textile industry but also to sustainable development, e.g., by providing employment and income opportunities for farmers and rural communities, as highlighted in the UN Resolution 78/169 of December 2023. (5) As stated in the proposed Green Claims Directive, considering the positive impacts described above must be a prerequisite for adopting PEFCR: “in case the Product Environmental Footprint method does not yet cover an impact category, which is relevant for a product group, the adoption of PEFCR may take place only once these new relevant environmental impact categories have been added.” (4) Thirdly, the PEFCR for textiles do not apply the same system boundaries for the cultivation or formation of natural respectively synthetic fibres

ID	Section & line	Comment
		(nor does the LCA/LCC model). Raw material acquisition, however, is typically the most impactful life stage for natural fibres, which results in a very inequitable comparison, not taking into account the very energy-intensive chemical reactions required to produce synthetic fibres (as described in Section 10.2 of the Preparatory Study). References: (1) Thompson, R.C., Courtene-Jones, W., Boucher, J., et al (2024): Twenty years of microplastic pollution research - what have we learned? | Science (2) Chartres, N., Cooper, C.B., Bland, G., et al (2024): Effects of Microplastic Exposure on Human Digestive, Reproductive, and Respiratory Health: A Rapid Systematic Review | Environmental Science & Technology (3) Nihart, A.J., Garcia, M.A., El Hayek, E. et al. (2025): Bioaccumulation of microplastics in decedent human brains | Nature Medicine (4) Proposal for a Green Claims Directive, Recital (32) (5) UN Resolution 78/169 of December 19, 2023: Natural plant fibres and sustainable development
1985	9.2.6;3704-3707	While we understand that this section does not aim to give a complete overview of the negative environmental impacts of the textile sector, we believe some important technologies are missing and should be mentioned: - Water recycling technologies to reduce water consumption, especially in the finishing phase - Different technologies for energy production, which will then have different GHG emissions. - Different sourcing practices for natural fibres, which contribute differently to biodiversity and soil health, among other environmental impact categories - Toxicity of the chemicals used during finishing is not stressed enough and most of the focus is on water use. Furthermore, technologies to reduce the toxicity of the finishing process should be presented. - Technologies to reduce the release of microplastics – which are not at all covered in the BREFF. These include manufacturing processes like industrial pre-washing, filters for wastewater, etc., as well as fibre and fabric design techniques to reduce the amount of microplastic shed from the apparel. For example, high-twist filament yarns reduce microplastic formation. For more information, see: https://www.eionet.europa.eu/etcs/etc-ce/products/etc-ce-products/etc-ce-report-1-2022-microplastic-pollution-from-textile-consumption-in-europe
1986	9.2.6;3704-3707	While we understand that this section does not aim to give a complete overview of the negative environmental impacts of the textile sector, we believe some important technologies are missing and should be mentioned: - Water recycling technologies to reduce water consumption, especially in the finishing phase

ID	Section & line	Comment
		- Different technologies for energy production, which will then have different GHG emissions. - Different sourcing practices for natural fibres, which contribute differently to biodiversity and soil health, among other environmental impact categories - Toxicity of the chemicals used during finishing is not stressed enough and most of the focus is on water use. Furthermore, technologies to reduce the toxicity of the finishing process should be presented. - Technologies to reduce the release of microplastics – which are not at all covered in the BREFF. These include manufacturing processes like industrial pre-washing, filters for wastewater, etc., as well as fibre and fabric design techniques to reduce the amount of microplastic shed from the apparel. For example, high-twist filament yarns reduce microplastic formation. For more information, see: https://www.eionet.europa.eu/etcs/etc-ce/products/etc-ce-products/etc-ce-report-1-2022-microplastic-pollution-from-textile-consumption-in-europe
1987	9.2.6;3704-3707	While we understand that this section does not aim to give a complete overview of the negative environmental impacts of the textile sector, we believe some important technologies are missing and should be mentioned: - Water recycling technologies to reduce water consumption, especially in the finishing phase - Different technologies for energy production, which will then have different GHG emissions. - Different sourcing practices for natural fibres, which contribute differently to biodiversity and soil health, among other environmental impact categories - Toxicity of the chemicals used during finishing is not stressed enough and most of the focus is on water use. Furthermore, technologies to reduce the toxicity of the finishing process should be presented. - Technologies to reduce the release of microplastics – which are not at all covered in the BREFF. These include manufacturing processes like industrial pre-washing, filters for wastewater, etc., as well as fibre and fabric design techniques to reduce the amount of microplastic shed from the apparel. For example, high-twist filament yarns reduce microplastic formation. For more information, see: https://www.eionet.europa.eu/etcs/etc-ce/products/etc-ce-products/etc-ce-report-1-2022-microplastic-pollution-from-textile-consumption-in-europe
1988	9.2.6;3704-3707	While we understand that this section does not aim to give a complete overview of the negative environmental impacts of the textile sector, we believe some important technologies are missing and should be mentioned: 1. Different technologies for energy production, which will then have different GHG emissions. 2. Different sourcing practices for natural fibres, which contribute differently to biodiversity and soil health, among other environmental impact categories, and may have a positive impact on both that need to be factored in
1989	9.2.6;3704-3707	While we understand that this section does not aim to give a complete overview of the negative environmental impacts of the textile sector, we believe some important technologies are missing and should be mentioned:

ID	Section & line	Comment
		- Water recycling technologies to reduce water consumption, especially in the finishing phase. - Different technologies for energy production, which will then have different GHG emissions. - Different sourcing practices for natural fibres, which contribute differently to biodiversity and soil health, among other environmental impact categories. - Toxicity of the chemicals used during finishing is not stressed enough and most of the focus is on water use. Furthermore, technologies to reduce the toxicity of the finishing process should be presented. - Technologies to reduce the release of microplastics – which are not at all covered in the BREF. These include manufacturing processes like industrial pre-washing, filters for wastewater, etc., as well as fibre and fabric design techniques to reduce the amount of microplastic shed from the apparel. For example, high-twist filament yarns reduce microplastic formation. For more information, see: https://www.eionet.europa.eu/etcs/etc-ce/products/etc-ce-products/etc-ce-report-1-2022-microplastic-pollution-from-textile-consumption-in-europe
1990	9.2.6;3708	While this section mentions that it does not seek to examine the entire environmental impact of textiles, it does not justify why. It starts directly with a discussion of the processing technique. However, omitting any mention of the raw materials and extraction phase neglects the significant impact that textiles have on the environment. For instance, the reliance on fossil fuels for fibre production. Raw material extraction overall represents an estimated 21% of the textile industry's emissions, as highlighted by the Circularity Gap Report 2024. This should at least be mentioned and the decision not to examine this in depth should be justified.
1991	9.6.2.1;3709-3758	How to calculate product Environmental footprint. Keeping in mind that the preparatory study does not clearly spell out how the described business models are related to environmental impact of products (see comments below), it is highly unclear how the process techniques referenced in this section would be connected to a specific product. The ability to reflect the type of energy used per product seems completely absent in the analysis. To be able to calculate the environmental impact of a product, such clarifications will be critical to make.
1992	9.2.6.1;3709-3758	We miss a chapter on environmental impact on raw material production level. This highlights certain data gaps related to process techniques, which are essential for conducting robust impact assessments. Therefore, the data included in the EF database should provide the necessary granularity to enable more accurate assessments. Since the industry has limited traceability to process techniques, it could be more relevant to look at changing to low emission energy sources (e.g. renewable energy) in production to make an impact. Rather than to focus on focusing efforts in getting information on processing techniques.
1993	9.2.6.1;3709-3758	How to calculate product Environmental footprint

ID	Section & line	Comment
		It is highly unclear in the analysis done by the JRC how the process techniques referenced in this section would be connected to a specific product. The ability to reflect the type of energy used per product seems completely absent in the analysis. To be able to calculate the environmental impact of a product, such clarifications will be critical to make.
1999	9.2.6;3712	On manufacturing processes: important to also raise that increasing production quality versus quantity would contribute to lessen the multiple environmental impacts being considered here.
2000	9.2.6;3713-3714	This section does not address the production processes associated with raw material extraction and cultivation, as it begins with yarn manufacturing techniques. Raw material extraction, whether from plants, animals, or the Earth (i.e., fossil fuels), represent 24% of the textile industry emissions (Source: ROADMAP TO NET ZERO: DELIVERING SCIENCEBASED TARGETS IN THE APPAREL, World Resources Institute and Apparel Impact Institute (Aii): roadmap-net-zero-delivering-science-based-targets-apparel-sector.pdf, p.11) While omitting raw material extraction/cultivation techniques does not imply that environmental impacts are assessed solely during the manufacturing stage, we encourage the JRC to explore these earlier stages in greater depth as part of the environmental and economic model (Task 5 LCA data collection) to provide a more comprehensive understanding of the industry's overall impact. TE recognizes the importance of having representative LCA data on fibre material extraction and initial production and as such is conducting seven LCA studies across the following fibers and materials: RWS Wool, RMS Mohair, Cashmere, Cotton, Polyester, Nylon and leather-hide. Results will be available from the end of 2025 through to mid 2026.
2001	9.2.6. Environmental Impacts;3713-3714	This section does not address the production processes associated with raw material extraction and cultivation, as it begins with yarn manufacturing techniques. The textile industry significantly contributes to rising GHG emissions through various processes, including the extensive use of fertilisers and pesticides for natural fibre production, land-use changes to expand agricultural areas, material production and finishing, and reliance on fossil fuels for both synthetic and natural fibre production. Raw material extraction, whether from plants, animals, or the Earth (i.e., fossil fuels), represent 21% of the textile industry emissions. (1) While omitting raw material extraction/cultivation techniques does not imply that environmental impacts are assessed solely during the manufacturing stage, we encourage the JRC to explore these earlier stages in greater depth as part of the environmental and economic model (Task 5). This would provide a more comprehensive understanding of the industry's overall impact. References:

ID	Section & line	Comment
		(1) Circle Economy (2024) Circularity Gap Report: Closing the Circularity Gap in the textile industry. https://cgr-reports.s3.eu-west-1.amazonaws.com/cgr-textiles-3a1e7a73/Circularity+Gap+Report+Textiles+-+20241129.pdf
2002	9.2.6.1;3714-3720	Excess of simplification is found in the definition of production processes, for example with regard to spinning, ring spinning and carding are compared, forgetting that the former leads to more refined and high value-added products while the latter is generally aimed at products in the medium-low market range. Similar considerations for weaving and finishing techniques are also available. There is a tendency to flatten the reality of the production contest which, on the contrary, also owes its strength and competitiveness thanks to the multitude of production processes.
2004	9.2.6.1 (page 136);3718-3720	Air-jet spinning is missing from this comparison.
2005	9.2.6.1;3725-3726	We believe weft knitting is a better terminology than straight knitting.
2006	9.2.6.1;3725-3726	We believe weft knitting is a better terminology than straight knitting.
2007	9.2.6.1;3725-3726	We believe weft knitting is a better terminology than straight knitting.
2009	9.2.6.1;3740	According to the European Sustainability Reporting Standards (ESRS), "water consumption" refers to the portion of water withdrawn that is not returned to the source, often due to evaporation, product integration, or contamination". On the other hand, “water withdrawal" refers to the total volume of water removed from natural sources (surface or groundwater), regardless of whether it is consumed, treated, or returned. Based on this, the provided quote should instead refer to "withdrawal." Referring incorrectly to "consumption" may overstate the environmental impact of a process, as it implies that the water is permanently removed from the system. Conversely, framing the issue as "withdrawal" provides a more accurate basis for understanding the process's water use, including opportunities for reuse, treatment, or return to the source.
2010	9.2.6.1;3740	Dying process & water consumption. According to the European Sustainability Reporting Standards (ESRS), "water consumption" refers to the portion of water withdrawn that is not returned to the source, often due to evaporation, product integration, or contamination". On the other hand, “water withdrawal" refers to the total volume of water removed from natural sources (surface or groundwater), regardless of whether it is consumed, treated, or returned. Based on this, the provided quote should instead refer to "withdrawal." Referring incorrectly to "consumption" may overstate the environmental impact of a process, as it implies that the water is permanently removed from the system. Conversely, framing the issue as "withdrawal" provides a more accurate basis for understanding the process's water use, including opportunities for reuse, treatment, or return to the source.
2014	9.2.6.1;3745-3747	Dying process & water consumption. As discussed above, the provided quote should instead refer to "withdrawal", in line with the European Sustainability Reporting Standards (ESRS).
2017	9.2.6.1;3752	When calculating environmental impact, it's essential to know the impact of different processes, and which are less impactful than others.
2018	9.2.6;3756	A comment on the conlusion "recycling is a preferred pathway for most of the environmental impact categories" Recycling might not be the final solution for all different environemental categories? The current technic and processes need some more

ID	Section & line	Comment
		development: See report below - to comfirm the above comment: Does large-scale textile recycling in Europe reduce climate impact? A consequential life cycle assessment https://ivl.diva-portal.org/smash/get/diva2:1815815/FULLTEXT01.pdf
2019	Chapter 9;3757	"In essence, ..."): This is true, but the relevant question (for ESPR) is how the environmental impact can be assessed.
2020	9.2.6;3759-3804	- We would like to emphasize the necessity of robust scientific research to gather scientifically valid data that underpins the inclusion of parameters based on business models in measuring a product's environmental footprint. Without a comprehensive understanding, there is a risk of oversimplifying or misrepresenting the environmental impacts associated with different business models. For example, on the relationship between a product's time of wear and its environmental impact during manufacturing - We strongly recommend JRC to consult with [...] in task 5 as there are currently no standards for e.g. testing microplastics release through the lifecycle.
2021	9.2.6.1;3759-3804	Business models of economic operators in the ecosystem. The section does not clearly spell out how the described business models (especially consumer-led VS brand-led, integrated VS centralised approach, trend turnover, production time), are related to environmental impact of products. In our view, the choice of a particular supplier/producing facility in a particular geography is a key business decision that impacts the environmental impact of products significantly. This aspect is completely overlooked in the analysis of the JRC, and we strongly recommend including such elements.
2022	9.2.6.1;3759 - 3804	Reminder that the ESPR regulates products, not business models The analysis of certain business models in this section does not clearly spell out how the described business models (especially consumer-led VS brand-led, integrated VS centralised approach, trend turnover, production time), are related to environmental impact of specific products. We would like to strongly underline that ESPR regulates products, and not business models and therefore the full business model analysis reads arbitrary.
2023	9.2.6;3759-3804	While it is more difficult to ensure transparency and compliance credibility for non-EU facilities, the wording included in the JRC Task 4 risks of being oversimplistic of a very complex reality. From our perspective there is a general need for data to support decision-making in countries outside the EU. The study remains incomplete and only covers a limited number of countries and local legislation regarding textile manufacturing across the globe as shown by previous submissions made to Task 1. Environmental protection measures are often less stringent at the national level in these regions, but this does not mean that all non-EU facilities fail to implement important European protection standards and technologies. Environmental impacts are influenced more by technologies, practices, and resource inputs than by geographic location alone. Efficient production technologies and sustainable practices can mitigate environmental impacts in any location. We suggests changing the wording with the following: "the location of different stages of the supply chain can also affect the environmental impact of products." Additionally, the statement that outsourcing the transformation process to third countries is linked to lower labour costs and less stringent environmental regulations is not necessarily accurate and oversimplistic. The choice of outsourcing is often driven by practical considerations

