The Digital Product Passport (DPP)

Implications and Practical Guidance for the Battery Industry

DG GROW – European Commission

27 May 2026

Welcome & Housekeeping

Rules for Participants

- **Microphones are muted by default.**
  Participants should remain muted unless invited to speak.
- **Asking Questions:**
  - After each session slot, there will be 10 minutes dedicated to questions relevant to that section.
  - Participants are invited to raise their hand; the moderator will give the floor in order of request (priority-based).
  - Alternatively, questions can be submitted via the Q&A chat and may be addressed at the end of the session during the dedicated live Q&A.
  - Not all questions may be answered live due to time constraints; unanswered questions will be addressed later.
- **Message Guidelines:**
  - Keep messages concise and relevant.
  - Use the chat only for technical issues (audio, access, connection).
  - Use the Q&A for content-related questions.
- **Permissions:**
  - Participants can view the session and use the chat and Q&A features.
- **Recording Notice:**
  - The session will be recorded. By joining, participants agree to the recording and to the use of their image and voice for documentation purposes.

Agenda

09:15 – 09:30 **Opening Remarks**

Ms Stefka DZHUMALIEVA, Head of Unit, Single Market Implementation Tools

09:30 – 09:45 **Digital Product Passport: Recent Developments and Upcoming Implementation Milestones** (Focus: Batteries Business Case)

Mr Alexandru ION, Digital Product Passport Team Leader

09:45 – 10:30 **Updates on Data Requirements and Interoperability**

Mr Ewout DEURWAARDER, Policy Officer Sustainable Products

10:30 – 11:00 **State of Play: Industry Readiness**

Mr Alexandru ION, Digital Product Passport Team Leader

11:00 – 11:30 **Case Studies and Practical Examples**

Mr Hanno FOCKEN, Managing Director – Operations, Governance & Scaling

Catena-X Automotive Network e.V.

11:30 – 12:30 **Live Q&A**

Panel discussion and audience questions

12:30 – 12:45 **Closing Remarks and Conclusion**

European Commission

1 *Opening Remarks*

Ms Stefka DZHUMALIEVA
Head of Unit, Single Market Implementation Tools

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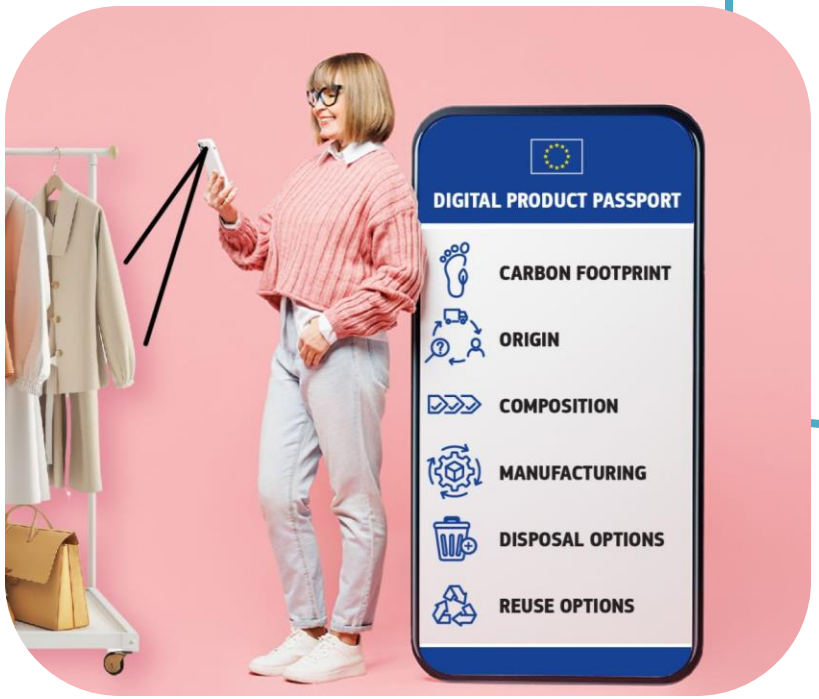
2 *Digital Product Passport – Recent Developments*

Mr Alexandru ION

European Commission

Digital Product Passport



A **Digital Product Passport (DPP)** is a digital container of product specific information.

It serves as a digital identity for the product, enabling traceability and transparency throughout its value chain.

How does it work?

DPP is accessible via a **data carrier** and supported by **technical systems** (web-portal; registry).

DPP data is product-group specific (toys, textiles, detergents etc.) and defined through **secondary legislation** processes.

