circula·tex

STAKEHOLDER ENGAGEMENT AND CO-CREATION

D.1.1

www.circulatexeu.com
LinkedIn

Funded by the European Union

This project has received funding from the European Union's Horizon Europe Research and Innovation Programme under grant agreement n. 101181704

DELIVERABLE INFORMATION

Responsible Partner	Centexbel
Work Package	WP7
Author(s)	Ine De Vilder (Centexbel)
Contributing Partner(s)	COT, NTT, RINA
Dissemination Level	PU
Type	R – document, report
Due Date	30/06/2025
Submission Date	30/06/2025
Version	v 1.0

PROJECT PROFILE

Programme	Horizon Europe
Call	HORIZON-CL6-2024-CIRCBIO-01
Topic	HORIZON-CL6-2024-CIRCBIO-01-2
Number	101181704
Acronym	Circula-TEX
Title	Fostering Circularity in Textile: Innovative Interoperable Solutions and Best Practices for Implementation and Harmonization of EPR Schemes
Start Date	January 1, 2025
Duration	48 month

DOCUMENT HISTORY

Version	Date	Author	Remarks
v 0.1	11/06/2025	Ine De Vilder	First draft
v 0.2	16/06/2025	Ine De Vilder	Draft for review
v 1.0	30/06/2025	Ine De Vilder	Final version

DISCLAIMER

This project is funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union. Neither the European Union nor the granting authority can be held responsible for them.

All the contributors to this deliverable declare that they:

- Are aware that plagiarism and/or literal utilization (copy) of materials and texts from other Projects, works and deliverables must be avoided and may be subject to disciplinary actions against the related partners and/or the Project consortium by the EU.
- Confirm that all their individual contributions to this deliverable are genuine and their own work or the work of their teams working in the Project, except where is explicitly indicated otherwise.
- Have followed the required conventions in referencing the thoughts, ideas and texts made outside the Project

This deliverable has not yet been approved by the granting authority.

TABLE OF ABBREVIATIONS

Abbreviation	Definition
5R	Reuse, repair, redistribute, refurbish, remanufacture
D	Deliverable
D4R	Design for recycling
EEAB	External Expert Advisory board
EPR	Extended Producer responsibility
GDPR	General Data Protection Regulation
WP	Work package

EXECUTIVE SUMMARY

As starting point of the Circula-Tex project, a co-creation strategy has been drafted. It serves as a guideline for the comprehensive mapping exercises and co-creation activities, aiming at analysing existing requirements and gaps present in the textile value chain, along with the objectives that need to be addressed to reach circularity of the sector and how it should be done. The potentialities of EPR schemes and other complementary supporting measures are under assessment. More specifically, the aim is to gather input for the following co-creation topics:

- Sustainable design for recycling
- Methods for classification, composition identification, sorting and labelling systems
- Reuse, repair, redistribute, refurbish and remanufacture
- Textile waste treatments and EPR role

To be able to collect the necessary input, the knowledge domains of the internal partners have been mapped. An internal overarching workshop has been conducted to collect first inputs on Strengths, Weaknesses, Opportunities and Threats (SWOT) for the 4 topics.

Subsequently, over 100 external stakeholders have been identified. Of each, their activities have been analysed, and a strategy to individually contact them has been elaborated.

An external expert advisory board will be set up, to intensify the interaction with specific key stakeholders. The members will not only provide input to the project, they will obtain more detailed information on the progress of Circula-TEX, and they will be actively involved to also collect feedback from other stakeholders.

TABLE OF CONTENTS

1. LIST OF TABLES

2. LIST OF FIGURES

3. INTRODUCTION

This deliverable on stakeholder engagement and co-creation strategy has been drafted in the framework of WP1 - Requirements definition and stakeholders' engagement in co-creation process. The aim of Task 1.1 is to draft a co-creation strategy, supported by the project partners. It will serve as a guideline for the comprehensive mapping exercises and co-creation activities aimed at analysing existing requirements and gaps present in the textile value chain, along with the objectives that need to be addressed to reach circularity of the sector and how it should be done. The potentialities of EPR schemes and other complementary supporting measures are under assessment. More specifically, the aim is to gather input for the following co-creation topics:

- Sustainable design for recycling (T1.2)
- Methods for classification, composition identification, sorting and labelling systems (T1.3)
- Reuse, repair, redistribute, refurbish and remanufacture (T1.4)
- Textile waste treatments and EPR role (T1.5)

The outcomes of the phase 1 analyses will serve as basis for the consecutive phase 2 of the project (see Figure 1).

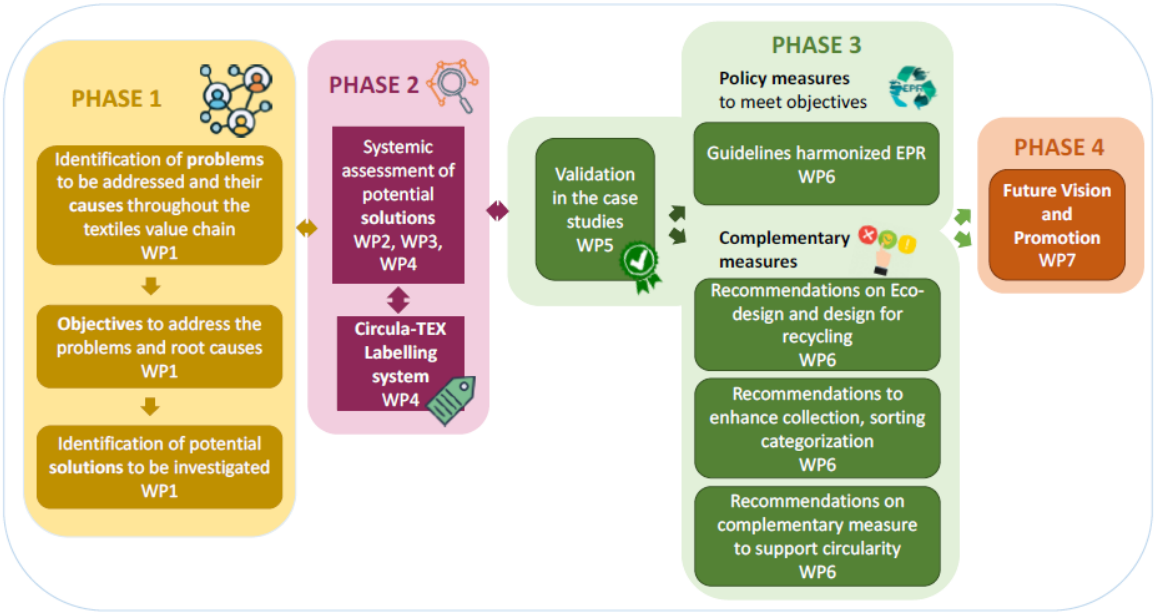

Figure 1: Circula-Tex methodology

4. STRATEGY

In **Error! Reference source not found.** the methodology for the co-creation strategy is depicted. Firstly, a stakeholder analysis must be conducted. This includes engaging with both internal (within the consortium) and external stakeholders. The input from the stakeholders will feed in the collaborative analysis. With the internal stakeholders overarching events will be organised, to collect input from the partners in joint (online) events. The interaction with the external stakeholders will be done on individual basis, enabling more in-depth discussions based their specific expertise.

The collaborative analysis will provide input (state of the art, gaps, barriers, etc.) for the 4 topics shown in bleu. The collected input on the defined topics will serve as input for phase 2 studies.

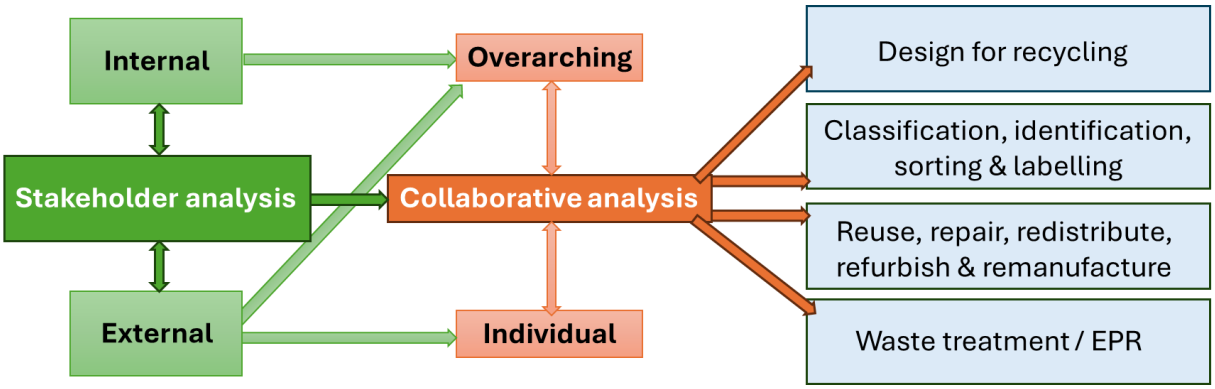

Figure 2: Schematic co-creation strategy

For each of the 4 co-creation topics, a coordinator and a facilitator have been selected. The main role of the coordinator is to take the lead and streamline efforts among participating partners, allowing to collect the necessary input for his/her specific co-creation topic. If assistance/collaboration is desired by the coordinator, the facilitator is the first contact point to turn to.

Table 1: Coordinator and facilitator co-creation topics

Co-creation topic	Coordinator	Facilitator
Design for recycling	RINA-C	COT, GFA
Classification, identification, sorting and labelling	COT	EUROTEX, TEXAID
5R	NTT	EUROTEX, TEXAID
Waste treatment and EPR	CTB	RETEX, MODINT

4.1 STAKEHOLDER IDENTIFICATION

4.1.1 ON CONSORTIUM LEVEL

As not all consortium partners have the same expertise, a mapping (via a questionnaire) was done to identify the fields where they potentially could contribute. Areas to contribute are design for recycling, classification and sorting, 5R and Waste treatments & EPR. As the domain of fashion / household linen / footwear is different than the domain of carpets, their expertise in both domains was questioned.