ID	Section & line	Comment
		such as the availability of raw materials rather than just cost or regulatory differences. For example, much of the cotton and polyester, key fibres in the textile industry, is sourced from countries like India, China, or Pakistan, where these materials are abundant. We emphasize the necessity of robust scientific research to gather scientifically valid data that underpins the inclusion of parameters based on business models in measuring a product's environmental footprint. Without a comprehensive understanding, there is a risk of oversimplifying or misrepresenting the environmental impacts associated with different business models. For example, on the relationship between a product's time of wear and its environmental impact during manufacturing.
2030	9.2.6.1;3763-3764	This statement fails to acknowledge the diversity of business models that exist, such as those driven by street markets, supermarkets, small local stores, independent designers, and specialized sectors like sportswear or work clothing. These models, which span a broad spectrum of retail approaches, are crucial to understanding the complexity of the industry. The attempt to reduce these diverse and multifaceted business structures into two categories—consumer-led and brand-led—ignores the nuances that shape actual market behaviour. Furthermore, the tendency to link these business models to specific issues or challenges, despite acknowledging the absence of any clear cause-and-effect relationships, indicates a reliance on unfounded biases rather than grounded industry insights.
2031	9.2.6.1;3763-3764	Business models of economic operators in the ecosystem. This statement fails to acknowledge the diversity of business models that exist, such as those driven by street markets, supermarkets, small local stores, independent designers, and specialized sectors like sportswear or work clothing. These models, which span a broad spectrum of retail approaches, are crucial to understanding the complexity of the industry. The attempt to reduce these diverse and multifaceted business structures into two categories—consumer-led and brand-led—ignores the nuances that shape actual market behaviour. Furthermore, the tendency to link these business models to specific issues or challenges, despite acknowledging the absence of any clear cause-and-effect relationships, indicates a reliance on unfounded biases rather than grounded industry insights.
2035	9.2.6.1;3771-3777	Business models of economic operators in the ecosystem. The phrase "trend turnover is a fundamental factor that defines a business model" is broad and somewhat vague. It doesn't specify how this applies universally across industries or within a specific context, making it difficult for policymakers to extract actionable insights. The cause-effect relationship is based on unverified assumptions. The occurrence of two events simultaneously does not necessarily indicate a connection between them. For instance, business models that adapt their designs to rapid trends are not inherently linked to obsolescence and early disposal. A business model focused on meeting customer demands can adapt its offerings to match demand, thereby reducing excess inventory and increasing profitability. This approach does not imply, nor is there any evidence to suggest, that such retailers do not prioritize durability. The document appears to connect these two factors without data to support the link, leading to conclusions based on unsupported premises.
2038	9.2.6.;3779-3781	The section states that: "Shorter production times increases the probability of manufacturing errors. This also increases the generation of waste, due to the required destruction of products that cannot be sold." What source has the JRC referred to here? Longer lead times do not necessarily indicate longer production times. There are other processes involved in lead times, such as the delivery process, which has a greater impact on lead times than production.
2040	9.2.6.1;3780-3781	Business models of economic operators in the ecosystem, The section states that: "Shorter production times increases the probability of manufacturing errors. This also increases the generation of waste, due to the required destruction of products that cannot be sold." Please elaborate on the relationship between short production times and manufacturing errors, as well as the reference/source.

ID	Section & line	Comment
		Longer lead times do not necessarily indicate longer production times. There are other processes involved in lead times, such as the delivery process, which has a greater impact on lead times than production.
2042	9.2.6.1;3782-3783	We appreciate that the different environmental impact of various means of transportation is highlighted. Air cargo is highly polluting and should never be allowed for the transportation of apparel. However, we invite the JRC to be more granular in their analysis of means of transportation. For instance, even among trucks there are major differences, based on the emission levels of various trucks. All these differences should be highlighted in the technology section.
2043	9.2.6.1;3782-3783	We appreciate that the different environmental impact of various means of transportation is highlighted. Air cargo is highly polluting and should never be allowed for the transportation of apparel. However, we invite the JRC to be more granular in their analysis of means of transportation. For instance, even among trucks there are major differences, based on the emission levels of various trucks. All these differences should be highlighted in the technology section.
2044	9.2.6.1;3782-3783	We appreciate that the different environmental impact of various means of transportation is highlighted. Air cargo is highly polluting and should never be allowed for the transportation of apparel. However, we invite the JRC to be more granular in their analysis of means of transportation. For instance, even among trucks there are major differences, based on the emission levels of various trucks. All these differences should be highlighted in the technology section.
2045	9.2.6.1;3784	This should be reworded to reflect the complexity of the value chain and that producing textile apparel outside of the EU is not always synonymous with an increase in the environmental impact of the final product. The environmental impact of a product should be firmly rooted in the case-by-case data and not generalisations about location or fibre.
2046	9.2.6.1;3784-3792	Here and in other parts of the section, it is made clear that there are different environmental impacts to be considered inside an outside of the EU. The EU has stricter regulation and requirements on more or less all kinds of relevant emissions, which is a high burden for companies (range of substances and processes to be carried out, connected bureaucracy) and leads to outsourcing of at least parts of the production chain. Whereas this is a correct and well-known observation it is not clear how to circumvent or prevent such disadvantageous conditions for EU companies, but the overall goal seem to aim at even worsening the situation.
2047	9.2.6.1;3784	This should be reworded to reflect the complexity of the value chain and that producing textile apparel outside of the EU is not always synonymous with an increase in the environmental impact of the final product. The environmental impact of a product should be firmly rooted in the case-by-case data and not generalisations about location or fibre.
2048	9.2.6.1;3784	Business models of economic operators in the ecosystem. Environmental impacts are influenced more by technologies, practices, and resource inputs than by geographic location alone. Efficient production technologies and sustainable practices can mitigate environmental impacts in any location. Suggestion: “The location of different stages of the supply chain can also affect the environmental impact of products.”
2049	9.2.6.1;3784-3789	Business models of economic operators in the ecosystem. The statement that outsourcing the transformation process to third countries is linked to lower labour costs and less stringent environmental regulations is not necessarily accurate. The mere occurrence of two factors does not imply a direct connection. The choice of outsourcing is often driven by practical considerations such as the availability of raw materials rather than just cost or regulatory differences. For example, much of the cotton and polyester, key fibres in the textile industry, is sourced from countries like India, China, or Pakistan, where these materials are abundant. Given that Europe's contribution to global cotton and polyester production is less than 5%, it is

ID	Section & line	Comment
		logical for companies to outsource the processing of these materials to regions closer to their source, rather than focusing on labour or regulatory conditions in the production phase.
2051	9.2.6.1.;3784-3792	Here and in other parts of the section it is made clear that there are different environmental impacts to be considered inside an outside of the EU. The EU has stricter regulation and reguirements on more or less all kind of relevant emmissions, which is a high burden for companies (range of substances and processes to be carried out, connected bureaucracy) and leads to outsourcing opf at least parts of the production chain. Whereas this is a correct and well known observation it is not clear how to circumenvent or prevent such disadvantagoues conditions for EU companies, but the overall goal seem to aim at even worsening the situation.
2052	9.2.6.1;3784	We appreciate the discussion of the location of different stages in the supply chain, but disagree with the conclusions, in particular the default equating of producing textile apparel outside of the EU with an increase in the environmental impact of the final product. This broad generalisation will not be helpful in identifying the environmental footprint of a product. In the further work on the Task 4 report, we recommend modifying this sentence to reflect the nuance. This would ensure the report is conducive to designing policy options in the upcoming tasks. Indeed, a report published by the Geneva Center for Human Rights (https://apparelinsider.com/location-not-fibre-type-impact-fashion-emissions/) has determined that a product's location is the biggest driver for fashion emissions rather than fibre type. However, this does not mean immediate correlation. Transportation: As this report by Public Eye (https://www.publiceye.ch/fileadmin/doc/Magazin/2311_PublicEye_Magazin_44_F_72.pdf) demonstrates, while transportation does contribute to emissions, the environmental impact of shipping textiles by boat is minimal, accounting for only about 3% of a product's total emissions. In contrast, air freight significantly increases emissions, with transport by plane contributing up to 27% of a product's footprint. Unfortunately, companies like Shein are increasingly relying on air transport, exacerbating this issue. EU cannot be compared to non-EU: Moreover, while it is true that textiles manufactured in countries that rely heavily on coal for energy have a larger carbon footprint, this assertion overlooks the fact that some EU countries also still use coal in their energy mix. Additionally, raw materials for textiles often come from non-EU countries, which also requires transportation and adds to the product's overall emissions. The broad definition does not account for differentiation on company level:

ID	Section & line	Comment
		It is also entirely possible for production to take place in environmentally friendly ways in third countries, and it is possible for the overall balance of all ecodesign product aspects to be better for products produced outside of the EU. Vice versa, it is possible for a product produced entirely in the EU to have been done with inefficient use of energy and water. Notably, actors around the world are undergoing a significant shift and move towards low-carbon industry, with for instance artisan manufacturers paying particular attention to resource-responsible manufacturing even if outside of the EU. For instance, Fairtrade International certified cotton producer in Pakistan have been recorded to invest in solar panels to power their motors for tilling and harvesting cotton, at their own cost. The suppliers part of the Science Based Targets have also committed to net-zero production (see for instance the suppliers in Bangladesh: https://sciencebasedtargets.org/companies-taking-action#dashboard). It should be encouraged for buyers to support producers in making such investments and decarbonise their production. As such, the environmental impact of a product should be firmly rooted in the case-by-case data.
2056	9.2.6.1;3793-3798	The assumption that a product used by multiple consumers automatically leads to a longer lifespan or reduced environmental impact is overly simplistic. For example, a garment that is worn by several people throughout its rental lifecycle could still be discarded after the same number of uses as a garment owned by one individual. Instead of focusing on niche business models like rental services, the study should concentrate on the broader, more impactful areas of the industry, where there is a larger potential for improving sustainability and reducing waste.
2057	9.2.6;3793	Rental of textiles is assumed to increase use phase and therefore related wear and presented as problematic, this is partly correct (and also applicable to second-hand clothing) but must be balanced with the reduction of impacts and of emissions achieved by the avoided production of new items! The bigger picture is again missing here.
2058	9.2.6.1;3793-3798	Business models of economic operators in the ecosystem. The section states: "products sold under this business model (sold as a service rather than a product) produce lower environmental impacts, due to the higher intensity of use among different users across their lifetime". Please elaborate on this. Is there a reference/source? The assumption that a product used by multiple consumers automatically leads to a longer lifespan or reduced environmental impact is overly simplistic. For example, a garment that is worn by several people throughout its rental lifecycle could still be discarded after the same number of uses as a garment owned by one individual. Instead of focusing on niche business models like rental services, the study should concentrate on the broader, more impactful areas of the industry, where there is a larger potential for improving sustainability and reducing waste.
2060	9.2.6;3793-3798	The section states: "products sold under this business model (sold as a service rather than a product) produce lower environmental impacts, due to the higher intensity of use among different users across their lifetime" The assumption that a product used by multiple consumers automatically leads to a longer lifespan or reduced environmental impact is overly simplistic. For example, a garment that is worn by several people throughout its rental lifecycle could still be discarded after the same number of uses as a garment owned by one individual. Instead of focusing on niche business models like rental services, the study should concentrate on the broader, more impactful areas of the industry, where there is a larger potential for improving sustainability and reducing waste.
2063	9.2.6.1;3797-3798	Business models of economic operators in the ecosystem.

ID	Section & line	Comment
		The section states: "products sold under this business model (sold as a service rather than a product) produce lower environmental impacts, due to the higher intensity of use among different users across their lifetime". Please elaborate on this. Is there a reference/source? The assumption that a product used by multiple consumers automatically leads to a longer lifespan or reduced environmental impact is overly simplistic. For example, a garment that is worn by several people throughout its rental lifecycle could still be discarded after the same number of uses as a garment owned by one individual. Instead of focusing on niche business models like rental services, the study should concentrate on the broader, more impactful areas of the industry, where there is a larger potential for improving sustainability and reducing waste.
2064	9.2.6.1;3797-3798	Business models of economic operators in the ecosystem. We disagree with this statement for two reasons. On the one hand, extending the lifespan of an item only reduces the impact of the function it serves and, therefore, reduces the user's impact. The manufacturing of an item has a fixed environmental impact regardless of how long it is used. On the other hand, companies whose business model is based on renting products tend to have a massive portfolio to meet different consumer demands. For example, car rental companies, which have an extensive fleet that is renewed frequently. These two factors should be considered and evaluated before making such a strong statement.
2066	9.2.6.1;3799	Products made for PSS business models seem to be described with negative connotation, however PSS is seen in the Lansink scale as a priority and the very concept of creating more durable products has been widely discussed as one of the priority challenges.
2067	9.2.6;3799	Products durability is not the enemy of their environmental footprint! This paragraph presents better quality textile as having superior environmental impacts which is incorrect.
2068	9.2.6.1;3799-3802	Business models of economic operators in the ecosystem. The section states: "Textile apparel that is commercialized as a service will need higher levels of physical durability, which can require for example a more dense fabric with higher amount of fibres and electricity compared to products with lower performances." From our experience, this is true in terms of material use/fabric choices, but not always in terms of electricity use in production. Can the JRC highlight what sources it is referring to here?
2069	9.2.6;3799-3802	The section states: "Textile apparel that is commercialized as a service will need higher levels of physical durability, which can require for example a more dense fabric with higher amount of fibres and electricity compared to products with lower performances." From our experience, this is true in terms of material use/fabric choices, however not always in terms of electricity use in production. Can the JRC highlight what sources it is referring to here?
2072	9.2.6.1;3805	We ask the JRC to include in this section some considerations related to the driving factors that lead consumers to overconsuming textile products. The paragraph correctly identifies certain social norms, but lacks to mention the role of marketing techniques to steer consumers' choice.This has become particularly relevant in the case of digital companies using choice architecture interfaces (i.e., options presented to consumers) to skew consumers towards choices that serve their own commercial interest. Businesses also resort to surveillance advertising, using algorithms to target consumers based on data about their interests, weaknesses and life circumstances. The use of shady practices to distort consumers' economic behaviour is nothing new, but it takes on a new dimension with the massive collection of behavioural data and the use of technology to steer behaviour. This phenomenon is known as "deceptive design" or "dark patterns" and relies on design tricks that influence or impair the autonomy, decision making or choice of customers, nudging or persuading them into decisions that they would otherwise not have made.