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ESPR Legal framework

- DPP's original legal basis can be found in the **Ecodesign for Sustainable Products Regulation (ESPR)**.
- It will be **complemented through product specific delegated acts** (*textiles, iron & steel and aluminium, tyres, furniture...).*
- **Other EU Regulations/Directives** may include DPP provisions.

Batteries' Passport Legal framework

- The battery passport will be implemented at **item level** and will have a **unique identifier attributed to it by the responsible economic operator**.
- The batteries passports **do not need to be provided in the electronic customs declarations**.
- **DPP service providers are not actors** involved in the batteries' passports, instead there is an option for an economic operator to give **written authorisation to other actors to act on its behalf**.
- The battery passport **shall cease to exist after the battery has been recycled**.

DPP secondary legislation

The DPP secondary legislation, which aims to complete the operational framework of the DPP, is planned for **adoption by mid-2026** and includes the following:

1. An **implementing act** setting up requirements for the Central Registry;
2. A **delegated act** setting out the requirements for DPP service providers, as well as a certification scheme to verify their compliance with such requirements where appropriate;
3. An **implementing act** setting out procedures to issue and verify the digital credentials of economic operators and other relevant actors;
4. A **delegated act** establishing rules & procedures on the life cycle management of unique identifiers & data carriers.

Economic Operators
collect/gather information related to their product to create the DPP

The product's unique identifiers are created and the DPP is registered in the DPP Registry

DPP Registry

Decentralised Storage
DPP CONTENT

The full DPP data is stored with the Economic Operators or Authorised Operators

Once the DPP exists and is registered in the DPP Registry, the product can be placed on the market

DPP Web Portal

The Commission's web portal allows stakeholders to find links to DPPs, with access determined by their specific permissions.

Market Authorities can search the DPP and check whether the information is correct and compliant

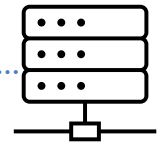
The data carrier links to the DPP product information and **consumers** can make a purchasing decision

Recyclers and Repairers can search the DPP information via a data carrier

European Commission

Market Authorities open an investigation case (e.g. for a toy) in **ICSMS** with a **Unique Product Identifier (UPI)**

UPI



ICSMS

ICSMS and DPP Registry are interoperable

DPP Registry

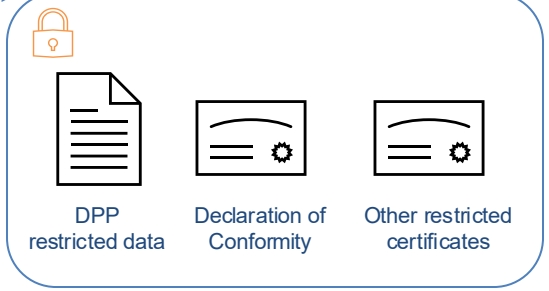
Register

Access

Economic Operators register required DPP data and make it available

Unique Product Identifier

DPP public data

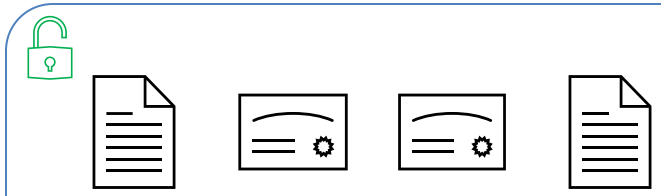


DPP restricted data

Declaration of Conformity

Other restricted certificates

Market Authorities can access the DPP public data by default. The **assigned investigator** has access to **restricted product data** through the ICSMS – DPP Registry interconnection.



DPP public and restricted data

Declaration of Conformity

Other restricted certificates

DPP Registry information

The registry ensures **high quality data** upon registration through **semantic completeness and reference lists**

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DPP Standardisation - overview

- Eight harmonised standards are being developed in close collaboration with JTC24, the **CEN-CENELEC Joint Technical Committee** on the Digital Product Passport.
- 6 standards (*unique identifiers, interoperability, data carrier, API, data exchange protocols* and *data storage)* are in the final phase of formal approval by CEN/CENELEC, estimated date of publication is April/May.
- Two standards (authentication and access rights management) will be published later.
- The DPP system will be further developed in JTC24 in the future