Further was also questioned if the partner

- Can give technical expertise and feedback
- Want to attend workshops, meetings and brainstorms related to their topics of interest
- Can collaborate on innovative solutions
- Can share best practices from industry

The outcome of this mapping can be found in Table 2 2. The matrix will serve as a basis throughout the project who to internally involve when specific topics will be discussed or input needs to be gathered.

Table 2 2: Internal stakeholder identification (x = carpet, x = fashion) – status June 2025

Company	Contact	D4R	classification & sorting	5R	Waste treatments & EPR	Technical expertise & feedback	Attending workshops, meetings, brainstorm	Collaborating innovative solutions	Sharing industry best practises
Fedustria	Bruno Eggermont	x	x	x / x	x / x		x	x	
TEXAID	Nastassja Koller		x / x		x / x	x	x		
Next Technology Tecnotessile	Enrico Venturini - Leonardo Marchetti	x	x	x	x / x	x	x	x	x
Global Fashion Agenda	Marta Inchausti	x	x	x	x / x		x		
NTT	Daniele Spinelli	x / x	x	x		x		x	
Temera	Maria Fernanda Hernandez Franco	x	x / x	x / x	x / x		x		x
TexCycle	Simeon Stoyanov	x / x	x / x	x / x	x / x	x	x	x	x
HUGO BOSS	Paul Matausch		x	x	x / x	x	x	x	x
Centexbel	Ine De Vilder	x / x	x / x	x / x	x / x	x	x	x	
Centexbel	Philippe Colignon	x / x	x / x	x / x	x / x	x	x	x	
Centexbel	Birgit Stubbe	x / x			x / x	x	x	x	
EURATEX	Mauro Scalia				x / x	x	x		
Ateval	Julia Vercher				x		x		
Modint	Peter Koppert	x	x	x	x / x	x	x	x	x
Texfor	David Allo	x / x	x		x / x	x	x	x	x

Company	Contact	D4R	classification & sorting	5R	Waste treatments & EPR	Technical expertise & feedback	Attending workshops, meetings, brainstorm	Collaborating innovative solutions	Sharing industry best practises
RINA	Ioana Muntean	x / x	x / x	x / x	x / x	x	x	x	
RINA	Michela Mattia	x / x	x / x	x / x	x / x		x		
RINA	Lucrezia Lodi	x / x	x / x	x / x	x / x	x	x	x	
RINA	Francesco Quadrella	x / x	x / x	x / x	x / x			x	
RINA	Pedro Pérez-Aguirre				x / x				
RINA	Giorgio Bonvicini	x / x			x / x	x			x
RINA	Laura Cornacchia	x / x	x / x	x / x	x / x			x	
RINA	Gaia Pedevilla	x	x	x / x	x		x		
Centrocot S.p.A.	Chiara Cressoni	x	x / x	x	x / x	x	x	x	x
Centrocot S.p.A.	Claudio Brugnoni	x	x / x	x	x / x	x	x	x	x
Centrocot S.p.A.	Paolo Ghezzo	x	x / x	x	x / x	x	x	x	x
RETEX.Green	Pasquale Campanile		x		x / x	x	x	x	x
Inticom Spa	Riccardo Tangredi	x	x	x	x / x		x	x	

4.1.2 EXTERNAL STAKEHOLDERS

In order to identify potential external stakeholders who could contribute to the 4 co-creation topics, a questionnaire was sent out to all project partners with the demand to list possible stakeholders who could contribute to one or more of the 4 topics. Stakeholders include industrial players, (ongoing) research projects, producer responsibility organisations (PROs), associations, policy agencies, ngo's, etc. Industrial players can be situated in the field of manufacturing of textiles and carpets, both also collection/sorting or recycling.

For each co-creation topic, an analysis of the listed potential stakeholders was done by the corresponding task leaders.

- Sustainable design for recycling: RINA-C
- Methods for classification, composition identification, sorting and labelling systems: COT
- Reuse, repair, redistribute, refurbish and remanufacture: NTT
- Textile waste treatments and EPR role: CTB

Around 120 external stakeholders were identified, and are listed in Annex I. The responsible partner for each co-creation topic made an overview of the activities of the identified stakeholders. This overview will serve as a reference document to individually contact stakeholders or invite them to co-creation events, both in phase 1 and phase 2 of the project.

4.2 COLLABORATIVE ANALYSIS

As a first step to collect input from the consortium partners, an overarching online workshop was conducted with all partners on April 29th, 2025, to kick-off the collaborative analysis. The workshop was hosted by the work package leader Centexbel, and 39 people participated to the workshop. After short presentations introducing the topics listed below,

- Sustainable design for recycling,
- Methods for classification, composition identification, sorting and labelling systems,
- Reuse, repair, redistribute, refurbish and remanufacture,
- EPR role,

breakout rooms were organised dedicated to these topics. On each topic a SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis was elaborated, gathering input from 4 distinct participants group.

This SWOT analysis makes a foundation to start the further analyses in Tasks 1.2 to 1.5, where the 4 topics will be further scrutinized, leading to a mapping of current technologies, identification of gaps and barriers, and potential solutions.

4.3 INDIVIDUAL ANALYSIS

As stated above, external and internal stakeholders, and their activities, have been identified. Next, these stakeholders were prioritized according to relevance for each collaborative analysis and an internal contact point was assigned, as according to GDPR rules, no contact details can be interchanged. When the stakeholder is active in more than one of the co-creation topics, this was also mapped.

During the upcoming year these stakeholders will be individually contacted by the internal contact point, to set an online meeting. Minutes of the meeting will be made in a structured way (see template in Annex VI) by the main contact point. All relevant partners, both from phase 1 as consecutive phases, will be able to attend the meeting.

4.4 ADVISORY BOARD

An External Expert Advisory Board (EEAB) will be set up in order to provide strategical guidance on project developments and replication potential beyond the project life. For this reason, the members will be involved with a co-creation approach as well. The EEAB preliminary composed during the proposal preparation includes:

- RINA-C, who will chair the Board;
- DECATHLON Direction industrielle textile (FR) – Brand owner;
- EUNOMIA Research and Consulting (UK) – Company already active in studies on EPR for EC;
- Erasmus School of History, Culture and Communication (NL) – Prof. Lavanga (Cultural Economics and Entrepreneurship) working on transformative research and education on just sustainable fashion transition

In the following months, new members will be invited to the board to create links with other strategic projects (e.g. twinning projects funded under the same topic), initiatives or entities active in relevant fields. A call for new members will be published on the website, and submitted applications will undergo an internal evaluation prior to admission to the EEAB.

As stated in consortium agreement (CA):

An External Expert Advisory Board (EEAB) will be appointed and steered by the Steering Committee. The EEAB shall assist and facilitate the decisions made by the General Assembly. The coordinator will ensure that a non-disclosure agreement is executed between all Parties and each EEAB member. The partners mandate the Coordinator to execute, in their name and on their behalf, a non-disclosure agreement (hereafter "NDA") with each member of the EEAB, in order to protect Confidential Information disclosed by any of the Parties to any member of the EEAB, either directly or through the Coordinator in the case where the concerned Party gave to the Coordinator its prior written approval for such disclosure.

A call to participate to the EEAB will be launched on the website. After online application of an entity, an approval process, led by the project coordinator, will take place, allowing to have the consent of all project partners. Once a project partner submits an objection, the applicant will not be retained.

5. OUTLOOK

The strategy defined in this deliverable will serve the information gathering in WP1. The identified stakeholders, when deemed relevant, will be contacted to contribute to the co-creation activities on:

- Sustainable design for recycling
- Methods for classification, composition identification, sorting and labelling systems
- Reuse, repair, redistribute, refurbish and remanufacture
- Textile waste treatments and EPR role

Also WP2 and following work packages will also make use of this stakeholder identification, to contact relevant stakeholders for the further information collection, linked to the specific work packages.

ANNEX I – EXTERNAL STAKEHOLDER IDENTIFICATION

Status June 2025

Stakeholder	Fashion	Carpet	5R	D4R	Identification and sorting	Waste treatments & EPR	Contact lead
ADEME	x					x	GFA?
ADIDAS	x			x		x	NTT
AIMAG			X			X	NTT
Albero y Sempere					x		
ALIA			X			X	NTT
Alma	x	x				x	NTT
Andritz	x	x	x	x	x	x	CTB
Aquafil		x		x	x	x	CTB
Axel One				x			NTT
Balta		x	x	x		x	CTB
Belysse		x	x	x	x	x	CTB
Boer Group	x				x	x	RETEX
Caritas Lugano			X				NTT
CAUTO			X			X	NTT
CETI			X	x			NTT
CIRPASS					?		CM?
Cisalfa	x					x	RETEX
CISUFLO					x		CTB
CISUTAC	x					x	CTB
circular.fashion	x				x	x	RETEX
CITEVE			X	x			NTT
Clutex						X	NTT
Corertex			x			X	NTT
Cormatex			X				NTT/COT
DBT fibre	x					x	COT
DCTV	x			x			
Decathlon	x			x	x	x	CTB

Stakeholder	Fashion	Carpet	5R	D4R	Identification and sorting	Waste treatments & EPR	Contact lead
Dell'Orco e Villani			X				NTT
Denuo	x			x	x	x	Fedustria
Ecologia Italiana			x			X	NTT
ECRA		x				x	CTB
EDEL carpets		x				x	CTB
Ellenmacarthur	x	x				x	Taltech
ENEA	x				x		COT
Ensait			X	x			NTT
Erasmus school	x	x			x	x	RINA
Erion	x				x	x	RETEX
eBIZ	x				x	x	RINA
EuRIC	x		x	x		x	Eurotex
Fil3			X				NTT
Filati Omega			X				NTT
Filatura del Vincio			X				NTT
Formació i Treball					x		
GFM-NET	x				x		COT
Goritex			X				NTT
Green Line			x		x	x	NTT
H&M	x			x		x	
HVA	x			x			
Humana	x	x			x	x	RETEX/COT
ID Factory	x	x			x		
Inditex	x					x	RETEX
Innovando	x	x			x		COT
Kiabi	x					x	
Landbell group	x					x	CTB
Living Lab carpet		x				x	CTB
MADE					x		COT
Magnolab	x					x	RETEX