ID	Section & line	Comment
2073	9.2.6.1;3807	Consumer responsibility through not seeking information before making purchase decisions should be linked to producers who are not making that information readily accessible (a problem which could potentially be solved with the EU product digital passport).
2074	9.2.6;3807	Consumer responsibility through not seeking information before making purchase decisions should be linked to producers who are not making that information readily accessible (a problem which could potentially be solved with the EU product digital passport).
2075	9.2.6.1;3807	Consumer responsibility through not seeking information before making purchase decisions should be linked to producers who are not making that information readily accessible (a problem which could potentially be solved with the EU product digital passport).
2076	9.2.6.1;3807-3808	User behaviour. The statement does not align with recent consumer trends. For instance, surveys conducted in Spain suggest that 75% of people purchase only the garments they need, indicating a more practical and need-driven approach to clothing consumption. Reference (page 8): https://gestionresiduotextil.org/wp-content/uploads/2024/04/estudio-gestion-residuo-textil.pdf
2078	9.2.6.1;3807	Consumer responsibility through not seeking information before making purchase decisions should be linked to producers who are not making that information readily accessible (a problem which could potentially be solved with the EU product digital passport).
2080	9.2.6.1;3808	We ask the JRC to better contextualize the statement that only a minority of consumers inform themselves correctly before buying apparel. Currently, consumers do not have access to reliable information about the sustainability of their products, including textiles. Misleading sustainability claims are commonplace and contribute to consumer's confusion and lack of trust in sustainability labels. Too often green claims and labels are not backed with robust independent evidence and imply that the entire product is sustainable, while the real improvement is small and may relate only to one aspect. For instance, clothes are marketed as sustainable just because they are made of recycled fibres, while disregarding greater impacts due to poor manufacturing processes and working conditions. Claims offering a false image of products' sustainability are unfair for consumers and cause bad decisions, including paying premium for clothes that are not truly sustainable and reinforcing overconsumption behaviors.
2081	9.2.6.1;3810-3813	Supporting evidence to link between consumer choices & environmental impact. The causal link between consumer choices and environmental impact is stated broadly without specific evidence or data to quantify the effect. The phrasing "they are contributing - possibly unknowingly" introduces subjective language. Documents made to inform policymaking should aim for neutral, objective language that does not introduce a biased framework. Terms like "fast trend turnovers" and "short production times" are not defined, leaving their specific characteristics open to interpretation.
2086	9.2.6.1;3816, 3823-31, 3839-40	There is an over-emphasis here on consumers' impact. The use phase is not everything, focus should be on impacts elsewhere and not limited to blaming consumers.
2087	9.2.6;3816, 3823-31, 3816, 3823, 3839	Over-emphasis on consumers' impact through storing and folding when supply chain workers' behaviour during manufacturing, storage, distribution and transport of textiles is not highlighted. Use phase is not everything, focus should be on impacts elsewhere and not limited to blaming consumers!
2088	9.2.6.1;3816, 3823-31, 3839-40	There is an over-emphasis here on consumers' impact. The use phase is not everything, focus should be on impacts elsewhere and not limited to blaming consumers.
2089	9.2.6.1;3818-22	This wording should be deleted as it serves to shift the responsibility away from producers and distributors. The responsibility again is not solely with consumers or societal pressure, we need the textile sector to take a fair share of the responsibility here.
2090	9.2.6;3818-22	This cannot be blamed on society. Would ask for this to be deleted, as these things we cannot control nor influence are just used as arguments to shift the responsibility away from producers and distributors. The responsibility again is not solely with consumers or societal pressure, we need the textile sector to take a fair share of the responsibility here.

ID	Section & line	Comment
2091	9.2.6.1;3818-22	This wording should be deleted as it serves to shift the responsibility away from producers and distributors. The responsibility again is not solely with consumers or societal pressure, we need the textile sector to take a fair share of the responsibility here.
2092	9.2.6.1;3818-3822	Supporting evidence to statement. The statement appears to be overly speculative and outside the scope of a report, as it introduces an unnecessary focus on social norms rather than on tangible, evidence-based solutions to environmental impact. These norms can vary significantly between cultures, making it overly simplistic and potentially irrelevant for EU-wide action. Additionally, suggesting that such practices should be regulated seems unrealistic, as they pertain to cultural traditions and personal choices, which are not typically subjects for regulatory intervention.
2095	Chapter 9;3823-3831	I would suggest to also mention new business models for maintenance services, such as laundry as a service, which leads to less environmental impact. Report: Doe de was de deur uit 2 / Say goodbye to Laundry Day 2 - Textile Care Rearch (2023
2096	9.2.6.1;3830-3831	Supporting evidence to statement, This statement is extremely generalist. For example, choosing cotton, polyester or wool-made garment influences its environmental impact. Choosing whether the garment is easy ironing also has an impact on use stage. Deciding whether the garment is black or white affects it as well. A wrinkle-resistant garment probably will have less impact during the use phase, but probably the finishing processes will increase significantly the impact of the manufacturing process compared to other scenarios.
2100	Chapter 9;3832-3838	Not mentioned here is the environmental and socials effects of exporting secondhand apparel from EU to third countries, which will ultimately end up as waste in these countries. EEA and Dutch ministry have both done studies on this. https://www.government.nl/documents/reports/2024/02/02/destinations-of-dutch-used-textiles
2102	9.2.6.1 (page 138);3835-3836	The statement on perceived quality is indeed important. Neglecting it when setting thresholds and weights for physical durability based solely on simple testing may lead to an incomplete understanding of product quality.
2103	9.2.6.1;3836-3838	“Symbolic value”. The term "symbolic value" is ambiguous and lacks a clear definition, making it difficult for policymakers to understand or measure its impact. Without clarification, it risks being perceived as speculative or abstract. It is a subjective and highly individual factor, making it challenging to address through policy measures. The focus on "symbolic value" diverts attention from systemic factors, such as industry practices or structural barriers to recycling and reuse, which are more directly addressable by policymakers.
2106	9.2.6.1;3837-3838	“Symbolic value”. The environmental impact of a garment has two main components: a "fixed" part that depends on the garment itself (including materials, processes, distribution, and end-of-life), and a "variable" part corresponding to the impacts of its use (washing, ironing, etc.). Before making such statements, it is necessary to clearly define the system's function and the Functional Unit. If the Functional Unit is one garment, the impact of a durable garment will be much higher when considering the impact of its use. On the other hand, if the Functional Unit is wearing one garment once, the impact of that single use of a durable garment will be much lower, as the total impact is divided by the number of uses.
2114	9.2.6;3849-62	Non-EU manufacturing countries' lower environmental ambition should not be a pretext for inaction, however, this argument is used repeatedly throughout the report which is not a valid argument. Heavy metals pollution must be addressed in EU and beyond, and there are beneficial ripple effect and awareness-raising effects of EU legislation on pollution.

ID	Section & line	Comment
2115	Table 53. Environmental performance levels for emission into water in specific regions;3863	We would like to inquire as to the link source of the document and the source of the machine translated version of the internet. Is our understanding correct, that the JRC undertook an analysis of this translation and based its conclusions in Table 53 on this? Why have these specific pollutants been chosen as representative pollutants to define the ambition of production regulation for the textile sector?
2116	9.2.6.1;3863	Table 53: Environmental performance levels for emissions into water in specific regions. The COD limit values for China ranging 7-30 000 mg/L, which is wide enough to offer limited comparison value. It does not specify if this table is comparing direct discharge (more stringent) or indirect discharge (through municipal treatment plans, less stringent limit). In China, the limits depend on specific material process and provincial-level regulations. Section 5.7 and 10.5.2 of the 1st milestone referenced as source does not specify. Many in the industry follow the ZDHC tools in this context. The Roadmap to Zero Programme (ZDHC) is a collaborative, multi-stakeholder initiative that works with various stakeholders in the fashion industry to phase out hazardous chemicals from the global value chain of fashion. In case of some of our members, they follow the ZDHC Foundational limit, which is COD 150 mg/L.
2117	9.2.4.2.1;3863	Do the data in Table 53 come from scientific sources? This section and the conclusions are unclear.
2118	9.2.6;3863	Table 53: Environmental performance levels for emissions into water in specific regions The COD limit values for China ranging 7-30 000 mg/L, which is wide enough to offer limited comparison value. It does not specify if this table is comparing direct discharge (more stringent) or indirect discharge (through municipal treatment plans, less stringent limit). In China, the limits depends on specific material process and provincial-level regulations. Section 5.7 and 10.5.2 of the 1st milestone referenced as source does not specify. Many in the industry follow the ZDHC tools in this context. The Roadmap to Zero Programme (ZDHC) is a collaborative, multi-stakeholder initiative that works with various stakeholders in the fashion industry to phase out hazardous chemicals from the global value chain of fashion. In case of H&M Group, we follow the ZDHC Foundational limit, which is COD 150 mg/L.
2120	9.2.6.1 & 9.2.6.2;3874-3878, 3883-3885	Legislative framework & industrial best practices. The paragraphs is highly generic and penalizes non-European suppliers who are doing things well. Environmental impacts are influenced more by technologies, practices, and resource inputs than by geographic location alone. Efficient production technologies and sustainable practices can mitigate environmental impacts in any location. For example, Bangladesh is the country with most LEED Platinum facilities, with 61 out of the top 100 highest rated LEED certified factories in the world. Such developments highlight that robust environmental practices can and are being adopted voluntarily, even in countries with less stringent environmental regulations. Source: https://textilefocus.com/bangladesh-now-global-leader-with-229-leed-certified-green-factories/
2123	9.2.6.2;3879-3897	We strongly disagree with this approach to environmental impacts, where it is mainly evaluated where the product is manufactured (EU or outside). Also, how would it be possible to evaluate what is the business model of companies? This approach simplifies too much and is not focusing on the product.
2124	9.2.6.2;3879-3897	This assessment is subjective and not neutral, as well as contradictory. The complexity of the various parameters is described, and it is difficult to derive characteristics of product technologies from them, so how can a reasonable picture be created? This statement and further presentation are speculative.
2125	9.2.6.2;3879-3882	This assessment is subjective and not neutral, as well as contradictory. The complexity of the various parameters is described and it is difficult to derive characteristics of product technologies from them, so how can a reasonable picture be created? This statement and further presentation is speculative.
2126	9.2.6.2;3879-3897	We strongly disagree with this approach to environmental impacts, where it is mainly evaluated where the product is manufactured (EU or outside). Also, how would it be possible to evaluate what is the business model of companies? This approach simplifies too much and is not focusing on the product.
2129	9.2.6.2;3883	We don't agree with the BC, BAT, BNAT classification. The BC, BAT classification is not based on scientific figures and elements, but on “general” and “caricatured” characteristics. We need to establish a scientific method for classifying these impacts. The BC classification is a caricature because it is not realistic in view of the garment factories in these countries. These factories are audited,

ID	Section & line	Comment
		and are making efforts to improve their impacts. What's more, the various points listed to characterize the BC is a very simplistic view, which doesn't reflect the reality of all retailers who have their products manufactured in Asian countries. The BNAT classification is unclear. It is essential to rely on scientific elements to make a clear and precise classification on this scientific subject of environmental impacts.
2130	9.2.6.2;3885-3887	Legislative framework & industrial best practices. The statement assumes that users "tend to change frequently their wardrobe" without providing evidence or acknowledging variability in consumer habits. This generalization oversimplifies the issue and shifts undue responsibility to consumers rather than addressing systemic drivers. The claim that the Base Case promotes overproduction and overconsumption is unsupported by data or case studies, reducing its persuasiveness. The sentence does not clearly explain what constitutes the "base case" business model. While it implies that overproduction and overconsumption are central to the BC, it fails to define whether this reflects typical industry practices, a specific geographic focus, or another benchmark. This ambiguity makes it difficult to understand the scope or purpose of the BC analysis.
2132	9.2.6.2;3885-3886	By what factual elements would you define this business model? That's a very simplistic statement.

Annex 19. Comments on presence of substances & substances of concern

Table 42. Comments on presence of substances & substances of concern

ID	Section & line	Comment
2135	9.2.7; 3898-3907	Substances that are hazardous to health and/or environment considering long and short term exposition are regulated/restricted through REACH (Annex XVIII) or the POP regulation or, are already covered in the definition of SoC.. The reconsidering of a new grouping of substances beyond those three mentioned is creating a huge list which will be impossible to follow up with. Only CLP-based SoCs are almost 4000 substances and it will be hardly possible to follow up with the concerned SoCs also from an analytical point of view. It needs to be considered that defining a group of SoCs beyond existing regulation will in the end hinder any circular economy approaches as hardly any textiles will keep up with requirements such as recyclability or reusability. However, it is important to define clear thresholds and cut-off criteria for all SoCs considered, detections limits become increasingly lower due to analytical methods getting progressively more precise. The thresholds have to be linked with scientific evidence of harm, the detection limit is usually far below of relevant effect level.
2136	9.2.7 Presence of substances of concern; 3898 - 4123	The industry recognizes the importance of sustainability and chemical safety in the apparel and footwear sector. We strongly advocate for pragmatic, science-based regulations that improve transparency without stifling innovation, competitiveness, or circularity. We align with AFIRM's concerns, a globally recognized association that includes many of our members and brings extensive expertise in chemicals management. Like AFIRM, we support traceability of Substances of Concern (SoC) but emphasize that the Ecodesign for Sustainable Products Regulation (ESPR) must be implemented gradually to ensure realistic enforcement. Given the vast number of substances under the SoC definition, thorough impact assessments and stakeholder consultations are essential to avoid impractical obligations on businesses.

ID	Section & line	Comment
		A crucial factor in making SoC requirements effective yet practical is clear alignment with existing EU chemical regulations like REACH (Regulation 1907/2006). The SoC list must be specific, relevant to textiles, and harmonized with REACH, rather than adopting the broader CLP classifications (which apply to chemical substances, not finished products). An overly broad SoC list would create an unmanageable compliance burden without enhancing chemical safety in textiles. Instead, a phased approach is necessary, focusing first on CMR (Carcinogenic, Mutagenic, and Reprotoxic) substances, then gradually expanding to other classifications. Proposed SoC information requirements assume a reporting threshold of 0,1 % weight by weight and treatment of complex articles consistent with reporting obligations for Substances of Very Concern (SVHC) identified in accordance with Article 59(1) Regulation (EC) No 1907/2006 (REACH). The industry, proposes the following stepwise rollout: 1. First Phase (18 months after ESPR enforcement) • Substances of Very High Concern (SVHCs) (under REACH). • Persistent Organic Pollutants (POPs) (only above 0.1% weight-by-weight). Aligns with existing SCIP Database obligations; avoids unnecessary reporting of legally restricted POPs. 2. Second Phase (36 months after ESPR enforcement) • Carcinogenicity, mutagenicity, reproductive toxicity (CMR) categories 1 and 2. Apparel companies lack visibility into chemical formulations due to SDS disclosure limits (only required above 1%). Solution: Apply SoC disclosure first to chemical manufacturers, ensuring traceability and feasibility before extending to textiles. 3. Third Phase (54 months after ESPR enforcement) • Respiratory and skin sensitizers, aquatic toxicity, ozone depletion, target organ toxicity (single & repeated exposure). Modern textile dyes may be classified as sensitizers but lose their reactivity in textiles, reducing real-world risks. This must be considered when defining SoC reporting obligations. 4. Fourth/Final Phase (72 months after ESPR enforcement) • Endocrine disruptors (human & environmental), persistent and bioaccumulative chemicals. No harmonized classification under GHS, making SDS data unreliable. Requires new test methods, which take years to develop. Solution: Apply SoC rules to upstream chemical formulations first.