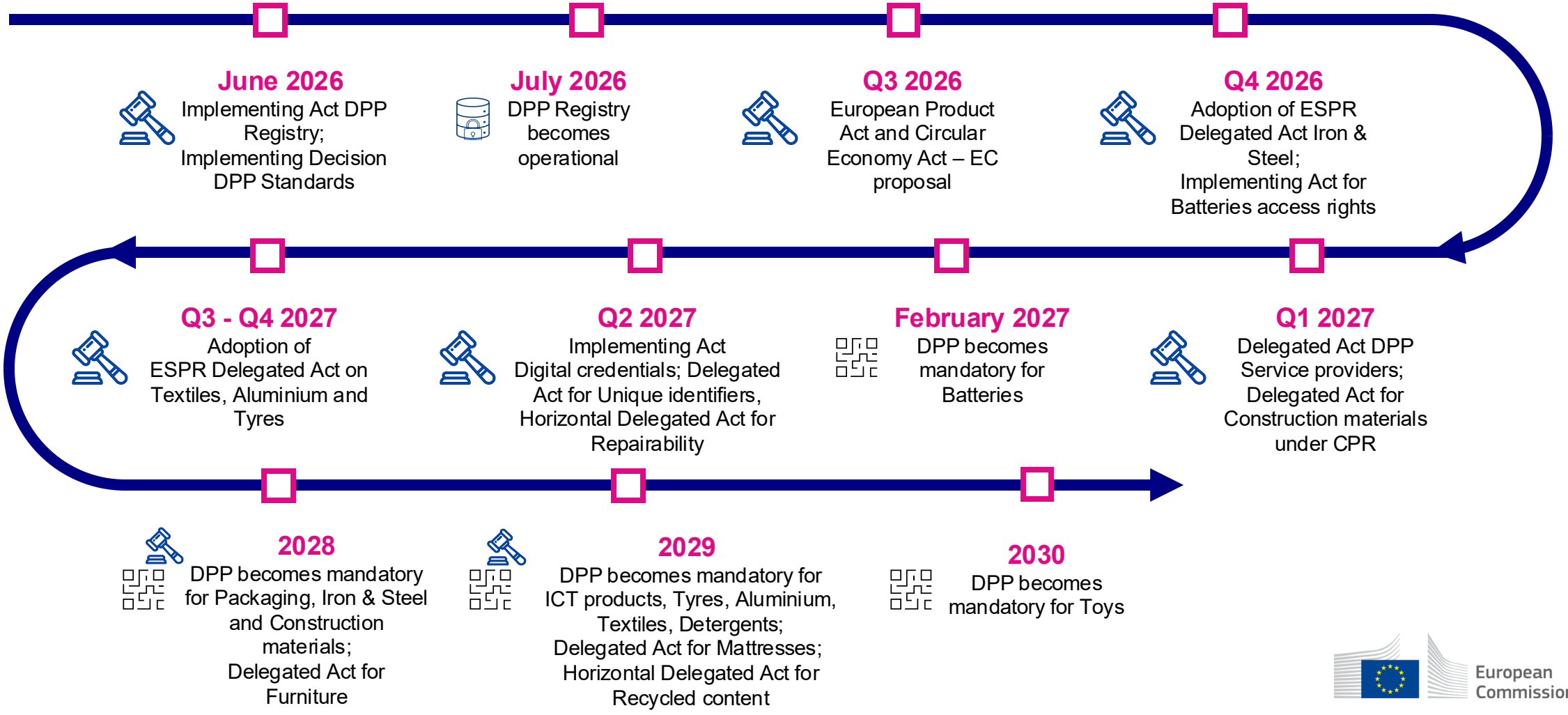
Thank you to all the technical experts, the convenors of the working groups and the chairs for the exceptional fast delivery.

European Commission

DPP Standardisation - International

- Global interest in European standardisation is growing, with **multiple countries actively** engaging in the process.
- Ensuring **interoperability across supply chains** remains a fundamental objective for effective implementation. The JTC5 at ISO level which will start its operations in September 2026 is an important step in this direction.
- The European Commission is proactively **monitoring and contributing** to international standardisation developments.