Stakeholder	Fashion	Carpet	5R	D4R	Identification and sorting	Waste treatments & EPR	Contact lead
Manifattura Maiano			X				NTT
Manteco	x			x			
Marc O'Polo	x			x			
MATREC	x			x			
Municipal waste Europe	x	x				x	
Object carpet		x		x	x	x	CTB
OECD	x					x	GFA?
Ommi			X				NTT/COT
Oniverse	x					x	RETEX
OVS	x			x		x	
Partners for innovation		x				x	CTB
Patagonia	x			x			
Pattern group	x					x	RETEX
Pellenc					x		
PICVISA	x	x			x		
POLIMI (mechanical department)				x	x		COT
Prato TNT			X				NTT
PRO Belgium (RETEXBEL)	x					x	RETEX
PRO Germany	x	x				x	RETEX
PRO Poland	x					x	RETEX
PRO UK	x					x	RETEX
PRO Ungheria	x					x	RETEX
Progetto Lana			X				NTT
PVH	x			x			Eurotex
Pyratex	x			x			
Radici		x		x		x	COT
Recover	x					x	ATEVAL?

Stakeholder	Fashion	Carpet	5R	D4R	Identification and sorting	Waste treatments & EPR	Contact lead
Recyc'elite			X				NTT
Recydata	x					x	Fedustria
Redress Italia	x					x	RETEX
Refashion	x					x	RETEX
ReHubs					x		Eurotex
Renoon	x				x		
Rester Oy	x				x	x	RETEX
Re-Viste	x					x	RETEX
Rifò	x	x	x	x			NTT?
RISE			x	x	x		NTT
RReuse	x					x	CTB
Saxion University	x				x		
SCIRT (projects)					x		
SDA Bocconi Sustainability Lab - Monitor for Circular Fashion	x			x			TEMERA
Sfilacciatura Goti			x				NTT
SISNIR (NIR spectroscopy)					x		COT
SOEX	x	x			x	x	
STEM					x		COT
Stichting UPV	x					x	MODINT
Tarkett		x				x	CTB
Technoplants			X				NTT
Techtera						X	NTT
Teddy	x					x	
Ternua	x			x			
Tomra					x		
TRAFI CREATIVITà TESSILE	x		x				NTT
TRUSTex	x					x	CTB

Stakeholder	Fashion	Carpet	5R	D4R	Identification and sorting	Waste treatments & EPR	Contact lead
UNEP's 'Circularity and Used Textile Trade' Project	x	x			x		
Valvan					X		CTB
Van Dijk containers		x			x	x	CTB
Vesti Solidale	x	x			x	x	RETEX/COT
VIAVI solutions					x		COT
reFashion			X				NTT
Wieland Textiles					x		

ANNEX II – STAKEHOLDER ANALYSIS D4R

Status June 2025

Stakeholder	Criteria	Description	Source	Carpet / fashion	Prio-rity
AE.C.I. S.r.l.					3
Amsterdam University of Applied Sciences (HVA)	8. Circular Economy and Innovative Business Models 9. Technological Innovation for Recycling 10. Education and Awareness	The TRANSITIONS project is a strategic alliance for innovation, bringing together research and technological centers, vocational and higher education institutions, public policy actors, SMEs, and other sectoral organizations from Spain, Italy, the Netherlands, and Sweden. Its primary goal is to facilitate the transition of the textile and fashion industries towards Industry 4.0 and a circular economy. This is achieved by developing new learning methods, tools, and practices designed to help students, young designers, and professionals address real-world challenges. Key Activities: Development of Educational Resources: Creating innovative curricula and learning materials that focus on digitalization, sustainability, stakeholder engagement, and business and finance within the textile and fashion sectors. Loopholes Toolkit: Offering a set of tools and resources to support the industry's transition, addressing areas such as digitalization, sustainability, stakeholder engagement, and business and finance. T-Labs (Transition Laboratories): Implementing pilot projects and practical workshops that allow participants to apply new methodologies and tools in real-world settings, fostering hands-on experience and collaboration. Consortium Collaboration: Engaging a diverse group of partners, including research institutions, educational bodies, and industry stakeholders, to ensure a comprehensive approach to the sector's transformation. Through these initiatives, the TRANSITIONS project aims to equip the textile and fashion industries with the necessary skills and knowledge to adapt to evolving technological and environmental demands, promoting a more sustainable and innovative future.	https://transitionsproject.eu/team/	Fashion	1
Aquafil	CISUFLO project	Horizon project - in this framework Aquafil (together with Edel - Condor Group) developed a new concept of monomaterial carpet made with ECONYL. Moreover, in collaboration with Belysse, they tested a new technology for the separation of multi-stratify carpets	Aquafil Sustainability Report	Carpet	2

Stakeholder	Criteria	Description	Source	Carpet / fashion	Prio-rity
	2. Recyclable or Biodegradable Materials	Different materials are certified (caprolactam, yarn and polymers to certify the presence of recycled materials)			
	3. Ease of Disassembly	R2R project: Aquafil helps its clients to develop carpets and moquette completely disassembled and regenerable at the end of their life, made with ECONYL® nylon (nylon made entirely from waste and recyclable infinite time)			
	5. Reduction of Hazardous Chemicals	Aquafil possess different certifications with respect of the presence of hazardous chemical substances: OEKO-TEX, Cradle to Cradle Material Health Gold&Silver for ECONYL yarn and ECO Passport			
	9. Technological Innovation for Recycling	MAGRITTE project: innovative ECONYL-based material for large-scale 3D printing that can be fully regenerated and reintegrated into the production cycle			
Barbara Pollini	1. Material Simplicity 2. Recyclable or Biodegradable Materials 5. Reduction of Hazardous Chemicals 7. Material Transparency 10. Education and Awareness	The Healing Materialities project is an interdisciplinary initiative exploring the intersection of design, materials, and health. The project's focus can be inferred from its activities and thematic areas. Key Activities: Research: Investigating how material choices in design impact human health and well-being. Workshops and Events: Organizing collaborative sessions to engage stakeholders in discussions about sustainable and health-promoting materials. Publications: Producing articles and reports to disseminate findings and promote best practices in material selection. There is a section with Informal interviews on materials for and from living organisms with experts and plenty of scientific publications.	https://healing-materialities.design/home/		3
Blumine	Generic	Milan-based consultancy and research, specialized in sustainability for fashion, textile, and design industry, supporting companies in integrating sustainability across the supply chain, including circular economy strategies, risk assessment, and communication. They also support Detox commitments (e.g., Greenpeace Detox). Member of HEREWEAR project (led by Centexbel)	Blumine Website	N/A	2

Stakeholder	Criteria	Description	Source	Carpet / fashion	Prio-rity
Burberry	4. Durability and Extended Life Cycle	ReBurberry Services offers a selection of services aimed at cleaning, restoring, and preserving products. Examples include the Trench Refresh, which addresses minor repairs, and Rainwear Reproof, which maintains waterproof properties.	Burberry Sustainability Report	Fashion	2
	5. Reduction of Hazardous Chemicals	Burberry Manufacturing Restricted Substances List (MRSL) prohibits all Perfluoroalkyl and Polyfluoroalkyl Substances (PFAS) in addition to the Zero Discharge of Hazardous Chemicals (ZDHC) MRSL. Burberry Product Restricted Substances List (PRSL) ensures the safety of our products through monitoring and robust testing standards. They are implementing the ZDHC Supplier to Zero (S2Z) programme across our value chain to ensure that the best practices in sustainable chemical management are adopted.	Burberry Sustainability Report		
	7. Material Transparency	100% of key raw materials in our products to be certified and traceable by FY 2029/30	https://www.burberryplc.com/ investors/esg		
	8. Circular Economy and Innovative Business Models	Besides Repair, Rental and Remake, In FY 2023/24, they created a partnership with global luxury resale platform Vestiaire Collective in the UK and USA. Customers can trade in Burberry women's outerwear and handbags on the Burberry x Vestiaire Collective platform in exchange for a Burberry gift card, which can be used in-store or online	Burberry Sustainability Report		
Decathlon	2. Recyclable or Biodegradable Materials	To make their thread, they add a virgin cotton fiber from recycled cotton, sourced from unused industrial or textile waste.			
	3. Ease of Disassembly	In Decathlon internal evaluation system, 4 criteria have been included: disassembly, availability of parts, price and documentation			
	4. Durability and Extended Life Cycle	In the development of a new product, engineers take into consideration products current wear and tear points.			
	4. Durability and Extended Life Cycle	They developed a methodology of the internal repairability index that was audited by the French association HOP (Halte à l'Obsolescence Planmée) and the Auxilia firm in order to guarantee the relevance of the method as well as to continue to improve it.			
Depoortere					3
H&M	2. Recyclable or	H&M aims for 100% of materials to be either recycled or sustainably sourced by 2030, including 30% recycled materials by 2025 and a new ambition to reach 50% recycled materials by 2030.	H&M Group Sustainability Report	Fashion	1