ID	Section & line	Comment
2137	9.2.7 Presence of substances of concern; 3898 - 4123	A critical concern is how chemical restrictions could negatively affect textile recycling. While no single chemical prevents mechanical textile recycling, legal limits under REACH and other EU laws can create unintended barriers: • Post-consumer recycled textiles may contain legacy chemicals that were legal at the time of production but are now restricted. • Secondhand garments with the same substances remain exempt, but recycled textiles struggle to comply, creating regulatory contradictions. Policymakers must ensure that chemical regulations do not undermine circularity goals by making post-consumer recycling impractical. To ensure that SoC disclosure under ESPR is realistic and effective, the industry urges policymakers to: • Adopt a phased implementation, prioritizing the most relevant substances first, rather than applying broad CLP classifications indiscriminately. • Recognize that chemical inventory data is only available at the facility level (tier 1), making full product-level traceability unrealistic. • Clarify that RSLs and MRSLs are not intended as chemical content disclosure tools and do not provide the traceability needed for full SoC compliance. • Ensure chemical restrictions do not disrupt textile recycling, allowing post-consumer textiles to remain viable within Europe's circular economy goals. AFIRM's structured approach allows gradual adaptation, ensuring accurate SoC reporting across thousands of chemicals while preventing unfeasible testing requirements. The 18-month phase-in intervals align with EU transition periods, ensuring that information is credible, traceable, and useful for regulators and consumers. A balanced, science-driven strategy is essential to protect human health and the environment while preserving innovation, global competitiveness, and circularity in the European textile industry.
2138	9.2.7; 3898-3944	- In general, we recommend that REACH and CLP are the governing instruments in the EU in defining groups of chemicals including SoC - For now, it is a very significant challenge that the proposal is very unspecific and potentially regulates thousands of substances of concern, and it is very unclear how this can be applied and enforced in practice. The applied substances of concern must be specific, relevant to textiles and materials. CLP is applicable for chemical products, not for textile articles where REACH should function as the primary regulatory framework. As a minimum for defining SoC, the CLP classifications must be prioritized, for example by focusing on CMR-classifications first and then apply a stepwise approach for including additional relevant classification to make the requirements specific. It could be recommended including AFIRM and / or other relevant industry organizations in this process (Section 9.2.7. Line 3898-3907. Heading 'Presence of substances of concern'. Topic 'General') - A robust evidence base on the usage of chemicals must not include more than tier 1 manufacturers Chemical Inventory Lists. Important to note that these lists are facility specific, not product specific. Product specific lists for more than tier 1 is often not available. This could be taken into consideration by the JRC (Section 9.2.7.1. Line 3942-3944. Heading 'Presence of substances of concern'. Topic 'Ecosystem of Substances of Concern - Manufacturing factors and process techniques').
2139	9.2.7.; 3898-3944	We need to find a way to ensure that the input material to post consumer fiber-to-fiber material is already REACH compliant. This could potentially be solved through traceability or through tests prior to the recycling process. A possibility would be to ask yarn producers to give input to this problematic.
2140	9.2.7; 3898	No additional regulatory layer via ESPR, as substances are already covered under existing regulations such as the REACH and POP regulations. These include, for example, azo dyes used for coloring garments and short-chain chlorinated paraffins, which are used as plasticizers in various textile products. Additional regulation could lead to duplicate regulations, creating unnecessary complexity for both businesses and regulatory authorities. Strict market monitoring of Asian platforms such as Shein and Temu should be conducted, as non-compliant products may enter material streams for recycling. Products from Shein and Temu are often not REACH-compliant, which could undermine the effectiveness of the new regulations. An integrated

ID	Section & line	Comment
		chemical management system that considers both the requirements of the REACH regulation and the demands of recycling is therefore essential to ensure that only safe materials enter the recycling process.
2141	9.2.7; Full section	Main question/main feedback: how does the JRC envision that SoC information requirements for apparel textiles will enable information flow in the supply chain, when such information requirements do not exist on chemicals mixtures (not even in the EU)?
2142	9.2.7; 3898-3907	As a minimum, the CLP classifications must be prioritized, for example by focusing on CMR-classifications first and then apply a stepwise approach for including additional classification to make the requirements specific and relevant. We strongly recommend including AFIRM and / or other relevant industry organizations in this process.
2143	9.2.7.1.; 3898-3907	Whereas it is still questionable to create a new group of so-called SoC next to SVHC, it is even more unclear why a separate group of substances is added that that should be flagged as having a negative impact on recycling and recyclability. Substances that a hazardous to health and/or environment considering long and short term exposition are (and will be) regulated/restricted through REACH (Annex XVIII) or the POP regulation or, which are already covered in the defintion of SoC.. The reconsidering of a new grouping of substances beyond those three mentioned is creating a huge list which will be impossibible to follow up with. Only CLP-based SoCs are almnost 4000 substances and it will be hardly possible to follow up with possible concerned SoCs also from an analyitical point of view. It furthermore needs to be considered that defining a group of SoC beyond existing regulation will in the end hinder any circular economy approaches as hardly any textiles will keep up with requirements such as recyclability or reusability. In the end the inititaives to create more circularity will be stopped before even properly started. However, it is important to define clear thresholds and cut-off criteria for all SoC considered, detections limits become increasingly lower due to analytical methods getting progressively more precise. The thresholds have to be linked with scientific evidence of harm, the detection limit is usually far below of relevant effect level
2144	9.2.7; 3898 to 4123	Presence of substances of concern: The ESPR must implement an ambitious, hazard-based approach to ban or demand the substitution of substances of concern, including microplastics, in textile products and in the entire textile value chain. To do so, it should set strict rules regarding any substances of concern present in the final product and in the textile waste, including microplastics, as well as used in the different processing stages. It must also include any chemicals used during the fibre production phase, including but not limited to the extraction of crude oil, the formation of synthetic fibres, and the production and use of pesticides and fertilizers, with the clear goal to eliminate any risks associated with hazards of the chemicals to human health, to biodiversity, the environment and climate. Regarding textiles made from synthetic fibres three aspects must be considered: Firstly, it is the microplastic particles themselves (resulting, according to a recent study, almost completely from the degradation of macro-plastics, which in the textile context means from synthetic textile waste leaking into the environment (1)), which pose very serious risks to human health and the environment and therefore should be defined as substances of concern. Secondly, there is great concern regarding the chemicals contained in these microplastic particles, such as the huge number of different chemicals related to Polyester (PET) polymers. A study published in January 2025 points out: “Some 2,566 chemicals are either marketed for use in PET, are present in PET, or are released from PET. Only 31 of these are known to be not hazardous, 31% are known to be hazardous, but the vast majority are without hazard data. In other words, they may be chemicals of concern, or they may not be. We just don’t know.” (1) Against the background of this uncertainty, and the fact that microplastics have been found in water, soil, air, and human bodies (including brains), the formation and spread of microplastics must be urgently prevented. Thirdly, there is growing evidence in the scientific community that chemicals used for the functionalization of textile products, such as e.g. PFASs (which can also be relevant for textiles made from natural fibres), have even more negative consequences when combined with microplastics: “The impact of PFAS is exacerbated by the presence of other persistent compounds, such as microplastics (MP), which can facilitate their sorption” (2) potentially amplifying each constituent’s concentration in the environment.

ID	Section & line	Comment
		In view of the ever-growing significance of microplastics, and the uncertainty regarding chemicals related to synthetic textiles, the ESPR must apply the precautionary principle. It generally must go beyond REACH and orientate itself on more ambitious approaches such as e.g., the SIN (Substitute It Now) List which consists of chemicals that have been identified by ChemSec as being Substances of Very High Concern (SVHC) based on the criteria defined within REACH and that should and could be removed in short term. (3) As in other areas of the ESPR, existing Voluntary Sustainability Standards (VSS) following the ISEAL Code (4) are a proven and effective instrument for creating transparency in the supply chain, providing clear guidance by defining positive lists, specifying exclusion and restriction of substances of concern (e.g., the strict prohibition of PFAS by GOTS), and monitoring compliance by ensuring regular independent verification. References: (1) Bates Kassatly, V., Townsend, T. (2025): The Treatment of Microfibers in Life Cycle Analysis and Product Environmental Footprint Applications (2) Soltanighia, T., Umar, A., Abdullahi, M., et al (2024): Combined toxicity of perfluoroalkyl substances and microplastics ... - ScienceDirect (3) SIN List: What is the SIN List? (4) ISEAL Code: What is ISEAL Code Compliant? | ISEAL Alliance
2145	9.2.7.1 Ecosystem of substances of concern; 3,898 ff.	Section 9.2.7.1, line 3,987 ff.: For Substances of Concern (SoC), no Base Case has been developed (in comparison to other product aspects). However, we consider that it could be beneficial to understand the status quo in the producing countries and possibilities to improve transparency and traceability in the use of chemicals. We suggest to verify whether the volun-tary industry approaches, which include requirements on chemical management could support the development of information requirements. Though the voluntary industry standards such as ZDHC (https://www.roadmaptozero.com/documents), bluesign (https://www.bluesign.com/en/business/downloads) or GOTS - Global Organic Textile Standard (https://global-standard.org/resource-library/standard-and-certification) are mentioned in the report (e.g. in market analysis), they are not taken into account regarding the presence of SoCs.
2147	-; -	PFAS are used for water and oil repellents. It gives good effect to product, other alternatives can not compared with them.
2163	9.2.7; 3899-3907	We should ask to add microplastics here based on the impact assessment carried out by EC in 2023 for the pellet loss regulation, with a reference to the recently adopted ESPR wording on microplastics.
2164	9.2.7; 3899-3907	We should ask to add microplastics here based on the impact assessment carried out by EC in 2023 for the pellet loss regulation, with a reference to the recently adopted ESPR wording on microplastics.
2165	9.2.7; 3899-3907	We suggest to add microplastics in here based on the impact assessment carried out by EC in 2023 for the pellet loss regulation, with a reference to recently adopted ESPR wording on microplastics.
2166	9.2.7; 3899-3907	We should ask to add microplastics here based on the impact assessment carried out by EC in 2023 for the pellet loss regulation, with a reference to the recently adopted ESPR wording on microplastics.
2167	Section 9.2.7 Presence of substances of concern; Line 3905 on specific SoC classes	We understand that there is a dedicated SoCs questionnaire ongoing, but we wanted to provide our preliminary comments on this topic. We support the listing of hazardous substances that pose a significant burden to dispose of, such as PFAS, heavy metals, CMR substances, or compounds considered process-damaging or inhibiting, such as chlorine compounds. The presence of substances of concern (SoC) would determine the extent to

ID	Section & line	Comment
	hindering recycling, page 140	which a product is recyclable and would be linked to ecomodulation. In other words, the easier the product is to recycle, the lower the ecomodulation fees would be, as recyclers need to handle existing chemistries that negatively affect recycling. These existing chemistries may increase the cost of the recycling process and the disposal of substances of concern. Therefore, various incentives and funding need to take this current situation into account and a transition to non-fluorinated DWR finishes' (Durable Water Repellent) should be fostered.
2170	9.2.7.1; 3924-3925	We would like this statement "it is acknowledged that chemicals play an essential role …" to be substantiated and/or attributed. Much of this sentence is subjective and can be interpreted in many ways, including "an essential role," "competitive textile apparel sector", and "satisfies the demands of consumers". In the situation we have now, when consumers – let alone supply chain actors – do not have full information about the substances present on or used in the production processes of their textile apparel products, how can anyone in this process actually know for sure what is satisfying the consumer or what role chemicals play? This question is not fully answered in the "user behaviour" section so we believe that the essential role comment should be further elaborated.
2171	9.2.7.1; 3924-3929	The risk assessment from the study is missing. The statement that 750 of the 2450 substances examined in the KEMI, 2014 study by the Swedish Chemicals Agency are hazardous to health and 440 are hazardous to the environment may create the misleading impression that these substances pose a significant risk and should be relevant as substances of concern. However, this interpretation does not sufficiently account for the fact that many of these substances are only problematic under specific exposure conditions, as outlined in the study. Consequently, the study itself refers to these substances as "substances of potential concern". Figure 8 of the KEMI, 2014 study presents a structures approach for the identifying substances of concern, incorporating (1) a prioritization of high hazard substances, (2) a prioritization of high and moderate textile relevant substances, and (3) the probable release from textiles. Applying these criteria significantly narrows the scope: of the initial 2450 substances, only 434 are relevant for textiles, and of these, only 138 exhibit a high and 53 a medium likelihood of release from textiles. A substantial number of these substances are already subject to regulation under Annex XVII of REACH or have been identified as substances of very high concern (SVHC) under REACH. This underscores the importance of distinguishing between theoretical hazard classification and actual risk in the context of textile applications.
2172	9.2.7.1; 3924-3925	We would like this statement "it is acknowledged that chemicals play an essential role …" to be substantiated and/or attributed. Much of this sentence is subjective and can be interpreted in many ways, including "an essential role," "competitive textile apparel sector", and "satisfies the demands of consumers". In the situation we have now, when consumers – let alone supply chain actors – do not have full information about the substances present on or used in the production processes of their textile apparel products, how can anyone in this process actually know for sure what is satisfying the consumer or what role chemicals play? This question is not fully answered in the "user behaviour" section so we believe that the essential role comment should be further elaborated.
2173	9.2.7.1; 3924-3925	We would like this statement "it is acknowledged that chemicals play an essential role …" to be substantiated and/or attributed. Much of this sentence is subjective and can be interpreted in many ways, including "an essential role," "competitive textile apparel sector", and "satisfies the demands of consumers". In the situation we have now, when consumers – let alone supply chain actors – do not have full information about the substances present on or used in the production processes of their textile apparel products, how can anyone in this process actually know for sure what is satisfying the consumer or what role chemicals play? This question is not fully answered in the "user behaviour" section so we believe that the essential role comment should be further elaborated.
2174	9.2.7.1.; 3924-3929	Misleading conclusion from the source, the risk assessment from the study is missing
2175	9.2.7.1.; 3924-3929	The statement that 750 of the 2450 substances examined in the KEMI, 2014 study by the Swedish Chemicals Agency are hazardous to health and 440 are hazardous to the environment may create the misleading impression that these substances pose a significant risk and should be relevant as substances of concern. However, this interpretation does not sufficiently account for the fact that many of these substances are only problematic under specific exposure conditions, as outlined in the study. Consequently, the study itself refers to these substances as "substances of potential concern". Figure 8 of the KEMI, 2014 study presents a structures approach for the identifying substances of concern, incorporating (1) a prioritization of high hazard substances, (2) a prioritization of high and moderate textile relevant substances, and (3) the probable release from textiles. Applying these criteria significantly narrows the scope: of the initial 2450 substances, only 434 are relevant for textiles, and of these, only 138 exhibit a high and 53 a medium likelihood of release from textiles. A substantial number of these substances are already subject to regulation under Annex XVII of REACH or have been