Timeline



European Commission

Let's test it!

https://app.sli.do/event/3gwZ49Ro3PGvkySun8BkNy

European Commission

3 *Data Requirements & Interoperability*

Mr Ewout DEURWAARDER

European Commission

Recent Developments and Upcoming Implementation

Access to the passport

Standards for QR code and unique identifier are in Article 77(3)

-**to be updated** to EN 18219 and 18220 this year through delegated act

-currently referenced standards still fine to be used (‘equivalent’)

Access to restricted parts:

-Working document for **implementing act** circulated to stakeholders for a meeting of the Battery expert group on 29 April

-Draft implementing act to be published on ‘have your say’ and for WTO/TBT consultation in the coming months

Battery passport implementing act

Article 77(9)

Concerns the information in points 2 and 4 of Annex XIII

Implementing act:

- specifying which persons are to be considered persons with a legitimate interest

-to which information listed in those points they shall have access

-and to what extent they can download, share, publish and re-use that information

Working document for implementing act

Main considerations:

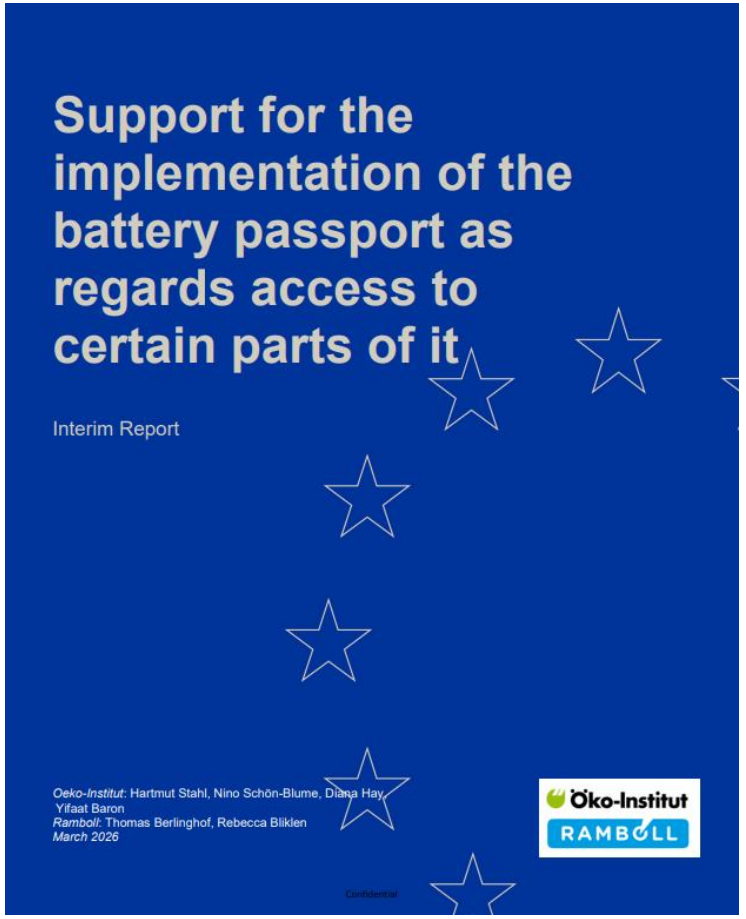
Use study as basis (different access for different information)

Careful with (potentially) commercially sensitive data

Keep it (relatively) simple

Limited sharing and no publication

Actor
Battery repair operator
Battery repurposing operator
Battery remanufacturing operator
Battery treatment operator
Battery recycler



Actor
Battery repair operator
Battery repurposing operator
Battery remanufacturing operator
ATF
WEEE pre-treatment operator
Battery treatment operator
Battery recycler
Battery diagnostics service provider
Certified vehicle workshops
WEEE repair shops

European Commission

Updates on Data Requirements

Who enters data?

Responsibility for the passport lies with:

‘economic operator placing the battery on the market’

is normally either EU manufacturer or the importer

But may give written authorisation to any other operator to act on its behalf

Note:

when remanufactured, repurposed etc., new passport with a new operator taking responsibility

when becomes waste, responsibility goes to the ‘producer’, the producer responsibility organisation or the selected waste management operator

Content of the passport

No role for the Commission to further specify, but useful projects that may help:

- Battery Pass project
- DIN DKE SPEC 99100
- CEN (TC 301) draft Technical Specification
- ..