Stakeholder	Criteria	Description	Source	Carpet / fashion	Prio-rity
	Biodegradable Materials				
	4. Durability and Extended Life Cycle	H&M group is developing durability wash test project, as well as durability and strength test based on risks like bursting, pilling. H&M is involved in Product Environmental Footprint (PEF) where they contribute to develop a methodology for durability, repairability and recyclability.			
	5. Reduction of Hazardous Chemicals	H&M collaborates with AFIRM (Apparel and Footwear International Restricted Substance List Management Group), ZDHC (Zero Discharge of hazardous Chemicals), ChemSec Business Group. H&M also uses third-part hazard-assessed chemical such as Screened Chemistry certified chemicals. Practical example: phaseout of potassium permanganate			
	6. Design for Reuse	H&M continues to work with The Jeans Redesign guidelines on several core styles for menswear and Divided			
	8. Circular Economy and Innovative Business Models	H&M develop a solution to automate buying of products, collecting data on changes in customer demands, stock levels already produced, and garments already available to customers. By integrating this data in buying decisions and sharing data with suppliers they improve their assortment planning			
	9. Technological Innovation for Recycling	H&M is collaborating with Deven Supercriticals, developers of a technology that uses supercritical CO2 to dye fabric in place of water and other chemicals, significant reducing energy, water, and chemical consumption H&M launches successful collections using Recycrom, a dye technology which comes from discarded textiles after recycling H&M Group Ventures invest in Colorifix, a biotech company that uses biological processes to produce and fix dye on textiles.			
Hackett	2. Recyclable or Biodegradable Materials	Whenever possible, Hackett endeavours to use recycled cotton, polyester and nylon in the production of its new collections to give new life to old fabrics	https://www.hackett.com/gb/sustainability.html#responsive	Fashion	2
	5. Reduction of Hazardous Chemicals	Certified by Control Union, Wiser Wash denim is manufactured using a responsible water management process that eliminates the use of pumice stones and toxic chemicals.	https://www.hackett.com/gb/sustainability.html#responsive		
	7. Material Transparency	In terms of sustainable fabrics, organic cotton builds and retains organic matter in the soil, while minimizing air, ground and water contamination. It is a traceable textile that reduces greenhouse gas emissions by avoiding the use of synthetic fertilizers and pesticides.	https://www.hackett.com/gb/sustainability.html#responsive		

Stakeholder	Criteria	Description	Source	Carpet / fashion	Prio-rity
Hedoine	2. Recyclable or Biodegradable Materials	They have combined the technology of the tights with certified Amni Soul Eco® yarn - this means crafting with the best possible yarn and the only polyamide yarn in the world with enhanced biodegradability.	https://hedoine.com/pages/biodegradable-tights-sustainable-fashion?srsltid=AfmBOormRvP5h-nxH0w3k8MmkLIjhgcND1Jh2dtd57F2itRp6gQXYF0e	Fashion	3
	5. Reduction of Hazardous Chemicals	The new biodegradable tights are produced mindfully in Italy using recycled water and are also OEKO-TEX® certified, which means they're rigorously checked for all kinds of horrors – from pesticides and heavy metals to carcinogenic colouring and hundreds of other chemicals	https://hedoine.com/pages/biodegradable-tights-sustainable-fashion?srsltid=AfmBOormRvP5h-nxH0w3k8MmkLIjhgcND1Jh2dtd57F2itRp6gQXYF0e		
	7. Material Transparency	At their tight's end of life, The Biodegradable can be thanked for their wardrobe services and disposed of via general waste - keep reading for more on this, Hedoines. 5 YEAR BREAKDOWN PLAN The biodegradable nylon (85% of product composition) breaks down into organic matter thanks to the natural functioning of bacteria in anaerobic conditions. This takes up to 5 years	https://hedoine.com/pages/biodegradable-tights-sustainable-fashion?srsltid=AfmBOormRvP5h-nxH0w3k8MmkLIjhgcND1Jh2dtd57F2itRp6gQXYF0e		
Holzweiler	4. Durability and Extended Life Cycle	Care instructions are always shared with every product they sell, and extended treatment tips are available on the WEBSITE. Home in Norway, our Repairable.no are on hand for easy repair services.	Holzweiler Sustainability Report	Fashion	2
	6. Design for Reuse	By the end of 2023, the whole team will be trained in Accumark Gerber, a 2d pattern construction software to help accelerate the process even further: digitizing our block library, and ensuring correct size set and grading for our products.			
	11. Supply chain traceability	The first digitized products are launching in Spring Summer 23 Collection, encompassing customer favourites like the W´Oslo and Ranger National Tees. We will also continue to implement digital ID´s on more bestselling products for forthcoming collections, including all our jersey garments and cult down jackets in 2023. Thanks to these DPPs and their unique digital IDs, Holzweiler will also be able to scale resale and repair services globally and make these services easily accessible, whatever the location our products are being loved in. This is a major focus in the coming year.			

Stakeholder	Criteria	Description	Source	Carpet / fashion	Prio-rity
Loewe	6. Design for Reuse	Launched in 2021, The Surplus Project presents a new way to re-think and re-use the surplus material from previous LOEWE collections in order to create something beautiful with low impact.	https://www.loewe.com/eur/en/information/sustainability-at-loewe.html		3
Manteco	2. Recyclable or Biodegradable Materials	Manteco ReviWool® is made of valuable co-product fibers coming from the worsting process of virgin wool, which are recovered and masterfully processed through the woollen process Mwool® is made by mechanically recycling post-industrial waste, pre-consumer offcuts and leftovers, and post-consumer garments (MWool is the first-ever recycled wool with a Life Cycle Assessment approved by scientific community) Recype® implies no addition of dye since new wool colors are obtained by mixing numerous and different shades of recycled wool fibers, developing actual "recipes" of no-dye colors, which are archived and adapted to the kgs of yarns required.	https://www.sciencedirect.com/science/article/pii/S0959652623020358?via%3Dihub	Fashion	1
	5. Reduction of Hazardous Chemicals	According with 4Sustainability® chemical management protocol, Manteco has mapped and qualified the supply chain joining the level Advanced. Thanks to an effective sampling method, fiber samples can be obtained whose analysis results are representative of the batch, but theoretically each fiber in each individual batch of recycled wool could have its own history. Since predicting chemical risk of raw materials from different origins, dyeing techniques ecc is impossible, Manteco punctually performs chemical tests in a systematic way at the inlet of purchased recycled wool in order to verify its compliance with worldwide mandatory regulations and brand PRSLs			
	6. Design for Reuse	Manteco® fabrics are designed to be durable and recycled. Thanks to investments in R&D, the company has developed specific know-how in the design of fabrics that can be easily reused in production cycles. The "Sustainable Design" initiative shows how the company thinks in a circular way. The recycling phase is not the last step in the life cycle of the fabric, but the starting point for the sustainable production of new fabrics.			
	10. Education and Awareness	Manteco is part of Ellen McArthur Foundation and of Monitor for Circular Fashion. Moreover, they developed Manteco Academy with the purpose of spread eco-design principles in circular fashion.			
Marc O'Polo	1. Material Simplicity	Recycled down and feathers are obtained through a careful process in which down and feathers are extracted from used products, these used materials are collected and cleaned and retain their high insulating properties even after reprocessing	https://www.marc-o-polo.com/en-us/women/sustainability/materials	Fashion	2
	2. Recyclable or Biodegradable Materials	Description of point 1. and the fact that Marc O'Polo uses regenerated cellulose fibers (viscose, lyocell, modal) from fiber manufacturers that achieve at least 80 percent of the possible maximum score in the Canopy Hot Button Ranking.	https://www.marc-o-polo.com/en-us/women/sustainability/materials		

Stakeholder	Criteria	Description	Source	Carpet / fashion	Prio-rity
	4. Durability and Extended Life Cycle	Compliance with Circular Design Criteria for products is assessed using circular.fashion's circular design software. All collected data and information are verified by an independent external body. These products are marketed under the "Designed for Circularity" label and represented 9% of clothing sales during the reporting period. To support the industry's transition to a circular economy, they want to progressively increase the share of Designed for Circularity products, aiming for at least 50% of total production volume by 2030.	Marc O'Polo Sustainability report		
	5. Reduction of Hazardous Chemicals	Input-chemicals management: They oblige their suppliers to use chemical formulations that conform to the ZDHC Manufacturing Restricted Substances List (MRSL) in the manufacturing of our products. Substances of Very High Concern (SVCH) are prohibited, the same is applied to PFAS (perfluorinated and polyfluorinated chemicals) Output-chemicals management: Marc O'Polo introduces internal system for evaluating effluent treatment plants.	Marc O'Polo Sustainability report		
	6. Design for Reuse	Marc O'Polo has developed a collaboration with circular.fashion for promoting expansion of recyclable products.	Marc O'Polo Sustainability report		
	10. Education and Awareness	Marc O'Polo carry out training sessions in India and Turkey in the local languages regarding chemicals management Since 2022, their employees from several departments in workshop regarding fibres, processes, chemistry, design and circular business models	Marc O'Polo Sustainability report		
	11. Supply chain traceability	Marc O' Polo is certified to the Responsible Wool Standard, the Responsible Mohair Standard and the Responsible Alpaca Standard	https://www.marc-o-polo.com/en-us/women/sustainability/materials		
Millet/Lafuma	4. Durability and Extended Life Cycle	Through LCA Millet identified in the production of the materials used in their products the bulk of the environmental impacts. In accordance with that, Millet created prototyping and repair workshop in different stores. (An example of the efficiency of that is the comparison of the emissions deriving from the repairing of a Gorotex jacket (50 kg CO2 eq) in comparison with buying a new jacket	https://www.millet.com/eu_en/commitments/circular-economy/	Fashion	2
	5. Reduction of Hazardous Chemicals	Most of the material that they develop have Bluesign or Oeko-Tex certification. The materials from partners is tested each season also for high-risk substances	https://www.millet.com/eu_en/commitments/pollution/		
	8. Circular Economy and Innovative Business Models	Since March 2023 Millet has been offering its customers the option of renting clothing and equipment			