ID	Section & line	Comment
		identified as substances of very high concern (SVHC) under REACH. This underscores the importance of distinguishing between theoretical hazard classification and actual risk in the context of textile applications.
2176	9.2.7.1; 3924-3925	We would like this statement “it is acknowledged that chemicals play an essential role …” to be substantiated and/or attributed. Much of this sentence is subjective and can be interpreted in many ways, including “an essential role,” “competitive textile apparel sector”, and “satisfies the demands of consumers”. In the situation we have now, when consumers – let alone supply chain actors – do not have full information about the substances present on or used in the production processes of their textile apparel products, how can anyone in this process actually know for sure what is satisfying the consumer or what role chemicals play? This question is not fully answered in the “user behaviour” section so we believe that the essential role comment should be further elaborated.
2177	9.2.7.1; 3924-3929	The statement that 750 of the 2450 substances examined in the KEMI, 2014 study by the Swedish Chemicals Agency are hazardous to health and 440 are hazardous to the environment may create the misleading impression that these substances pose a significant risk and should be relevant as substances of concern. However, this interpretation does not sufficiently account for the fact that many of these substances are only problematic under specific exposure conditions, as outlined in the study. Consequently, the study itself refers to these substances as "substances of potential concern". Figure 8 of the KEMI, 2014 study presents a structures approach for the identifying substances of concern, incorporating (1) a prioritization of high hazard substances, (2) a prioritization of high and moderate textile relevant substances, and (3) the probable release from textiles. Applying these criteria significantly narrows the scope: of the initial 2450 substances, only 434 are relevant for textiles, and of these, only 138 exhibit a high and 53 a medium likelihood of release from textiles. A substantial number of these substances are already subject to regulation under Annex XVII of REACH or have been identified as substances of very high concern (SVHC) under REACH. This underscores the importance of distinguishing between theoretical hazard classification and actual risk in the context of textile applications.
2180	9.2.7.1; 3925	Do these 2014 studies only refer to apparel or wider textiles sector? It would be useful here to add references to the German study on microplastics or other more recent ones with relevant data on number of chemicals of concern in use in the sector. See for example: Chemical Management in Textiles and Fashion, Woodhead Publishing, 2021 (see Chapter 3 and pages 53-78 on chemical risk assessment in particular). Link: https://www.sciencedirect.com/science/article/abs/pii/B9780128204948000034 Textile dyeing industry: environmental impacts and remediation, Khattab at al., 2020 https://pubmed.ncbi.nlm.nih.gov/31838699/ Chemicals in textiles: A potential source for human exposure and environmental pollution, Giovanna Luongo, 2015 http://www.diva-portal.org/smash/record.jsf?pid=diva2%3A850089&dswid=-2448
2181	9.2.7.1; 3925	Do these 2014 studies only refer to apparel or wider textiles sector? It would be useful here to add references to the German study on microplastics or other more recent ones with relevant data on number of chemicals of concern in use in the sector. See for example: Chemical Management in Textiles and Fashion, Woodhead Publishing, 2021 (see Chapter 3 and pages 53-78 on chemical risk assessment in particular). Link: https://www.sciencedirect.com/science/article/abs/pii/B9780128204948000034 Textile dyeing industry: environmental impacts and remediation, Khattab at al., 2020 https://pubmed.ncbi.nlm.nih.gov/31838699/ Chemicals in textiles: A potential source for human exposure and environmental pollution, Giovanna Luongo, 2015 http://www.diva-portal.org/smash/record.jsf?pid=diva2%3A850089&dswid=-2448
2182	9.2.7.1; 3925	Do these 2014 studies only refer to apparel or wider textiles sector? It would be useful here to add references to the German study on microplastics or other more recent ones with relevant data on number of chemicals of concern in use in the sector. See for example: Chemical Management in Textiles and Fashion, Woodhead Publishing, 2021 (see Chapter 3 and pages 53-78 on chemical risk assessment in particular). Link: https://www.sciencedirect.com/science/article/abs/pii/B9780128204948000034 Textile dyeing industry: environmental impacts and remediation, Khattab at al., 2020

ID	Section & line	Comment
		https://pubmed.ncbi.nlm.nih.gov/31838699/ Chemicals in textiles: A potential source for human exposure and environmental pollution, Giovanna Luongo, 2015 http://www.diva-portal.org/smash/record.jsf?pid=diva2%3A850089&dswid=-2448
2183	9.2.7.1; 3925	Do these 2014 studies only refer to apparel or to the wider textiles sector? It would be useful here to add references to the German study on microplastics or other more recent ones with relevant data on number of chemicals of concern in use in the sector. See for example: Chemical Management in Textiles and Fashion, Woodhead Publishing, 2021 (see Chapter 3 and pages 53-78 on chemical risk assessment in particular). Link: https://www.sciencedirect.com/science/article/abs/pii/B9780128204948000034 Textile dyeing industry: environmental impacts and remediation, Khattab at al., 2020 https://pubmed.ncbi.nlm.nih.gov/31838699/ Chemicals in textiles: A potential source for human exposure and environmental pollution, Giovanna Luongo, 2015 http://www.diva-portal.org/smash/record.jsf?pid=diva2%3A850089&dswid=-2448
2184	9.2.7.1.; 3926	Misleading conclusion from the source, the risk assessment from the study is missing.
2185	9.2.7.1; 3927-3929	This highlighted passage should be emphasized more because recycled waste often gives rise to issues.
2187	9.2.7.1; 3930-3935	The mentioning of PFAS here is too generalized, an approach which was already not scientifically founded in most of the recent discussions. PFAS should not be considered as one group but clearly distinguished into polymeric and non-polymeric, plus it needs to be understood that there is an impact of molecular structure and chain length of molecules which requires a differentiated assessment of those substances when it comes to restriction and grouping them into possible SoCs lists. Overemphasis on PFAS as the primary risk. The JRC study presents the textile industry as the predominant source of PFAS emissions but does not differentiate between persistent fluorinated polymers (e.g. PTFE), which are highly stable, and mobile PFAS compounds that pose a greater potential risk. This lack of distinction may not adequately reflect the environmental and toxicological profiles within the PFAS group.
2188	9.2.7.1.; 3930-3935	The mentioning of PFAS here is too generalized, an approach which was already not scientifically founded in most of the recent discussions. PFAS should not be considered as one group but clearly distinguished into polymeric and non-polymeric, plus it needs to be understood that there is an impact of molecular structure and chain length of molecules which requires an differentiated assessment of those substances when it comes to restriction and grouping them into possible SoC lists. Overemphasis on PFAS as the primary risk. The JRC study presents the textile industry as the predominant source of PFAS emissions but does not differentiate between persistent fluorinated polymers (e.g. PTFE), which are highly stable, and mobile PFAS compounds that pose a greater potential risk. This lack of distinction may not adequately reflect the environmental and toxicological profiles within the PFAS group.
2189	9.2.7.1; 3930-3935	Overemphasis on PFAS as the primary risk. The JRC study presents the textile industry as the predominant source of PFAS emissions but does not differentiate between persistent fluorinated polymers (e.g. PTFE), which are highly stable, and mobile PFAS compounds that pose a greater potential risk. This lack of distinction may not adequately reflect the environmental and toxicological profiles within the PFAS group.
2191	9.2.7.1; 3937	Especially in the textile sector, there are ample substances of concern (as defined in Article 2(27) of the ESPR). Notably, these may harm farmers, workers and consumers and have negative effects on health in the long-term, as the Task 4 report also identifies in section 9.2.7.1. The second paragraph of Art 6(3) ESPR states that "the setting of performance requirements shall also, where appropriate, reduce significant risks to human health or the environment." Therefore, we recommend including the production stage in this section, as it currently refers only to “chemical substances used by the textile sector in the different manufacturing stages.” Given that pesticides and fertilisers, despite being agricultural inputs, perform as process chemicals, addressing their use in the production stage is needed. In the delegated act on textiles ecodesign requirements, substances of concern or materials containing hazardous substances should be assessed in the complete value chain. Additionally, the textiles ecodesign requirements must also restrict substances of concern that pose significant risks to human health and the environment that are not adequately covered by the REACH regulation. Substances prohibited under the Fairtrade textiles standard can give a good indication: https://www.fairtrade.net/content/dam/fairtrade/fairtrade-international/standards/textile-standards/TextileStandard_EN.pdf

ID	Section & line	Comment
2192	9.2.7.1; 3942-3944	Referring to this knowledge gap is not helpful and tends to indicate delaying tactics very often used by the industry. We need to support the precautionary principle as most textiles are directly in contact with skin or air we breathe. As far as we know, the following chemicals are being used during wet treatments in the manufacturing process: formaldehyde, nonylphenols, ammonium dichromate, chromium trioxide, carbon disulfide, potassium dichromate, sulfuric acid, formamide, doxins, benzene, acetic acid and caustic soda. Titanium dioxide is widely used for UV protection. Brominated flame retardants, fluorinated water and stain repellents and antibacterial agents all have health impacts associated with them. Disperse dyes are especially problematic (disperse blue 106, disperse blue 124, disperse yellow 3 etc) and not often studied and often contain cadmium, chromium (also used as oxidation or fixing agent) and other hazardous substances for human health or the environment. Azo dyes, anilines and anthraquinone are also very problematic. Same for finishing resins widely used in the industry to improve the appearance, texture or performance of apparel. Many of them contain formaldehyde, for which the EU Ecolabel defined a limit value of 30 mg per kg. Nanoparticles are also used for finishing treatments and can also have considerable health impacts (silver ones for example). Finally, biocides like silver, triclosan and triclocarban which are antimicrobial agents added to textiles prevent bacterial growth and odor in casual and sportswear can not only have health impacts but also, once released gradually in low doses throughout the use phase of the garments, contribute to the development of antibiotic resistance.
2193	9.2.7.1; 3942-44	Referring to this knowledge gap is not helpful and tends to indicate delaying tactics very often used by the industry. We need to support the precautionary principle as most textiles are directly in contact with skin or air we breathe. As far as we know, the following chemicals are being used during wet treatments in the manufacturing process: formaldehyde, nonylphenols, ammonium dichromate, chromium trioxide, carbon disulfide, potassium dichromate, sulfuric acid, formamide, doxins, benzene, acetic acid and caustic soda. Titanium dioxide is widely used for UV protection. Brominated flame retardants, fluorinated water and stain repellents and antibacterial agents all have health impacts associated with them. Disperse dyes are especially problematic (disperse blue 106, disperse blue 124, disperse yellow 3 etc) and not often studied and often contain cadmium, chromium (also used as oxidation or fixing agent) and other hazardous substances for human health or the environment. Azo dyes, anilines and anthraquinone are also very problematic. Same for finishing resins widely used in the industry to improve the appearance, texture or performance of apparel. Many of them contain formaldehyde, for which the EU Ecolabel defined a limit value of 30 mg per kg. Nanoparticles are also used for finishing treatments and can also have considerable health impacts (silver ones for example). Finally, biocides like silver, triclosan and triclocarban which are antimicrobial agents added to textiles prevent bacterial growth and odor in casual and sportswear can not only have health impacts but also, once released gradually in low doses throughout the use phase of the garments, contribute to the development of antibiotic resistance.
2194	9.2.7.1; 3942-44	Referring to this knowledge gap is not helpful and tends to indicate delaying tactics very often used by the industry. We need to support the precautionary principle as most textiles are directly in contact with skin or air we breathe.

ID	Section & line	Comment
		As far as we know, the following chemicals are being used during wet treatments in the manufacturing process: formaldehyde, nonylphenols, ammonium dichromate, chromium trioxide, carbon disulfide, potassium dichromate, sulfuric acid, formamide, doxins, benzene, acetic acid and caustic soda. Titanium dioxide is widely used for UV protection. Brominated flame retardants, fluorinated water and stain repellents and antibacterial agents all have health impacts associated with them. Disperse dyes are especially problematic (disperse blue 106, disperse blue 124, disperse yellow 3 etc) and not often studied and often contain cadmium, chromium (also used as oxidation or fixing agent) and other hazardous substances for human health or the environment. Azo dyes, anilines and anthraquinone are also very problematic. Same for finishing resins widely used in the industry to improve the appearance, texture or performance of apparel. Many of them contain formaldehyde, for which the EU Ecolabel defined a limit value of 30 mg per kg. Nanoparticles are also used for finishing treatments and can also have considerable health impacts (silver ones for example). Finally, biocides like silver, triclosan and triclocarban which are antimicrobial agents added to textiles prevent bacterial growth and odor in casual and sportswear can not only have health impacts but also, once released gradually in low doses throughout the use phase of the garments, contribute to the development of antibiotic resistance.
2200	9.2.7; 3956	We find that the figures referenced in this section are outdated and do not correctly depict consumers' perception of chemical risks in more recent years. According a 2020 Eurobarometer survey, four in five consumers are concerned about the presence of hazardous chemicals in everyday products. Clothes and textiles are products with which consumers come in very close and prolonged contact over their life, making the exposure high. Consumer organizations have largely focused their work on testing the presence of hazardous substances in consumer products, including textiles: - Sveriges Konsumenter found in jackets fluorinated substances (PFAS) known as "forever chemicals" that accumulate in the environment and human body. - Forbrugerrådet Tænk also found these harmful chemicals in children snowsuits, in addition to Bisphenol A (BPA) - a known endocrine disruptor. - Verein für Konsumenteninformation tested the pressence of bisphenols in underwear. - Further examples of tets perfromed by consumer organizations can be found in this ANEC-BEUC paper - https://www.beuc.eu/sites/default/files/publications/beuc-x-2016-020_protecting_consumers_from_hazardous_chemicals_in_textiles.pdf Hazardous chemicals in home textiles also cause risks to consumers through direct contact or indoor air pollution.
2201	9.2.7.1; 3964-3969	The wording of this chapter leads to the presumption that the source of substances of concern is directly linked to the chemical products used by supply chain located outside the EU. We deem that this presumption is not totally correct. Please note that the textile industry is a downstream user of chemical products supplied by the chemical industry. We understand that the chemical industry is the responsible to ensure a chemical product is safe and should increase the transparency on chemical substances formulated in the chemical products they sell. It is well known by the society the lack of transparency on the chemical ingredients (only substances classified with hazard in CLP and in concentration above specific thresholds, the possibility to not name the substance to allow the chemical industry to protect their IP, among others) all these limitations hampering the traceability of SoCs using the Safety Data Sheets (SDS). These limitations have been explained and highlighted by many

ID	Section & line	Comment
		position papers (from brands and trade association); and even European Commission mentioned partially in the Chemical Strategy on Sustainability (chapters 2.1.2 achieving safe products and non-toxic materials; and, 2.4 A comprehensive knowledge base on chemicals). These limitations on chemical transparency are affecting at the same level both the supply chain inside EU and outside EU. Additionally, the supply chain outside the EU has additional limitations on chemical transparency due to the lack of harmonized hazard criteria (those hazards contemplated in EU CLP but not currently implemented in UNs GHS), the international regulations on chemical product impose different requirements in chemical ingredients disclosure, among others. These additional limitations affect only and exclusively the supply chain outside the EU. In conclusion, we confirm that all the supply chain (EU and non-EU) is affected by limitations to allow the traceability of SoC, but non-EU have additional limitations that affects in higher degree than EU. Please revise the wording to reinforce these issues in order to avoid any misunderstanding in the reader, because the current wording suggest there is no problem on traceability of SoC in supply chain located in EU.
2202	9.2.7.1; 3964-3969	Business models. The wording of these chapter leads to the presumption that the source of substances of concern is directly linked to the chemical products used by supply chain located outside the EU. We deem that this presumption is not totally correct. Please note that the textile industry is a downstream user of chemical products supplied by the chemical industry. We understand that the chemical industry is the responsible to ensure a chemical product is safe and should increase the transparency on chemical substances formulated in the chemical products they sell. The lack of transparency on the chemical ingredients is well known e.g. only substances classified with hazard in CLP and in concentration above specific thresholds, the possibility to not name the substance to allow the chemical industry to protect their IP, among others: all these limitationsare hampering the traceability of SoC using the Safety Data Sheets (SDS). These limitations have been explained and highlighted by many position papers (from brands and trade association); and even European Commission mentioned partially in the Chemical Strategy on Sustainability (chapters 2.1.2 achieving safe products and non-toxic materials; and, 2.4 A comprehensive knowledge base on chemicals). These limitations on chemical transparency are affecting at the same level to both the supply chain inside EU and outside EU. Additionally, supply chain outside EU have additional limitations on chemical transparency due the lack of harmonized hazard criteria (those hazards contemplated in EU CLP but not currently implemented in UNs GHS), the international regulations on chemical product impose different requirements in chemical ingredients disclosure, among others. These additional limitations affect only and exclusively the supply chain outside the EU. These limitations have been explained and highlighted by many position papers (from brands and trade association); and even European Commission mentioned partially in the Chemical Strategy on Sustainability (chapters 2.1.2 achieving safe products and non-toxic materials); and, 2.4 A comprehensive knowledge base on chemicals). In conclusion, we confirm that the full textile supply chain (EU and non EU) is affected by limitations to allow the traceability of SoC, but non EU actors have additional limitations that affects in higher degree than EU. Please revise the wording to reinforce these issues in order to avoid any misunderstanding in the reader, because the current wording suggest there is no problem on traceability of SoC in supply chain located in EU.
2207	Chapter 9; 3974 & 4028	The remark on substances entering the EU market needs some elaboration. Add: online buying from paltforms based outside the EU lead to growing risks of products entering the market not complient to for instance REACH. Lack of enforcement capacity with customs is an issue. Line 4028: Also here lack of enforcement should be mentioned.
2208	9.2.7.1; 3975	Study from 2011 is outdated, today there are many companies worldwide that work in an exemplary, ultra-modern and environmentally friendly manner.
2209	9.2.7.1.; 3975 ff	Study from 2011 is outdated, today there are many companies worldwide that work in an exemplary, ultra-modern and environmentally friendly manner

ID	Section & line	Comment
2210	9.2.7; 3975 ff	Study from 2011 is outdated, today there are many companies worldwide that work in an exemplary, ultra-modern and environmentally friendly manner.
2212	9.2.7.1; 3984	The actual relevance of this figure is questionable. 256 impacts over 5 years, although each of them individually had for sure an impact, is not considered meaningful enough to show the need to extent the amount of substances to be considered in this process. For the year 2024 only textile apparel industry had 43 alerts regards chemicals whereas cosmetics and toys had 1472 and 251, respectively.
2213	9.2.7.1; 3984	Figure 6: "The graph indicates that chemical risks are the third most frequent risk reported": The chemical substance in the analysis referenced, are the ones that are already regulated and restricted for example in Annex XVII to REACH. This suggest that the focus should be on this limited group of substances that are still creating issues, and not extend the scope to what is currently defined as Substance of Concern.
2214	9.2.7.1.; 3984	The actual relevance of this figure is questionable. 256 impacts over 5 years, although each of them individuslly had for sure an impact, is not considered meaningful enough to show the need to extent the amount of substances to be considered in this process. For the year 2024 only textile apparel industry had 43 alerst regards chemicals wheras cosmetics and toys had 1472 and 251, respectively.
2216	9.2.7; 3987- 4033	It is essential to ensure legislative coherence between the REACH and CLP Regulations and the introduction of obligations under the ESPR legal framework.
2218	9.2.7.1; 4005	We would like to note that there is a long stalled potential restriction on skin sensitisers on textiles. The study does not mention this and we believe it should be addressed with an overview of its status and reasoning why no action has been taken.
2219	9.2.7.1; 4005	We would like to note that there is a long-stalled potential restriction on skin sensitisers on textiles. The study does not mention this and we believe it should be addressed with an overview of its status and reasoning why no action has been taken.
2220	9.2.7.1; 4005	We would like to note that there is a long stalled potential restriction on skin sensitisers on textiles. The study does not mention this and we believe it should be addressed with an overview of its status and reasoning why no action has been taken.
2221	9.2.7.1; 4009	We would like to note that the current restriction of CMRs in textiles and footwear is limited to 33 substances; the Commission's "Restrictions Roadmap Update Rolling List Final" document from 1 July 2024 notes that "ECHA's Assessments of Regulatory Needs regularly suggest adding substances to Appendix 12 through Article 68(2), and reviewing the current concentration limits (e.g. on quinoline). This would expand the current list of substances or their limits that are restricted in textiles through entry 72 of REACH Annex XVII." It is clear that the current restriction is not sufficiently protective and work remains to be done. This study should specify this information.
2222	9.2.7.1; 4009	We would like to note that the current restriction of CMRs in textiles and footwear is limited to 33 substances; the Commission's "Restrictions Roadmap Update Rolling List Final" document from 1 July 2024 notes that "ECHA's Assessments of Regulatory Needs regularly suggest adding substances to Appendix 12 through Article 68(2), and reviewing the current concentration limits (e.g. on quinoline). This would expand the current list of substances or their limits that are restricted in textiles through entry 72 of REACH Annex XVII." It is clear that the current restriction is not sufficiently protective and work remains to be done. This study should specify this information.
2223	9.2.7.1; 4009	We would like to note that the current restriction of CMRs in textiles and footwear is limited to 33 substances; the Commission's "Restrictions Roadmap Update Rolling List Final" document from 1 July 2024 notes that "ECHA's Assessments of Regulatory Needs regularly suggest adding substances to Appendix 12 through Article 68(2), and reviewing the current concentration limits (e.g. on quinoline). This would expand the current list of substances or their limits that are restricted in textiles through entry 72 of REACH Annex XVII." It is clear that the current restriction is not sufficiently protective and work remains to be done. This study should specify this information.
2224	9.2.7.1; 4027-4033	To ensure that different regulations inside and outside the EU regarding the presence of chemical substances align with the ESPR regulation in terms of protecting European consumers and with the procedures and regulations for recycling, there must be effective enforcement on imported products.
2226	9.2.7.1; 4028-4033	Considering that huge amounts of products, from chemical mixtures to garments, are imported in Europe from countries which currently do not have well established chemicals management systems: • a well-structured and functioning control and enforcement system must be in place, to check compliance to EU rules both for European and imported products, to grant a level playing field between EU and non-EU competitors; • implementation of GHS in Regions outside the EU should be fostered.

ID	Section & line	Comment
2227	9.2.7.2; Figure 27, page 143	Concerning the sentence “do not remain on textile”. Can we be sure that no carry-over residues will remain on the textile? If not, we suggest replacing the sentence with “are not intended to remain on textile”.
2228	9.2.7; 4034- 4111	It is a very significant challenge that the proposal is very unspecific and potentially regulates thousands of substances, and it is very unclear how this can be applied and enforced in practice. A comprehensive list of all the substances of concern that textile products contain would mean all CLP classifies chemical substances. As a minimum, the CLP classifications must be prioritised, for example by focusing on CMR-classifications first and then apply a stepwise approach for including additional classification to make the requirements specific and relevant. We strongly recommend including AFIRM and/or other relevant industry organizations in this process.
2229	9.2.7.2 Methodology to assess Substances of concern; 4,034 ff.	Section 9.2.7.2, line 4,035-4,038: We agree that the number and identity of substances used in production depends on the fibre composition and the specific product category. Therefore, it is crucial to follow a clear methodology - as described earlier in another comment 2 - for the categorisation of products in order to assess SoC. Section 9.2.7.2, Figure 27: Please consider that SoC, such as SVHCs are also likely to be present in (non-textile) parts and accessories. Figure 27 only shows the processing of the main fabric material. However, the choice of accessories and non-textile articles is also clearly linked to the design phase and the technical specification of the product. This should be considered in figure 27 as well. Section 9.2.7.2, line 4,045-4,070 ff.: We support the separation of textile chemicals into effect chemicals (functional chemicals) and process auxiliaries. We suggest focusing on the effect chemicals in a first step within a stepwise approach to address traceability because they are intended to remain in the product to fulfil a function there. Thus, they are determined by technical specifications in the (technical) design phase. This proposal was supported by stakeholders in the research project of the German Environment Agency. To achieve this, we suggest that retailers and other operators include a description of the relevant effect (functional) chemicals (such as the often-mentioned water repellents) in the technical product specification and pass this information on to the production/wet processing via the chemical inventories. According to chapter 4.1.6.2 of the Best Available Techniques (BAT) Reference Document for the Textiles Industry a chemical inventory is necessary for a responsible chemical management. The implementation of a chemical management system according to BAT requires the exchange of information between the chemical supplier and the wet processor in order to manage and inventory all chemical products. It is known that textile operators who already interact and exchange information with both chemical suppliers and wet processors have a better understanding of the chemical products and their constituents (active substances), the application conditions (like water and energy consumption) and the performance of the final article (e.g. washing fastness or water repellence) as well as the management of restricted substances on the final textile. Improving the knowledge of effect chemicals can be seen as a first and crucial step in improving the knowledge of chemical use from production to end of life. However, there is a risk that for some operators it will require a high level of investment and effort to acquire the technical product competence. It is therefore important to limit the information obligations to what is absolutely necessary and to provide for sufficiently long transition periods and simplifications for SMEs. In a first step voluntary industry standards, which include requirements on chemical management could help to increase the knowledge in the sector. Section 9.2.7.2, line 4,076 ff.: We agree that supply chain information and the implementation of different supply chain transparency measures are necessary. We suggest to integrate the information requirements on SVHC (identity, concentration and occurrence in articles and their parts, also accessories) in the public data of the Digital Product Passport (DPP) in order to relief industry from the need to respond to individual consumer requests. We understand that the development of the DPP system is aimed at achieving interoperability with existing databases; here this would need an interoperability of the DPP and the SCIP database to avoid the need to enter data into two or more systems and limit the bureaucratic burden on

ID	Section & line	Comment
		companies (SCIP is the database for information on SoC in articles as such or in complex objects (products) established under the Waste Framework Directive (WFD)). Section 9.2.7.2, line 4,099 ff.: We disagree with the general idea that testing of SoCs becomes a requirement in ESPR for textile products. Limit values and testing procedures of SVHCs, POPs and Annex XVII restricted substances in articles are described in REACH and the Compendium of analytical methods. CLP is only effective in the EU and only applies to chemicals, but not to articles. Imported articles /products for which CLP classified substances might have been used as auxiliary (process) chemicals during production, could not be controlled by market surveillance because these substances are not detectable in chemical analysis in the im-ported garment anymore. Last, but not least, we see a crucial risk that producers, regulators and market surveillance would be overwhelmed by complex requirements towards individual substances and see the risk of competitive disadvantages compared to suppliers from third countries who could easily circumvent such testing requirements.
2231	9.2.7.3 Description of product technology,; 4,035 ff.	Section 9.2.7.3, line 4,113 ff.: We agree that the setting of information requirements is the only feasible approach regarding the presence of SoC. However, the results of the research project of the German Environment Agency rather recommend a stepwise introduction cov-ering as a first step the information requirement of the effect (functional) chemicals that are used to influence the properties of the final product. Furthermore, we recommend introduc-ing a communication requirement for SVHCs according to REACH in the DPP and make this information publicly available to consumers.
2232	9.2.7.2; 4035-4038	Agree that there is no simple way to determine the number and nature of chemicals being used in the feedstock, and there should be no specific mandates that require recyclers to test for SoCs before processing. There will be legacy chemicals from textile waste, however, chemical recycling processes are able to isolate these chemicals and they do not end up in the recycled output. The burden of chemical identification of textiles feedstock must fall more on brands and manufacturers rather than recyclers. It is not realistic for recyclers to test for over 100s of hazardous chemicals, this is especially a challenge with post-consumer textiles. There is a need for practice, value-chain relevant tracking and reporting requirements for SoCs to avoid unnecessary administrative burdens.
2233	9.2.7.2 Presence of substances of concern; 4052	XXXX welcomes the opportunity to provide comments on the Preparatory study on textiles for product policy instruments, in particular with regards to Brominated Flame Retardants (BFRs). It is a well-known fact that highly flammable synthetic materials are extremely present in daily lives, such as textile fabrics, plastics used to manufacture electrical and electronic appliances, thermal insulation, upholstered furniture in homes and cars. As highlighted in the draft study on textiles, flame retardants should be considered functional chemicals as they are “intended to remain in the final article and are expected to be present at certain concentrations in order to achieve the desirable function”. Flame retardants significantly enhance fire safety and fire prevention by providing flame retardancy to a wide range of materials, including textiles. According to the recent ECHA investigation report on ABFRs, these flame retardants are in many cases the only means to meet flammability & performance requirements and offer a strong level of protection because of their high efficiency, unique properties and compatibility (see footnotes 1 & 2 below) In the EU, only substances that have demonstrated safe use are allowed under chemical legislation. Modern generation of BFRs are thoroughly researched to ensure they are safe for human health and the environment. They meet strict legal requirements and certification schemes (flammability and product standards) and are already regulated at the EU level ensuring the highest safety standards on both production and end-of-life management. Being registered under REACH, they have therefore undergone this assessment for safe use. There is a need to foster simplification by avoiding duplication and overlap within the existing chemical framework, including regulatory tools intended to address both the production of these substances and their end of life. We welcome more harmonisation across EU legislations and ask that any potential restriction of substances is conducted under REACH. XXXX maintains that BFRs are essential to enhance fire safety and fire prevention to a wide range of materials, including textiles in a wide range of applications. Our society cannot compromise on fire safety standards. We call the European Commission and consultants to refrain from introducing any restriction or reduction of the presence of Brominated Flame Retardants in textiles, given the above, and as this would increase fire risks without bringing environmental and/or health benefits. For more information, please contact XXXXX, Head of Public Affairs & advocacy at XXXX XXXX@XXXX.org 1 E.g. In certain types of tents the use of DBDPE (a commonly used ABFR) is claimed to be necessary, not only to achieve the required flame retardancy but also to ensure that the product can meet several additional properties, including mechanical resistance