Stakeholder	Criteria	Description	Source	Carpet / fashion	Prio-rity
Object Carpet	1. Material Simplicity	Object Carpet develop the first circular mono-material carpet, NEOO carpet, made of 100% polyester		Carpet	1
	2. Recyclable or Biodegradable Materials		https://www.object-carpet.com/en/company/about-object-carpet/circularity/neoo-carpet		
	8. Circular Economy and Innovative Business Models	Their carpets are characterized by the presence of Niaga® tag – this label attached to the product indicates that the product should not be discarded and also provides additional information, such as the material composition and return procedure. Because the return of the products is central to the circular economy.	https://www.object-carpet.com/en/company/about-object-carpet/circularity		
	9. Technological Innovation for Recycling	In DUO carpet they applied the innovative HOLTMELT adhesive, that ensures that the 2 main materials presents (high-quality polyamide and polyester) can be separated by applying only heat and returning to the recycling loop.	https://www.object-carpet.com/en/company/about-object-carpet/circularity/duo-carpets		
OVS	4. Durability and Extended Life Cycle	Development of a programme and solutions dedicated to extending the life of garments	OVS Sustainability report	Fashion	1
	5. Reduction of Hazardous Chemicals	OVS requires its suppliers to comply with the limits expressed in the Manufacturing Restricted Substance List. Consistently OVS activated a program to monitor its suppliers by collecting and reviewing the tests carried out on wastewater and, in the event of critical issues, by a constructive collaboration to research the causes and identify solutions			
	7. Material Transparency	Launch of a circularity programme and revitalisation of the second-hand collection and sorting process.			
	8. Circular Economy and Innovative Business Models	OVS developed the "Better Products" criteria which requires at least: be produced with one or more fibres chosen from among the most sustainable alternatives; have a production process with a lower impact; have obtained a social or environmental certification of the finished product; be the result of a special social impact project or upcycling			
	10. Education and Awareness	OVS programme "Donate your used clothes to Humana" is present in more than 800 stores, in which customers can hand their used clothes			

Stakeholder	Criteria	Description	Source	Carpet / fashion	Prio-rity
	11. Supply chain traceability	Integration of information on the production chain (see Digital Product Passport), impact data (with the refinement of Eco-Value), garment durability and end-of-life destination. Since Cotton is the main material in OVS collection, in 2022 they started to produce an entirely Italian organic cotton yarn, creating OVS Cotone Italiano collection.			
Patagonia	2. Recyclable or Biodegradable Materials			Fashion	1
	4. Durability and Extended Life Cycle	The Worn Wear Program exemplifies Patagonia's dedication to a circular economy. This initiative encourages people to repair, reuse, and recycle their clothing. Patagonia provides online tools and repair kits to help customers fix their gear. They also host events to teach repair skills. In addition to repair, Patagonia offers trade-in options for used gear, which is then resold, extending the life cycle of each product			
	5. Reduction of Hazardous Chemicals	Conventional batch-dyeing requires a tremendous amount of water and energy, resulting in waste and carbon emissions. Patagonia switched a selection of products to solution dyeing (pigment is added directly to the material before making the fiber), resulting in water and carbon savings compared to batch dyeing and releases considerably fewer chemicals from the overall process. Since the yarn is created in a specific color (versus first being produced and then dyed), the color is confined within the yarn and the color then becomes intrinsic to the yarn through solution dyeing.	https://www.patagonia.com/our-footprint/solution-dyeing.html		
	9. Technological Innovation for Recycling	JEPLAN programme: Japan-based recycling programme that consists in chemically recycling PET, creating pellets or resin that are used by Patagonia to produce yarn and virgin-quality fabric. Chemical recycling moreover removes any impurities or dyes, giving the recycled product flexibility in color, quality and performance.	https://www.patagonia.com/our-footprint/jeplan.html		
	11. Supply chain traceability	Patagonia's Supply Chain Environmental Impact Program aims to measure, reduce, and eliminate the environmental impacts of manufacturing its products. Implemented globally at supplier facilities, the program covers areas like environmental management systems, chemicals, water use and emissions, energy use, greenhouse gases, air emissions, and waste. Suppliers are encouraged to exceed minimum requirements and demonstrate environmental excellence through better practices, earning recognition as responsible partners.	https://www.patagonia.com/our-footprint/supply-chain-environmental-responsibility-program.html		
Pepe jeans	2. Recyclable or	Garments and fabric scraps discarded by factories can be recycled and used again, while plastic waste can be transformed into reusable polyester or nylon fibres. We use some of these materials in our PEPE FUTURE clothing.	https://www.pepejeans.com/it_it/sustainability.html	Fashion	2

Stakeholder	Criteria	Description	Source	Carpet / fashion	Prio-rity
	Biodegradable Materials				
	5. Reduction of Hazardous Chemicals	Certified by Control Union, Wiser Wash denim is manufactured using a responsible water management process that eliminates the use of pumice stones and toxic chemicals.	https://www.pepejeans.com/it_it/sustainability.html		
	11. Supply chain traceability	In the creation of our footwear, accessories and some garments in the collection, we use responsible leather, sourced from reliable tanneries and obtained through certified practices.	https://www.pepejeans.com/it_it/sustainability.html		
POLIMI (Alessandra Zanelli, Carlo Vezzoli, Caporaso)	7. Material Transparency 8. Circular Economy Sustainable design	The Remanufacturing for AEC project is led by a multidisciplinary team from Politecnico di Milano. Their focus is on promoting remanufacturing in the Architecture, Engineering, and Construction (AEC) sectors to support sustainable development. Key activities include: Research on remanufacturing technologies. Life cycle assessments and sustainable building practices. Collaboration with industry stakeholders to promote sustainable construction.	https://www.remanufacturingforaec.polimi.it/en/promoters/	Fashion	2
Radici Group	Generic	In the fibres sector RadiciGroup is a global player able to offer polyamide, polyester, acrylic fibres, polyethylene and polypropylene. These sustainable products are used beyond other sectors for apparel (technical wear, intimate wear, sportswear)	Radici Group - A world of yarns	Fashion and carpet	1
	2. Recyclable or Biodegradable Materials	Some of Radici yarns's (e.g. r-Radyarn or Starlight) are made with recycled and/or waste materials. The two aforementioned are obtained from post-consumer recycled polymer (PET bottles)			
	5. Reduction of Hazardous Chemicals	For different fibers they applied ecofriendly solution dyeing technologies (mass dyeing)			
	10. Education and Awareness	In autumn 2023, Radici group introduces the first edition of "Scaling up sustainability and circularity" first large-scale training course			
Rifò	1. Material Simplicity	Rifò choose yarns and fabrics that contain only one material to ensure garments recyclability at the end of their lifespan. The only exception is wool cloth, which includes polyamide for reinforcement but will be replaced to achieve 100% mono-material production. Apart from this wool blend, all other textiles are	Rifò sustainability report	Fashion	1

Stakeholder	Criteria	Description	Source	Carpet / fashion	Prio-rity
		mono-material, representing 96% of the yarns and fabrics used in production in 2023.			
	2. Recyclable or Biodegradable Materials	In 2023 nearly all textiles used in their production were 100% natural, since synthetic fibers release microplastics and tends to wear out quickly			
	4. Durability and Extended Life Cycle	Rifò has developed FOREVER SERVICE that can be utilized after at least 5 years from the purchase. This complimentary service allows them to send the worn-out garment for recycling and ensures our garments are not disposed of at the end of their life			
	5. Reduction of Hazardous Chemicals	Their recycled cashmere and wool require no dyeing, as they come from color-sorted textile waste, reducing environmental impact. Moreover, for recycled cotton they switched to natural dyes from plants, animals, and minerals to ensure biodegradability. Though eco-friendly, natural dyeing is labor-intensive and suited for small-scale production.			
	8. Circular Economy and Innovative Business Models	Rifò products are covered for 3 years from the purchase date by a Warranty that ensures free repair service for any manufacturing defect. Their products are provided with digital product passport			
	10. Education and Awareness	Rifò takes part in Textile Tours, initiatives whose aim is to offer people the opportunity to witness circular supply chain firsthand			
	11. Supply chain traceability	Rifò purchases most of their yarns and fabric from suppliers whose production processes take place in Italy, the sole exception is cotton yarn, from Spain			
SDA Bocconi - Sustainability Lab - Monitor for Circular Fashion		The Sustainability Lab is a multidisciplinary think tank dedicated to applied research in the field of sustainability. Its mission is to support companies, institutions, and stakeholders in creating long-term sustainable value. Main Areas of Research - Corporate Sustainability & Natural Capital: Integration of sustainability into corporate strategies and enhancement of natural capital. - Blue Economy & Innovation: Promotion of sustainable economic models related to marine and coastal ecosystems. - Renewable Energy Management: Management and development of renewable energy sources. -SRI & ESG: Socially Responsible Investing and the application of Environmental,	https://www.sdabocconi.it/upl/entities/attachment/M4CF_report_2024-25.pdf	Fashion	1

Stakeholder	Criteria	Description	Source	Carpet / fashion	Prio-rity
		Social, and Governance criteria. -Sustainable Governance & Non-Financial Reporting: Sustainable corporate governance and non-financial reporting practices. Among the flagship initiatives is the Monitor for Circular Fashion, developed in collaboration with Enel X. It is a multi-stakeholder project involving leading fashion companies and supply chain players, aiming to promote circular economy practices. The monitor provides a clear view of the maturity level of circularity in the Italian fashion sector, identifying best practices, challenges, and roadmaps for integrating circularity.			
TENDAM Group	5. Reduction of Hazardous Chemicals	TENDAM is committed to eliminating all hazardous substances from our supply chain and verify compliance with our requirements through end-product testing. TENDAM has been a member of the Zero Discharge of Hazardous Chemicals (ZDHC) alliance since 2021 and support the Roadmap to Zero initiative.	https://www.tendam.es/en/product/	Fashion	2
	8. Circular Economy and Innovative Business Models	TENDAM is part of several strategic alliances to path the way to a more sustainable fashion sector, an example includes Association for management of Textile waste, whose purpose is collecting textile waste in Spain	Tendam Sustainability Report		
Tenua	1. Material Simplicity	Project LOOP YOUR WEAR: Each of the materials used are made from a single polymer, to facilitate the recycling of the garments and reduce their environmental impact.	https://www.ternua.com/com/circularity-loop-your-wear	Fashion	1
	5. Reduction of Hazardous Chemicals	PFCs are synthetic compounds whose properties make it possible to provide the outer surface of fabrics with an impermeable and non-stick finish. However, they are highly toxic and when they become detached from the garments in small fragments, they seriously pollute the environment. At Ternua they eliminated their use by finding equally effective and biodegradable alternatives.	https://www.ternua.com/com/sustainable-treatments/		
	5. Reduction of Hazardous Chemicals	Project NUTCYCLE: A project that reuses agricultural waste and applies it to garments as a natural dye, also avoiding the use of artificial dyes. It is a project in which we are working together with the Environment Department of the Gipuzkoa Provincial Council and the association of cider houses of Gipuzkoa and Archroma.	https://www.ternua.com/com/sustainable-treatments/		
	9. Technological Innovation for Recycling	At Ternua, they incorporate the latest sustainable technological innovations in our garments to combat the unpleasant odour generated by sweat. Like S-Café technology, developed from the antibacterial properties of coffee grounds	https://www.ternua.com/com/sustainable-treatments/		