ID	Section & line	Comment
		2 several stakeholders reported that substitution (of ABFRs) can be particularly challenging in textile applications which are meant for indoor use but subject to high moisture and/or frequent washing (as in the case of mattress covers for hospitals, coated with a thin polyurethane coating)
2235	Chapter 9; 4072	Retailers and other operators placing textile apparel on the market have implemented chemical management strategies to enable compliance and to meet their due-diligence obligations as regards chemicals in their products.Do they? On what base are you able to pose this remark?
2236	9.2.7.1; 4074-4075	Currently, it is more feasible to stick with existing standards and certificates which already consider the above mentioned groups defined under SoC (REACH, CLP,POP). A combination of both approaches makes sense that random sampling can support compliance with existing regulations. Any further analytical activities are again additional burdens to the industry and would require proper analytical standards and test methods for all concerned substances. Proper in this case should mean, that a test method (if necessary with pass fail criteria) is agreed upon by experts in an acknowledged standardization environment (CEN/ISO).
2237	9.2.7.2.; 4074 ff.	Currently, it more feasible to stick with existing standards and certificates which already consider the above mentioned groups defined under SoC (REACH, CLP,POP). A combination of both approaches makes in so far sense that random sampling can support compliance with existing regululation. Any further analytical activities are again additonal burdens to the industry and would require proper analytical standards and test methods for all concerned substances. Proper in this case should mean, that a test method (if necessary with pass fail criteria) is agreed upon by experts in an acknowledged standardisation environemnt (CEN/ISO).
2239	9.2.7.2; 4076-4087	Misunderstanding of RSLs and MRSLs: RSLs and MRSLs are mentioned as supply chain transparency measures. There is a misunderstanding or misinterpretation on how RSLs work in the industry. They are not tools for chemical contents and hazards disclosure but rather negative lists, detailing substances that are not to be used during manufacturing and/or present in the final products. The number of substances listed in for example AFIRM RSL, are far more limited than what the ones expressed under the definition of SoC to be even considered to be applicable. It is also critical to highlight that working with RSL (defining what should not be in an article) is not going enable companies to get the information on what substances are in the final article, i.e. it is important to note, that comparing the wide definition of SoC as it stands in the ESPR, neither AFIRM nor ZDHC will as they stand today offer the industry sufficient transparency and traceability to be able to comply with future information requirements on substances of concern.
2240	9.2.7.2; 4076-4087	Misunderstanding of RSLs and MRSLs: RSLs and MRSLs are mentioned as supply chain transparency measures. There is a misunderstanding on how RSLs work in the industry. This is not a disclosure of chemical transparency; it is a commitment to not use certain substances. The number of substances listed in for example AFIRM RSL, are far more limited than what the ones expressed under the definition of SoC to be even considered to be applicable. It is also critical to highlight that working with RSL (defining what should not be in an article) is not going enable brands to get the information on what substances are in the final article. I.e. it is important to note, that comparing the wide definition of SoC as it stands in the ESPR, neither AFIRM nor ZDHC will as they stand today offer the industry sufficient transparency and traceability to be able to comply with future information requirements on substances of concern.
2241	9.2.7.2 Methodology to assess Substances of Concern; 4076-4082	It is correct that retailers and other operators in the supply chain rely on declarations by suppliers, binding contractual terms and third-party certification, to provide information about substances in products which should not be present. These declarations can be based on own Restricted Substance Lists (RSLs), that could refer to international and European sectorial initiatives, but it is also quite common a company has its own list. RSLs can list either specific substances/substance groups or substances that fulfil requirements of a specific hazard classification, and not only substances that are regulated. On one hand suppliers complain such lists are not harmonised, as it requires a lot of work when different costumers set different requirements. On the other hand, retailers and other operators find it challenging when suppliers confirm their reporting is compliant to legislations, as several legislations can be irrelevant, and which ones are relevant may be challenging to judge.
2243	9.2.7.2 Methodology to assess Substances of Concern; 4079	The term “positive lists” is not described consistently to how this term is commonly used. Positive lists are defined as lists of substances that are accepted or better choices (see for example TCO certified for IT-equipment). “Negative lists” list includes substances that are not accepted.
2244	9.2.7.1; 4080-4087	In addition, there are voluntary protocols developed by private initiatives. The proliferation of standards and protocols clogs the entire supply chain, making it inefficient, overly complex and unsustainable for the industry, especially for small and medium-sized enterprises, to comply with all standards. A unified harmonization of standards and protocols is necessary. A single European protocol is highly desirable to replace private initiatives.

ID	Section & line	Comment
2247	9.2.7.2; 4088-4098	It is crucial to seek for broader disclosure approaches for chemicals along textile supply chains, and thus to make available information on chemicals used to produce the garment (during the different production stages) in the Digital Product Passport (DPP). This is key to manage chemicals adequately, and to ensure the recycling process is then capable of removing them to the regulated level. Duhoux et al. (2021) "Study on the technical, regulatory, economic and environmental effectiveness of textile fibres recycling" found that the most important information needed for textile recyclers are 1) more detailed data on fibre content, and 2) data on chemical content. For recycling it is especially important that the DPP includes information on the presence of any chemical content, such as treatments, dyes, and finishing chemicals used along the value chain, and that may impact the recyclability of the garment. The Ellen MacArthur Foundation's report (2017) "A New Textiles Economy: Redesigning Fashion's Future," also emphasized the importance of transparency in chemical content to enhance textile recycling processes. The report emphasizes that disclosing chemical information is crucial for improving circularity, by allowing recyclers to identify and manage substances that could hinder recycling or degrade fiber quality. This will then facilitate the production of new textiles from recycled materials.
2248	9.2.7.2; 4097	ECHT project is mentioned as a relevant project to develop traceability information platforms on there of SoC. This is still at the very initial stages and while it shows that indeed multiple initiatives are ongoing to tackle these challenges, that does not mean that they are mature enough to be actual relevant for businesses by the time ESPR requirements will go into force.
2249	9.2.7.2; 4097	ECHT project is mentioned as a relevant project to develop traceability information platforms on there of SOC. This is still at the very initial stages and while it shows that indeed multiple initiatives are ongoing to tackle these challenges, that does not mean that they are mature enough to be actual relevant for businesses by the time ESPR requirements will go into force.
2252	9.2.7.2; 4101-4103	This point is clear and well written. For proper testing, a specific and more targeted analysis is needed, based on a risk-based approach. We believe that it is essential to follow a risk-based approach to evaluate the presence of Substances of Concern (SoCs) in textile products, especially for reuse and recycling. It is essential that the limitations placed on SoCs are implemented starting from a risk assessment that takes into account the necessary adaptation times. In this way, the risk can be managed, and the use of recycled material allowed safely. A regulation that does not consider this difference, if strictly applied, could jeopardize sectors like mechanical textile recycling, especially for post-consumer materials. While safeguarding health and the environment remains paramount, failing to differentiate SoCs limits between virgin and recycled material—without considering the overall environmental impacts—could, in certain cases, hinder material recovery. This may leave energy recovery as the only viable option, provided the calorific value allows it. This could in fact leave landfill or energy recovery (if the calorific value of the waste allows it) as the only viable options. However, both of these solutions would undermine the objectives of sustainability and circularity and would be contrary to the waste management hierarchy that Europe has given itself and are secondary to material recovery. Indeed, Directive 2008/98/EC states that recycling and material recovery are to be preferred to energy recovery and landfilling, the latter of which should be used as little as possible because of its very high environmental impact. A study 'Chemical risk assessment in recycled wool', carried out by Test & Innovation Lab (TIL), which we will share separately, shows that some of the SoC substances, mainly from post-consumer materials, tend to have a decrease in contamination (in terms of concentration) over time. This supports the need to consider temporary moratoriums for these materials, otherwise their circularity will be undermined.
2255	9.2.7.2; 4110-4111	Mandating an information requirement for all substances of concern according to Article 2 Number 27 of the ESPR in textiles is practically unfeasible and unreasonable. The textile industry's complex and globally interconnected supply chain significantly hinders full transparency and traceability of chemical constituents. This is further complicated by the need to protect confidential business information, particularly concerning auxiliary substances and colourants, to prevent the disclosure of trade secrets - especially in the chemical industry, where formulations are often proprietary and cannot or must not be disclosed. Moreover, manufacturers of innovative materials and auxiliaries - essential for achieving sustainability goals - might hesitate or refuse to provide such information. Similarly, the textile industry itself could face constraints on innovation, as companies may refrain from developing new functional textiles or sustainable alternatives if these are automatically classified as problematic without a nuanced assessment of actual risks. This could contradict the objectives of the ESPR, which aims to enhance the environmental sustainability of products. For these reasons, the following recommendations should be considered: (1) Limiting the information requirements to established categories of concern: (i) the obligation should be restricted to well-defined groups of substances, specifically: (a) substances of very high concern (SVHC) and substances regulated under Annex XVII (REACH), (b) persistent organic pollutants (POP). (ii) Any expansion to additional substances should be based on a systematic, science-driven evaluation by

ID	Section & line	Comment
		ECHA to ensure that only substances posing a demonstrable risk are included. A blanket disregards the fact that many substances used in textiles do not present a meaningful risk. For instance, numerous chemicals utilized during manufacturing do not remain in the final textile product or exist at levels that are not of concern. Reactive dyes, for example, chemically bond to fibres, eliminating free-form presence in the textile and significantly reducing or eliminating any associated risks. If relevant risks are identified, an inclusion in Annex XVII is warranted (in cases of health or environmental hazards). Information requirements should be reserved only for cases where SoCs in textiles pose relevant risks which are not related to health or environmental hazards. (2) Defining practical concentration thresholds for implementation: (i) Clear concentration thresholds are essential for feasibility. The existing 0.1% threshold for SVHCs under REACH has proven effective and should not be tightened. Furthermore, under current regulations, non-gaseous substances must only be listed in safety data sheets if present at 1% or higher (or at 0.1% for CMR, PBT, vPvB and sensitizing substances - most of which are already classified as SVHC under REACH). Given these established regulatory frameworks, an SoC information threshold should not be set below 1%. (ii) Additionally, it is important to recognize that global discrepancies in safety data sheet requirements pose further challenges for data collection along the supply chain. (3) To ensure regulatory clarity and feasibility, a well-defined and science-based list of substances should be established and made publicly available to determine which substances are subject to information obligations. A broad, undefined scope or a dynamic reference to the frequently changing CLP classifications could lead to inconsistent implementation, unnecessary administrative burdens, and potential disruptions in supply chains.
2256	9.2.7.2; 4110-4111	While it seems self-evident that the analytical testing approach would be costly for SMEs, it is only because of issues within the supply chain that the accessibility of data causes difficulty for SMEs, and we think that the sentence in these lines should better evaluated. Clearly a DPP with comprehensive information about the use and presence of SoC in products would not pose limitations to SMEs; it is only the current environment which does not enable information sharing that poses a problem, not the actual approach of “supply chain information”.
2257	9.2.7.2; 4110- 4111	While it seems self-evident that the analytical testing approach would be costly for SMEs, it is only because of issues within the supply chain that the accessibility of data causes difficulty for SMEs, and we think that the sentence in these lines should better evaluated. Clearly a DPP with comprehensive information about the use and presence of SoC in products would not pose limitations to SMEs; it is only the current environment which does not enable information sharing that poses a problem, not the actual approach of “supply chain information”.
2258	9.2.7.2.; 4110-4111	Mandating an information requirement for all substances of concern according to Article 2 Number 27 of the ESPR in textiles is practically unfeasible and unreasonable. The textile industry's complex and globally interconnected supply chain significantly hinders full transparency and traceability of chemical constituents. This is further complicated by the need to protect confidential business information, particularly concerning auxiliary substances and colourants, to prevent the disclosure of trade secrets - especially in the chemical industry, where formulations are often proprietary and cannot or must not be disclosed. Moreover, manufacturers of innovative materials and auxiliaries - essential for achieving sustainability goals - might hesitate or refuse to provide such information. Similarly, the textile industry itself could face constraints on innovation, as companies may refrain from developing new functional textiles or sustainable alternatives if these are automatically classified as problematic without a nuanced assessment of actual risks. This could contradict the objectives of the ESPR, which aims to enhance the environmental sustainability of products. For these reasons, the following recommendations should be considered: (1) Limiting the information requirements to established categories of concern: (i) the obligation should be restricted to well-defined groups of substances, specifically: (a) substances of very high concern (SVHC) and substances regulated under Annex XVII (REACH), (b) persistent organic pollutants (POP). (ii) Any expansion to additional substances should be based on a systematic, science-driven evaluation by ECHA to ensure that only substances posing a demonstrable risk are included. A blanket disregards the fact that many substances used in textiles do not present a meaningful risk. For instance, numerous chemicals utilized during manufacturing do not remain in the final textile product or exist at levels that are not of concern. Reactive dyes, for example, chemically bond to fibres, eliminating free-form presence in the textile and significantly reducing or eliminating any associated risks. If relevant risks are identified, an inclusion in Annex XVII is warranted (in cases of health or environmental hazards). Information requirements should be reserved only for cases where SoCs in textiles pose relevant risks which are not related to health or environmental hazards. (2) Defining practical concentration thresholds for implementation: (i) Clear concentration thresholds are essential for feasibility. The existing 0.1% threshold for SVHCs under REACH has proven effective and should not be tightened. Furthermore, under current regulations, non-gaseous substances must only be listed in safety data sheets if present at 1% or higher (or at 0.1% for CMR, PBT, vPvB and sensitizing substances - most of which are already classified as SVHC under REACH). Given these established regulatory frameworks, an SoC information threshold should not be set below 1%. (ii) Additionally, it is important to recognize that global discrepancies in safety data sheet requirements pose further challenges for data collection along