Stakeholder	Criteria	Description	Source	Carpet / fashion	Prio-rity
VTT		Development of Sustainable Fibres and Nonwovens: Assists in creating eco-friendly fibres and fabrics, focusing on renewable raw materials like cellulose to replace traditional cotton and polyester.		Fashion	2
		Pilot-Scale Manufacturing Support: Provides tailored piloting facilities, including fibre spinning and nonwoven production lines, enabling clients to test and refine sustainable textile manufacturing processes.			
		Advanced Recycling and Circular Economy Initiatives: Develops innovative recycling methods for textiles, such as sensor-based fibre identification systems, to enhance recyclability and promote a circular economy within the textile sector.			
		Expertise in Fibre Identification: Offers solutions for accurate identification of various fibre types, crucial for effective sorting and recycling operations in the textile industry			
Wastex	8. Circular Economy and Innovative Business Models	Few informations available: examples of their work includes Recycled textile --> building, automotive, furniture, insulation waste from mattress production (PU foam and latex) --> home furnishing and mattress production Carpet waste --> automotive	https://www.unido.org/sites/default/files/files/2018-11/Plenary%204%20-%20Textile%20-%20Querci.pdf		3
Zippy		Zippy's suppliers are required to adhere to stringent guidelines and practices aimed at minimizing the environmental and health impacts of chemical usage. They encourage the implementation of systems such as Material Safety Data Sheets (MSDS) and programs for the recycling, reutilization, and recovery of by-products. Regulatory requirements such as the REACH list for substance restrictions, is mandatory for all our suppliers.	https://zippyonline.com/pages/sustainability		2
		In order to control its commitments, Zippy has established objectives, indicators and action plans to improve the environmental performance of its products through use of ecological, recyclable or natural materials that are more environmentally friendly; Reduction of Carbon Footprint, Ecodesign, and Circular Economy.	https://zippyonline.com/pages/sustainability		
		Zippy has stringent requirements regarding the sourcing of cotton, refusing any material from regions associated with high risks of child labor, forced labor, or other human rights violations.	https://zippyonline.com/pages/sustainability		

ANNEX III – STAKEHOLDER ANALYSIS IDENTIFICATION AND SORTING

Status June 2025

Stakeholder	Fashion / carpet	Classifi-cation	Compo-sition	Sor-ting	Label-ling	Category	Brief description	Potential contribution	Priori ty
Aquafil	CARPETS	x	x	x	x	manufacturer	Chemical recycler of PA6 carpets	Experience on sorting (for recycling) carpets, information about labelling and composition identification of materials for recycling	1
Formació i Treball	FASHION	x		x		NGO association	non-profit foundation founded by Càritad Diocesana de Barcelona, working, among other activities in collection, cleaning, laundry construction and waste disposal servicies. With its company Recibaix they also recycle materials. https://www.formacioitreball.org/la-fundacio/	they can provide information of sorting methodology and classification for recycling	3
Albero y Sempere	FASHION	x				manufacturer	With more than 20 years of experience in the textile sector, at AiS SL they offer a wide range of products with the quality certificate of the European Community. We work with natural and recycled fibers, being respectful of nature and thus generating less impact on the planet. https://alberoisempere.wordpress.com/productos/	they can provide information about methods for classification according to features that recycled materials should have to find a market	2
Project CISUFLO	CARPETS					research project	(carpets) working on new technologies and products to improve materials' recovery and drive the flooring sector in Europe towards a circular economy. https://www.cisuflo.eu/	they can provide information (state of art, best practices) on the classification of materials (carpets) and composition identification	1*
Wieland Textiles		x	x	x		technology provider	innovative sorting company, Dutch, recycling of sorted fibers into uniform categories. they developed together Valvan Baling Systems the Fibersort system.	sorting methodology and instrument - classification (also based on fiber quality)	1

Stakeholder	Fashion / carpet	Classifi-cation	Compo-sition	Sor-ting	Label-ling	Category	Brief description	Potential contribution	Priori ty
eunomia						sustainability consultant	As global sustainability consultant, Eunomia was commissioned by Changing Markets and the European Environmental Bureau to conduct a study on the role of extended producer responsibility (EPR) and supporting policy measures in driving a circular economy for textiles in Europe.	they can provide info in best practices and study cases in the topic of interest	3
erasmus school of history	FASHION					University Competence center	involved in textile sustainability, partner of project Re-frame fashion https://www.eur.nl/en/eshcc/research/re-frame-fashion/about-re-frame-fashion-project	as project manager of project re-frame she can provide info about current needs of the fashion industry	3
circular.fashion				X	X	sustainability consultant	circular design workshops for bands, sorters, material producers, recyclers. software for Circular Design, helping fashion brand become sustainable	see their circular design kit https://circular.fashion/downloads/2021_circular.fashion_circular_design_kit.pdf	3
Object carpet (Niaga)	CARPETS					manufacturer	producers and designers of carpets and acoustic walls https://www.object-carpet.com/en?ppc_keyword=carpet%20design&gad_source=1&gclid=CjwKCAiAw5W-BhAhEiwApv4goC07z0mCnUy_ZmBaJh5t7VJPwBdYHAS6kd0ZZ0wxU9z-Tu9xx7CV_hoCWl0QAvD_BwE	They have a technology called Niaga to produce monomaterial carpet and carpets where the layers can be separated before recycling	3
Belysse	CARPETS					manufacturer	Carpet producers and designers https://www.belysse.com/en/about-us	active in the field of sustainability and recyclability/reuse of carpet tiles - expressed interest for circula-tex	3
Balta	CARPETS					manufacturer	Carpet producers and designers - https://www.balta-carpets.com/	active in the field of sustainability and recyclability/reuse of carpets - expressed interest for circula-tex	3
Andritz			x	x		technology provider	leading supplier of plants, equipment, automation solutions and services , including automated sorting and both mechanical and chemical recycling for the textile sector	they can provide technological support to the definition of gaps and needs in automated sorting for recycling	2

Stakeholder	Fashion / carpet	Classifi-cation	Compo-sition	Sor-ting	Label-ling	Category	Brief description	Potential contribution	Priori ty
PICVISA		x	x	x		technology provider	Automation of textile recycling by identification and classification technique, such as infrared and color optical sensors or such as artificial intelligence and robotics. https://picvisa.com/optical-sorting/ecosort-textil/	they can provide technological support to the definition of gaps and needs in composition identification and automated sorting for recycling	1
Decathlon		x	x	x		brand	brand (partner of SCIRT project, see below)	as a partner of SCIRT project they can provide info about best practices in classification of waste and sorting/ composition identification	3
SCIRT		x	x	x		research project	The SCIRT project aims to demonstrate a complete textile-to-textile recycling system for discarded clothing—or post-consumer textiles—involving stakeholders throughout the value chain and focusing on the recycling of natural fibres, synthetic fibres and fibre blends. https://scirt.eu/project/	interesting as a best practice in classification of waste and sorting for recycling . NOTE: interesting also for 5R and EPR	1
ReHubs							ReHubs is a partnership-based collaboration hub working to industrially scale textile-to-textile recycling in Europe and boost the adoption of recycled fibres throughout the value chain.	the partners of the community can provide best practices and helps in gaps & needs identification in sorting and classification, both from a brand perspective and from sorters and recyclers one.	1
CIRPASS			x		x	research project	project about DPP in different sectors (textile is included). interesting documentation and user stories in: https://cirpassproject.eu/project-results/	results of the project and advancements of CIRCPASS-2 can provide state of the art and case studies for labelling according to DPP	2
Renoon					x	technology provider	software provider. "Substantiate every sustainability claim with concrete proof points across environment, society, circularity, technology, and animal ethics. With Renoon, you can ensure to maintain your brand's trustworthiness by communicating with	they can provide info about gaps and needs in traceability and labelling system	2

Stakeholder	Fashion / carpet	Classifi-cation	Compo-sition	Sor-ting	Label-ling	Category	Brief description	Potential contribution	Priori ty
							precision and always staying in line with market expectations, best practices and new European or US legislation." https://www.renoon.com/product		
ID Factory					x	technology provider	End to end supply chain traceability solution for the fashion and textile industry, The ID Factory offers to the fashion and luxury industry a way to trace the components, materials and processes for garment, footwear products as well as accessories. https://theidfactory.com/	they can provide info about gaps and needs in traceability and labelling system	2
Erion Textiles		X				PRO	waste managers	support in identification of gaps and needs of textile collection, sorting and classification	2
Pellenc						technology provider	in partnership with Andritz they developed the first automated sorting system for textile waste, combining identification and recycling . They are the provider of automatic sorting station and optical sensors	they can provide technological support to the definition of gaps and needs in automated sorting for recycling	1
UNEP's 'Circularity and Used Textile Trade' Project		x				NGO association	UNEP is the environment programme of the UN and with this project it aims to identify key policy, financing, investment and regulatory priorities for trade and policy reforms and financing options, which enable the transition toward a sustaibable and circular textile value chain.	they can support in identification od gaps and needs regarding criteria to differentiate between used textiles and textiles waste to create economic value and promote an inclusive social development, in harmony with the environment.	2
POLIMI (mechanical department)			X		X	University Competence center	knowledge in composition identification systems and involved in project related to waste collection, classification and recycling	they can provide support in identification of gaps and needs in technological solutions for composition identification	3
ENEA					x	University Competence center	they participated to the EU project TRICK and they developed traceability system based on blockchain by acting on the data collection part	they can be involved in gaps identification in data acquisition for labelling	3

Stakeholder	Fashion / carpet	Classifi-cation	Compo-sition	Sor-ting	Label-ling	Category	Brief description	Potential contribution	Priori ty
MADE			x	x		University Competence center	supply chain optimization through the use of advanced technologies and robotics	gaps and needs identification in sorting and composition identification, for example in tasks like disassembling	3
VIAVI solutions			X			technology provider	technology provider, they develop optical sensors and optical coatings also for quality control or NIR analysis	identification of possible solutions to technological gaps (NIR detectors)	3
STEM				X		technology provider	expert in design and construction of logistic systems and automated sorting systems	technology scouting and benchmark for the identification of gaps and needs and case studies related to the automated sorting	3
GFM-NET					X	technology provider	IT experts, they provide services in fields like AI, Cybersecurity, IoT, Big data and Analytics	they can provide technical support to the gaps and needs identification in the data acquisition and data analysis related to traceability of waste and labelling	2
SOEX		X	X	X	X	waste managers sorters	German textile recycler with sorting plant and facilities for recycling	as Texaid and Eurotex it is one of the big sorter and recycler in Europe, managing collection, sorting, composition identification of textile waste	1
SISNIR (Società Italiana Spettroscopia NIR)		X	X			University Competence center	society of NIR experts, mainly from academic background, they have scientific competencies in multidisciplinary topics	they can provide support in identification of solutions and methodology, as well as updated state of the art at research level	3
eBIZ and eBIZ-TFC		x			x	research project	eBIZ is an initiative started with the eBIZ-TCF project, in January 2008, to boost e-business processes in Textile & Clothing and Footwear industries. it aims to standardize digital language, together with developing	with their Reference Architecture they can provide a Guide supporting the development of traceability and labelling systems	2

Stakeholder	Fashion / carpet	Classifi-cation	Compo-sition	Sor-ting	Label-ling	Category	Brief description	Potential contribution	Priori ty
							synergies with RFID technologies (https://ebiz-tcf.eu/)		
Van Dijk containers		x				carpet recycler	They recycle carpet in the Netherlands	can provide practical information from the recyclers point of view	3
wastex			x	x			textile identification software and hardware, for reuse and recycling	info about technology for composition identification and sorting for recycling	3
SYSAV (Sweden)			x	x		waste managers	The SYSAV waste-to-energy plant is the most energy efficient plant in Sweden, as well as being one of the most advanced plants in the world.	they can provide info about sorting for recycling	3
Innovando		x	x	x			waste management, innovative services dedicated to manufacturers for waste collection, treatment, recycling	provide info about best practices	3

ANNEX IV – STAKEHOLDER ANALYSIS 5R

Status June 2025

Stakeholder	Fashion/ carpet	Brief description	Potential contribution	Priority
CLOOV	Fashion	A Milan-based tech company offering software solutions that enable fashion brands to integrate resale, rental, and repair services into their core business, promoting circularity in fashion.	5r business models and good practices	1
Mended	Fashion	A social impact brand based in Dallas, Texas, empowering survivors of modern-day slavery through the creation of hand block-printed textiles for home goods.	5r business models and good practices	1
Repair Rebels	Fashion	An online platform connecting digital fashion consumers with local clothing and shoe repair services, aiming to make fashion repairs as convenient and enjoyable as purchasing new items	5r business models and good practices	1
Save your Wardrobe	Fashion	A London-based tech platform offering aftercare services and a digital wardrobe to support a closed-loop fashion system, reducing waste and extending the life of garments.	5r business models and good practices	1
Decathlon	Fashion	A French sporting goods retailer, recognized as the world's largest in its sector, with over 2,000 stores globally, offering high-performance products at accessible prices	info about their 5r business model	
Studio Anneloes	Fashion	A Dutch fashion brand catering to ambitious women, focusing on creating comfortable and stylish clothing that empowers women in their daily lives.	info about their 5r business model	
Cibutex	Fashion	A cooperative established in 2022, uniting textile service companies to promote circularity in business textiles by recycling and upcycling post-consumer textile waste.	5r business models and good practices	
Boer	Fashion	A family-run company with over 100 years of experience in textile recycling, emphasizing traditional values and sustainability in their operations	info about their 5r business model	
Recover Textile Systems S.L.	Fashion	A Spanish company specializing in transforming textile waste into high-quality recycled fibers, aiming to close the loop in fashion through sustainable solutions.		
Levi's	Fashion	An iconic American apparel company, globally recognized for its denim products, with a commitment to sustainability and innovation in the fashion industry	info about their 5r business model	
Kathmandu	Fashion	A New Zealand-based company specializing in outdoor clothing and equipment, dedicated to improving well-being through outdoor experiences.	info about their 5r business model	
Patagonia	Fashion	An American retailer known for its outdoor clothing and gear, with a strong emphasis on environmental activism and sustainable business practices.	info about their 5r business model	

Stakeholder	Fashion/ carpet	Brief description	Potential contribution	Priority
Grassi Spa	Fashion	Technical garments producer		
D-House	Fashion	An experimental architecture and design practice established in 2010, aiming to simplify complex design concepts through innovative solutions.		
Oxfam	Fashion	A global movement of people working together to end the injustice of poverty, providing aid and advocating for sustainable solutions		
Humana	Fashion	An international organization focused on social development and environmental protection, operating second-hand clothing programs to fund community initiatives.	info about their 5r business model (second hand)	1
Cormatex	Fashion	Italian manufacturer (from Prato) of textile machinery, specializing in carded spinning and nonwoven technologies, offering custom solutions	info about technologies and machineries for fiber regeneration and nonwoven production from textile waste.	3
Dell'Orco e Villani	Fashion	Family-owned company (since 1964) based in Prato producing machinery for recycling textile waste, including post-consumer garments and industrial scraps.	Info about technology and Equipment for tearing and recovering fibers from post-consumer and industrial waste.	2
Ommi	Fashion	Based in Prato, producing machinery for recycling textile waste, including post-consumer garments and industrial scraps.	Fiber processing systems that improve material efficiency and extend fiber life.	2
Technoplants	Fashion	Based in Prato, Provides complete lines for nonwoven production, from design and engineering to full-scale implementation.	info about technologies and machineries for fiber regeneration and nonwoven production from textile waste.	3
Caritas Lugano	Fashion	NGO offering social assistance and reintegration services in the Italian-speaking region of Switzerland.	info about their 5r business model (second hand)	1
Valvan	Fashion	Develops machinery for baling and sorting textiles, with automated solutions for textile recycling and waste management.	info about sorting technologies, limits and opportunities	3
Tomra	Fashion	Global leader in sensor-based sorting technologies for waste, metals, and textiles, enhancing resource recovery efficiency.	info about sorting technologies, limits and opportunities	3
CETI	Fashion	(Centre Européen des Textiles Innovants) *(Tourcoing, France)* Applied research center for textile innovation, focused on sustainable and smart materials.	innovative recycling processes and circular textile materials.	2
CITEVE	Fashion	Portuguese textile and clothing technology center, promoting innovation and circularity.	innovative recycling processes and circular textile materials.	2
RISE	Fashion	National research center advancing circular solutions and bio-based materials in textiles.	innovative recycling processes and circular textile materials.	2
Recyc'elite	Fashion	Specializes in textile recycling and sustainable solutions for the fashion and textile industry.	Info about technologies for chemical recycling	2
Axel One	Fashion	French collaborative innovation platform focused on advanced materials and sustainable chemistry processes.	eco-design, advanced materials and cleaner chemical processes.	2
Clutex	Fashion	Technical textile cluster fostering collaboration between SMEs, academia, and R&D. (Liberec, Czech Republic)	overview and info from CZ textile companies	2
Techtera	Fashion	Textile innovation cluster supporting R&D and competitiveness of European textile companies.	overview and info from France textile companies	2