ID	Section & line	Comment
		the supply chain. (3) To ensure regulatory clarity and feasibility, a well-defined and science-based list of substances should be established and made publicly available to determine which substances are subject to information obligations. A broad, undefined scope or a dynamic reference to the frequently changing CLP classifications could lead to inconsistent implementation, unnecessary administrative burdens, and potential disruptions in supply chains.
2259	9.2.7.2; 4110- 4111	While it seems self-evident that the analytical testing approach would be costly for SMEs, it is only because of issues within the supply chain that the accessibility of data causes difficulty for SMEs, and we think that the sentence in these lines should better evaluated. Clearly a DPP with comprehensive information about the use and presence of SoC in products would not pose limitations to SMEs; it is only the current environment which does not enable information sharing that poses a problem, not the actual approach of "supply chain information".
2260	9.2.7.2; 4110-4111	Mandating an information requirement for all substances of concern according to Article 2 Number 27 of the ESPR in textiles is practically unfeasible and unreasonable. The textile industry's complex and globally interconnected supply chain significantly hinders full transparency and traceability of chemical constituents. This is further complicated by the need to protect confidential business information, particularly concerning auxiliary substances and colourants, to prevent the disclosure of trade secrets - especially in the chemical industry, where formulations are often proprietary and cannot or must not be disclosed. Moreover, manufacturers of innovative materials and auxiliaries - essential for achieving sustainability goals - might hesitate or refuse to provide such information. Similarly, the textile industry itself could face constraints on innovation, as companies may refrain from developing new functional textiles or sustainable alternatives if these are automatically classified as problematic without a nuanced assessment of actual risks. This could contradict the objectives of the ESPR, which aims to enhance the environmental sustainability of products. For these reasons, the following recommendations should be considered: (1) Limiting the information requirements to established categories of concern: (i) the obligation should be restricted to well-defined groups of substances, specifically: (a) substances of very high concern (SVHC) and substances regulated under Annex XVII (REACH), (b) persistent organic pollutants (POP). (ii) Any expansion to additional substances should be based on a systematic, science-driven evaluation by ECHA to ensure that only substances posing a demonstrable risk are included. A blanket disregards the fact that many substances used in textiles do not present a meaningful risk. For instance, numerous chemicals utilized during manufacturing do not remain in the final textile product or exist at levels that are not of concern. Reactive dyes, for example, chemically bond to fibres, eliminating free-form presence in the textile and significantly reducing or eliminating any associated risks. If relevant risks are identified, an inclusion in Annex XVII is warranted (in cases of health or environmental hazards). Information requirements should be reserved only for cases where SoCs in textiles pose relevant risks which are not related to health or environmental hazards. (2) Defining practical concentration thresholds for implementation: (i) Clear concentration thresholds are essential for feasibility. The existing 0.1% threshold for SVHCs under REACH has proven effective and should not be tightened. Furthermore, under current regulations, non-gaseous substances must only be listed in safety data sheets if present at 1% or higher (or at 0.1% for CMR, PBT, vPvB and sensitizing substances - most of which are already classified as SVHC under REACH). Given these established regulatory frameworks, an SoC information threshold should not be set below 1%. (ii) Additionally, it is important to recognize that global discrepancies in safety data sheet requirements pose further challenges for data collection along the supply chain. (3) To ensure regulatory clarity and feasibility, a well-defined and science-based list of substances should be established and made publicly available to determine which substances are subject to information obligations. A broad, undefined scope or a dynamic reference to the frequently changing CLP classifications could lead to inconsistent implementation, unnecessary administrative burdens, and potential disruptions in supply chains.
2262	9.2.7.3; 4112	As stated in the CHEMTrust report 'Chemical Cocktails' (2022): "Many of the chemical substances we are exposed to are individually known to cause harm to human health, wildlife and the environment. But in reality we are not exposed to individual chemicals one at a time, and there is now clear evidence from decades of research that these chemical exposures can add together, reinforcing their negative impacts." The fact that we know little about how combinations of chemicals affect our bodies and the environment - and as a result what safe limits for those combinations are - should be considered in the description of product technologies.
2263	9.2.7.3; 4112	As stated in the CHEMTrust report 'Chemical Cocktails' (2022): "Many of the chemical substances we are exposed to are individually known to cause harm to human health, wildlife and the environment. But in reality we are not exposed to individual chemicals one at a time, and there is now clear evidence from decades of research that these chemical exposures can add together, reinforcing their negative impacts." The fact that we know little about how combinations of chemicals affect our bodies and the environment - and as a result what safe limits for those combinations are - should be considered in the description of product technologies.

ID	Section & line	Comment
2264	9.2.7.3; 4114	Chemical use not being category specific seems to be blocking any consideration of these, is that valid?
2265	9.2.7.3; 4114	Chemical use not being category specific seems to be blocking any consideration of these, is that valid?
2266	9.2.7.3; 4123	We agree that setting information requirements on substances of concern for the textile apparel is key. We argue that the “justified exemptions” must be actually well-justified and not rely on the vague reasoning of “confidential business information”. There is currently no overarching legal definition for confidential business information. In the context of improving chemical traceability, we recommend aligning with the EU Regulation on Persistent Organic Pollutants, which is implementing the legal obligations under the Stockholm Convention. Article 11 paragraph 3 of the EU POPs regulation, on information exchange, states: "Without prejudice to Regulations (EC) No 1049/2001, and (EC) No 1367/2006 and Directive 2003/4/EC, information on the health and safety of humans and the environment shall not be regarded as confidential. The Commission, the Agency and the Member States that exchange information with a third country shall protect any confidential information in accordance with Union law." This language echoes that of the Stockholm Convention on POPs1, from Article 9, paragraph 5: "For the purposes of this Convention, information on health and safety of humans and the environment shall not be regarded as confidential. Parties that exchange other information pursuant to this Convention shall protect any confidential information as mutually agreed." If a substance of concern presents a risk to health or the environment, then the presence of that substance in a product must not be considered confidential business information, but fall under the mandatory disclosure requirements.
2267	9.2.7.3; 4123	We agree that setting information requirements on substances of concern for the textile apparel is key. We argue that the “justified exemptions” must be actually well-justified and not rely on the vague reasoning of “confidential business information”. There is currently no overarching legal definition for confidential business information. In the context of improving chemical traceability, we recommend aligning with the EU Regulation on Persistent Organic Pollutants, which is implementing the legal obligations under the Stockholm Convention. Article 11 paragraph 3 of the EU POPs regulation, on information exchange, states: "Without prejudice to Regulations (EC) No 1049/2001, and (EC) No 1367/2006 and Directive 2003/4/EC, information on the health and safety of humans and the environment shall not be regarded as confidential. The Commission, the Agency and the Member States that exchange information with a third country shall protect any confidential information in accordance with Union law." This language echoes that of the Stockholm Convention on POPs1, from Article 9, paragraph 5: "For the purposes of this Convention, information on health and safety of humans and the environment shall not be regarded as confidential. Parties that exchange other information pursuant to this Convention shall protect any confidential information as mutually agreed." If a substance of concern presents a risk to health or the environment, then the presence of that substance in a product must not be considered confidential business information, but fall under the mandatory disclosure requirements.
2268	9.2.7.3; 4123	We agree that setting information requirements on substances of concern for the textile apparel is key. We argue that the “justified exemptions” must be actually well-justified and not rely on the vague reasoning of “confidential business information”. There is currently no overarching legal definition for confidential business information. In the context of improving chemical traceability, we recommend aligning with the EU Regulation on Persistent Organic Pollutants, which is implementing the legal obligations under the Stockholm Convention. Article 11 paragraph 3 of the EU POPs regulation, on information exchange, states: "Without prejudice to Regulations (EC) No 1049/2001, and (EC) No 1367/2006 and Directive 2003/4/EC, information on the health and safety of humans and the environment shall not be regarded as confidential. The Commission, the Agency and the Member States that exchange information with a third country shall protect any confidential information in accordance with Union law." This language echoes that of the Stockholm Convention on POPs1, from Article 9, paragraph 5: "For the purposes of this Convention, information on health and safety of humans and the environment shall not be regarded as confidential. Parties that exchange other information pursuant to this Convention shall protect any confidential information as mutually agreed." If a substance of concern presents a risk to health or the environment, then the presence of that substance in a product must not be considered confidential business information, but fall under the mandatory disclosure requirements.

Annex 20. Comments on mutual influence & categorization

Table 43. Comments on mutual influence & categorization

ID	Section & line	Comment
2269	9.3; 4128-4129, 4134	The report acknowledges the correlation of durability with repairability. This is key from a technical perspective of product design and conception, since improving product durability would prevent the need for future repairability aspect. Based on the above, and on the arguments included in comments on lines 3210-3217, we think that reparability requirement should not be defined
2272	9.3; 4131	The claim that is problematic: "Waste generation is strictly connected to recyclability and recycled content;" This is not the case. It is 'strictly related to' volumes. Recycling might be better than other treatments of textile waste, but as the waste hierarchy clearly shows waste preventions is better, this is at the core. The knowledge we do have on restricting is not promising when it comes to environmental savings https://ivl.diva-portal.org/smash/record.jsf?pid=diva2%3A1833833&dswid=9564. What we don't know is how an emerging recycling industry will affect production and consumption, so this is lacking knowledge. We also encourage JRC to implement waste prevention and not only waste treatments in the discussion.
2273	Section 9.3 Mutual influence of product aspects and product categorization; Lines 4132-4133 on impact on physical durability, page 146	We supports long-lasting products. The physical durability criteria need to be consistent with PEF (Product Environmental Footprint). Recycled materials only contribute positively to sustainability if product quality can be maintained. A recycled product that lasts half as long may have higher negative environmental impact, so we advocate for the adoption of mandatory quality standards (e.g. ESPR) that will be implemented in conjunction with recycled content requirements.
2274	9.3; 4139-4150	We strongly oppose this approach. The proposed categories are not representative of the sector and are not acceptable until they include a division based on composition, followed by a subdivision based on fabric weight and construction. We reiterate that we fail to understand how this observation is acknowledged in the case of denim but not for other categories.
2276	9.3; 4146	There is a need to make the distinction between synthetic and natural fibres garments for the 11 suggested product categories since environmental impacts are expected to differ a lot, which has now been proved by an extensive number of studies.

Annex 21. Other comments received

Table 44. Other comments received

ID	Section & line	Comment
18	P2.5 Footwear articles deemed as potentially suitable for re-use shall undergo a functionality check followed by a cleaning and/or sanitation step, if needed. Only footwear articles passing a functionality check shall be redirected to re-use, the remaining fraction shall be redirected to recycling or other recovery operations.; Table page 3 No P2,5	In "P2.5 Footwear articles deemed as potentially suitable for re-use shall undergo a functionality check followed by a cleaning and/or sanitation step, if needed. Only footwear articles passing a functionality check shall be redirected to re-use, the remaining fraction shall be redirected to recycling or other recovery operations". Please at the end of the phrase add to "...other recovery operations, namely gasification, pyrolysis and other chemical technologies".
2378	3.2.7.4 Mechanical and chemical recycling of footwear waste; page 48	"Usually the different materials of footwear are strongly bonded with powerful glues or are sewn together. This makes separation and separate recycling resource-intensive and costly. The current recycling approaches are based on a first sorting step of separately collected footwear, optional heat treatment to facilitate the separation due to the degradation of the glue, shredding and cascaded separation of metals, textiles, rubber, foam/leader with standard market technologies such as magnets, eddy current, NIR or density separation (see Figure 17). As the adhesives can hardly be removed, this leads to adhesion of different materials but can also materials, which in turn prevents high-quality recycling (FFG, 2024)." Please modify in line 5 "leader" to "leather":

ID	Section & line	Comment
		"Usually the different materials of footwear are strongly bonded with powerful glues or are sewn together. This makes separation and separate recycling resource-intensive and costly. The current recycling approaches are based on a first sorting step of separately collected footwear, optional heat treatment to facilitate the separation due to the degradation of the glue, shredding and cascaded separation of metals, textiles, rubber, foam/leather with standard market technologies such as magnets, eddy current, NIR or density separation (see Figure 17). As the adhesives can hardly be removed, this leads to adhesion of different materials but can also materials, which in turn prevents high-quality recycling (FFG, 2024)."
2379	3.2.7.4 Mechanical and chemical recycling of footwear waste; page 48	"Depending on the composition of the input footwear, the following output materials are recycled (and used for): — metals (various new metal products); — textile pieces or fibres (e.g. cushioning, automotive industry and even recycled yarn); — foam (PU and EVA foam for yoga mats and floors); — rubber (e.g. construction of playgrounds, outdoor sports fields, running tracks); — leather (new leather products); — fluff (waste)." Please modify line 6" — leather (new leather products);" to: "— leather (new leather fiber based products);" Please, according to EU Footwear labelling legislation man-made leather fiber materials can not be classified/labelled as leather. Depending on the composition of the input footwear, the following output materials are recycled (and used for): — metals (various new metal products); — textile pieces or fibres (e.g. cushioning, automotive industry and even recycled yarn); — foam (PU and EVA foam for yoga mats and floors); — rubber (e.g. construction of playgrounds, outdoor sports fields, running tracks); — leather (new leather fiber based products); — fluff (waste).
2380	6.1.3.3 JRC draft proposals; Page 95	"Considering the complexity of certain textile wastes, the current state of textile recycling technologies and the

ID	Section & line	Comment
		rapid development of new innovative technologies for even complex fibre blends that are still unknown to date, the JRC proposes a largely technology neutral approach and to include all mechanical, thermo-mechanical and chemical recycling technologies and combinations thereof under scope89, with the exception of recycling technologies that recover so-called dual-use output materials which are not exclusively used for material recycling, but also for the production of energy or fuels, such as gasification and pyrolysis processes (see Figure 24)." Please consider in line 4 modifiying the sentence: "with the exception of recycling technologies that recover so-called dual-use output materials which are not exclusively used for material recycling, but also for the production of energy or fuels, such as gasification and pyrolysis processes (see Figure 24). Justification: We completely agree with the approaches to increase recycling rates. However, for very complex products, in order to be environmentally, socially and economically viable/sustainable, these emerging technologies should not be excluded. Proposal: "Considering the complexity of certain textile wastes, the current state of textile recycling technologies and the rapid development of new innovative technologies for even complex fibre blends that are still unknown to date, the JRC proposes a largely technology neutral approach and to include all mechanical, thermo-mechanical and chemical recycling technologies and combinations thereof under scope, including recycling technologies, such as gasification and pyrolysis processes (see Figure 24).

Final page