Stakeholder	Fashion/ carpet	Brief description	Potential contribution	Priority
ALIA	Fashion	Public utility managing waste collection and environmental services in Tuscany. (Lyon, France)	Info about textile waste collection	1
AIMAG	Fashion	Multi-utility operating in waste, water, and energy management with a sustainability focus.	Info about textile waste collection	1
CAUTO	Fashion	Social cooperative offering environmental services and inclusive employment models. (Brescia, Italy)	Info about textile waste collection	1
Ecologia Italiana	Fashion	ECOLOGIA ITALIANA SRL operates in the ecological services sector, with a focus on the collection and preparation for recycling of non-hazardous waste.	Info about textile waste collection	1
Corertex	Fashion	Corertex Consortium for textile reuse and recycling clothing	Info about textile waste collection	1
Goritex	Fashion	based in Prato, sorter of high quality materials for recycling (wool and cashmere)	Information on current processing methods with secondary raw material	1
Sfilacciatura Goti	Fashion	Italian company focused on textile shredding and fiber recovery for recycling applications.	Info about shredding process	1
Filati Omega	Fashion	Based in Prato, Manufacturer of high-quality yarns for a wide range of textile applications (carding process)	Info about spinning technologies	2
Progetto Lana	Fashion	Progetto Lana S.r.l. specialises in the recovery and ennobling of by-products, i.e. all waste materials generated in the various processing stages of the textile supply chain (from combing to packaging).	info about textile secondary raw materials	1
Manifattura Maiano	Fashion	Produces technical fabrics and nonwovens for industrial applications also with recyled materials; based in Prato	secondary raw materials application	3
Prato TNT	Fashion	Manufacturer of nonwoven fabrics for various sectors, including medical and automotive.	secondary raw materials application	3
Filatura del Vincio	Fashion	Textile spinning company producing natural and synthetic fiber yarns (mainly regenerated), with a focus on sustainability.	Info about spinning technologies	2
Fil3	Fashion	Textile spinning company producing natural and synthetic fiber yarns (mainly regenerated), with a focus on sustainability.	Info about spinning technologies	2
Ensait	Fashion	ENSAIT is a textile engineering school that trains almost 400 engineers each year who will become the textile players of tomorrow: technical textiles, advanced materials, distribution, fashion and luxury.		3
RIFò	Fashion	Producer and retailer of recycled carded wool products	info about recycled products	1
reFashion	Fashion	French PRO	Info about 5Rs business models	1
ADIDAS	Fashion	Sportswear brand	info about 5rs business models	1
TRAFI CREATIVà TESSILE	Fashion	Producer of textile products based on recylced materials	info about recycling technologies	2
Living Lab Carpet	Carpet	Flemish project on R-strategies for carpet (not recycling)	Possibilities for reuse etc. of carpets	1

ANNEX V – STAKEHOLDER ANALYSIS EPR

Status June 2025

Stakeholder	Fashion/ carpet	Category	Brief description	Potential contribution	Priority
ECRA	Carpet	association	association of all carpet producers - position paper on EPR	Sector view on EPR	1
Radici	Carpet	manufacturer	carpet producer with focus on sustainability	View from producers side (Italy)	2
Alma	Carpet	manufacturer	carpet producer with focus on sustainability	View from producers side (Italy)	2
Ellenmacarthur	Carpet	ngo	Foundation on circular economy	overall view on EPR	3
Partners for innovation	Carpet	Project	coordinator of the Dutch project 'circulaire vloerbekleding' https://partnersforinnovation.com/nl/projects/ketendoorbraakproject-voor-circulaire-vloerbedekking4873-2/	focus of this project is to set up an EPR for carpet	1
Erasmus school	Carpet	education/ research	transformative research and education on just sustainable fashion transition		3
Object carpet	Carpet	manufacturer	Owner of the Niaga technology: monomaterial carpet and carpet with separation layer	view on EPR due their activities in the field of eco-designed carpet	1
Belysse	Carpet	manufacturer	Producer of carpet tiles - a lot of sustainability activities	View from producers side (Belgium)	2
Balta	Carpet	manufacturer	Producer of carpet - a lot of sustainability activities, also recycling pre-consumer	View from producers side (Belgium)	2
Living Lab carpet	Carpet	research institute	Flemish project on reuse, remanufacturing of carpets	in this project EPR is also discussed	2
EDEL carpets	Carpet	manufacturer	carpet producer with focus on sustainability	View from producers side (The Netherlands)	1
Tarkett	Carpet	manufacturer	carpet producer with focus on sustainability	Take back system/recycling program ReStart in place	1
Van Dijk containers	Carpet	recycler	They recycle carpet in the Netherlands	can provide practical information from the recyclers point of view	1
Municipal waste Europe	Carpet	association	representing public responsibility for waste - municipalities	position paper on EPR	
Aquafil	Carpet	recycler	chemical recycling of carpet	view from recyclers point	
Re-viste	Fashion	PRO	Spanish PRO for textile waste	input on EPR	1
Eunomia	Fashion	research / consulting	focus on circular economy	Did study on EPR on textiles for the UK	1

Stakeholder	Fashion/ carpet	Category	Brief description	Potential contribution	Priority
Municipal waste Europe	Fashion	association	representing public responsibility for waste - municipalities	position paper on EPR	1
RReuse	Fashion	network	network social enterprises	position paper on EPR	1
ADEME	Fashion	public agency (France)	input on national and local policies for ecological transition, has EPR sectors supervision directorate		
OECD environment	Fashion	forum	joining stakeholders to set international standards	shaping policies	2
Landbell group	Fashion	PRO	PRO - setting EPR for textiles	input from PRO view	1
CISUTAC	Fashion	EU project	EU project on recycling of fashion and workwear	postion paper on EPR	2
Stichting UPV	Fashion	PRO	Organisation working on setting EPR in the Netherlands	organisation founded by MODINT	3
Recover	Fashion	recycler	recycler of cotton in Spain	view point mechanical recycler	1
Decathlon	Fashion	manufacturer	French manufacturer of sport goods	focus on sustainability	1
Boer Group	Fashion	recycler/sorter/ collecting	sorter of textile and mechanically recycling of cotton (Frankenhuis)	stakeholder view	1
Rester Oy	Fashion	recycler	Finnish industrial scale recycling company, closed-loop business models for textile waste streams	recycler view	1
Humana	Fashion	collection/sorter	Spanish sorter of textile	sorter view	1
Vesti Solidale	Fashion	sorter	Italian sorter of textile	sorter view	1
Oniverse	Fashion	manufacturer	Italian company behind brand like calzedonia, intimissini etc.	manufacturer's view	1
Pattern group	Fashion	manufacturer	leading Italian company in luxury menswear and outerwear prototyping and engineering up to production (5 hubs)	manufacturer's view	1
OVS	Fashion	manufacturer	Italian clothing brand	manufacturer's view	1
H&M	Fashion	manufacturer	Swedish fashion brand	manufacturer's view	1
Kiabi	Fashion	manufacturer	French distribution group for clothing	manufacturer's view	1
Teddy	Fashion	manufacturer		manufacturer's view	1
Cisalfa	Fashion	manufacturer	Italian sport brand (cfr decathlon)	manufacturer's view	1
Inditex	Fashion	manufacturer	Spanish company behind Zara, Berschka tec.	manufacturer's view	1
Re_Fashion	Fashion	PRO	Textile, Household linen and Footwear Industry's eco-organisation. It manages the prevention of waste and management of the end-of-service life of products on behalf of the 5000 companies placing goods onto the market	PRO view	1
PRO Ungheria	Fashion	PRO	National PRO		1
PRO Belgium	Fashion	PRO	National PRO	PRO view	1

Stakeholder	Fashion/ carpet	Category	Brief description	Potential contribution	Priority
PRO Germany	Fashion	PRO	National PRO	PRO view	1
PRO Poland	Fashion	PRO	National PRO	PRO view	1
PRO UK	Fashion	PRO	National PRO	PRO view	1
Erion	Fashion	PRO	Erion is an Italian multi-compliance non-profit System for the management of different types of waste: from electronic products to batteries, from packaging to tobacco products and textiles		1
Cobat tessile	Fashion	PRO	Italian voluntary association for the collection, treatment and recovery of end-of-life textile products.	PRO view	1
Redress Italia	Fashion	PRO	Reconomy, the international circular economy specialist, has launched a tech-enabled, international service to help businesses comply with EPR regulations	PRO view	1
Cisutac	Fashion	project	EU project on circular and sustainable textile	paper on EPR	1
Denuo	Fashion	collection/sorting/recycling	Belgian federation for the waste and recycling sector	position paper on EPR fashion textile	1
Recydata	Fashion	PRO-related	offers services to and helps to set up PRO organisations	practical view on PRO	1
Confindustria Toscana Nord	Fashion	association			2
Green Line	Fashion	recycler/sorter/collecting	deals with the collection and recycling of textile waste, the marketing of textile raw materials, fabric and yarn stocks, and industrial scrap.	recycler view	1
EuRIC	Fashion	association	association reuse and recycling operators - EuRIC Textiles aims at promoting the collective interests of the European textile recycling and re-use industries. The branch evaluates and provides input on the implementation of the EU's textiles strategy such as the development of appropriate eco-design criteria for textiles including mandatory recycled content targets and the development of end-of-waste criteria for textiles. As the re-use and recycling of textiles became a greater priority at European level, EuRIC Textiles was established in 2019 to provide a voice for the industry	view from reuse and recycling	1
TRA	Fashion	assocation	The Textile Recycling Association is the UK's trade association for collectors, processors, graders, exporters of used clothing, textiles & wiping cloths.	Overall recycler view	1
Trustex	Fashion	project	sister project Circula-tex		1
KCG college of technology	Fashion	academic	school of fashion technology, book on sustainable apparel retailing	overall view	2
ETRA	Fashion	association	European tyre recycling association	cross-sectorial view	3
Cauto	Fashion	cooperative	It is a social cooperative for work placement founded in Brescia in 1995 to combine social and environmental action. The activities and services offered by the cooperative in the environmental sphere allow the reduction of waste, and consumption and support paths		2

Stakeholder	Fashion/ carpet	Category	Brief description	Potential contribution	Priority
			of innovation and cooperation for the creative recovery and enhancement of human and natural resources - no textile		
SOEX	Fashion	recycler/sorter/collecting	high-quality collection services for used textiles, state of the art sorting methods for the collected goods, global marketing and used clothing trade, processing of unwearable used textiles into secondary raw materials, trading and recycling innovation.	view from reuse and recycling	1
Magnolab	Fashion	network	Italian network of textile companies		2
DBT fibre	Fashion	manufacturer	DBT Fibre is an Italian company, a leader in the production of sliver and tops for spinners, but also fibres and effect for wool industry and any other application that needs textile material. Based in Cerrione (Biella), it specializes in processing both natural and synthetic fibers for classic and fancy yarns		2

ANNEX VI – TEMPLATE STAKEHOLDER INTERVIEWS

circula·tex Stakeholder interview

Company name interviewee	
Name(s) interviewee(s)	
Date	
Circula-Tex main contact	
Interviewer(s)	
Location meeting	Online / On site (specify where)

Minutes of meeting

xxx

Action points (if applicable)

- Xxx

Shared documents