Commission can amend the annex, but only based on ‘scientific and technical progress’

ANNEX XIII

INFORMATION TO BE INCLUDED IN THE BATTERY PASSPORT

1. PUBLICLY ACCESSIBLE INFORMATION RELATING TO THE BATTERY MODEL

A battery passport shall include the following information relating to the battery model, which shall be accessible to the public:

(a) the information specified in Part A of Annex VI;

(b) the material composition of the battery, including its chemistry, hazardous substances present in the battery, other than mercury, cadmium or lead, and critical raw materials present in the battery;

(c) the carbon footprint information referred to in Article 7(1) and (2);

(d) information on responsible sourcing as indicated in the report on battery due diligence policy referred to in Article 52(3);

(e) recycled content information as contained in the documentation referred to in Article 8(1);

(f) the share of renewable content;

(g) rated capacity (in Ah);

(h) minimal, nominal and maximum voltage, with temperature ranges when relevant;

(i) original power capability (in Watts) and limits, with temperature range when relevant;

(j) expected battery lifetime expressed in cycles, and reference test used;

(k) capacity threshold for exhaustion (only for electric vehicle batteries);

(l) temperature range the battery can withstand when not in use (reference test);

(m) period for which the commercial warranty for the calendar life applies;

(n) initial round trip energy efficiency and at 50 % of cycle-life;

(o) internal battery cell and pack resistance;

(p) c-rate of relevant cycle-life test.

(q) the marking requirements laid down in Article 13(3) and (4);

(r) the EU declaration of conformity referred to in Article 18;

(s) the information regarding the prevention and management of waste batteries laid down in Article 74(1), points (a) to (f).

2. INFORMATION RELATING TO THE BATTERY MODEL ACCESSIBLE ONLY TO PERSONS WITH A LEGITIMATE INTEREST AND THE COMMISSION

A battery passport shall include the following information relating to the battery model, which shall be accessible only to persons with a legitimate interest and the Commission:

(a) detailed composition, including materials used in the cathode, anode and electrolyte;

(b) part numbers for components and contact details of sources for replacement spares;

(c) dismantling information, including at least:

— exploded diagrams of the battery system/pack showing the location of battery cells,

— disassembly sequences,

— type and number of fastening techniques to be unlocked,

— tools required for disassembly,

— warnings if risk of damaging parts exist,

— amount of cells used and layout;

(d) safety measures.

3. INFORMATION ACCESSIBLE ONLY TO NOTIFIED BODIES, MARKET SURVEILLANCE AUTHORITIES AND THE COMMISSION

A battery passport shall include the following information relating to the battery model, which shall be accessible only to notified bodies, market surveillance authorities and the Commission:

— results of test reports proving compliance with the requirements laid down in this Regulation or any delegated or implementing act adopted pursuant to this Regulation.

4. INFORMATION AND DATA RELATING TO AN INDIVIDUAL BATTERY ACCESSIBLE ONLY TO PERSONS WITH A LEGITIMATE INTEREST

A battery passport shall include the following specific information and data relating to an individual battery, which shall be accessible only to persons with a legitimate interest:

(a) the values for performance and durability parameters referred to in Article 10(1), when the battery is placed on the market and when it is subject to changes in its status;

(b) information on the state of health of the battery pursuant to Article 14;

(c) information on the status of the battery, defined as ‘original’, ‘repurposed’, ‘re-used’, ‘remanufactured’ or ‘waste’;

(d) information and data resulting from its use, including the number of charging and discharging cycles and negative events, such as accidents, as well as periodically recorded information on the operating environmental conditions, including temperature, and on the state of charge.

Some fields will be empty..

.. **temporarily**, because they **cross-reference** to a provision of the Regulation that does not yet apply

.. **or permanently for certain (sub)categories** of batteries, because

-the cross-referenced provision will not apply to them

-the technical parameter is not relevant to them

Key cross-referenced provisions

(c) the carbon footprint information referred to in Article 7(1) and (2);

(d) information on responsible sourcing as indicated in the report on battery due diligence policy referred to in Article 52(3);

(e) recycled content information as contained in the documentation referred to in Article 8(1);

Apply once the obligations in Article 7 / 8 become applicable
The due diligence report has to be included by the latest August 2028
Differences in scope between passport and those Articles:

- If the battery does not include the materials referred to in Annex X and/or Article 8, then (d) and/or (e) will remain empty
- If the battery has external storage only, (e) remains empty
- If the battery is non-rechargeable, (c) remains empty

Data only to be included once

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(a) the information specified in Part A of Annex VI;

(b) the material composition of the battery, including its chemistry, hazardous substances present in the battery, other than mercury, cadmium or lead, and critical raw materials present in the battery;

Everything in '(b)' is also in '(a)'

N.B. Annex VI referred to in '(a)' is being amended to adapt 'hazardous substances' (in the 'environmental omnibus'). '(b)' may be amended as well.

Exploit synergies

(r) the EU declaration of conformity referred to in Article 18;

(s) the information regarding the prevention and management of waste batteries laid down in Article 74(1), points (a) to (f).

- Information in the declaration of conformity can be used to fill in a few other data fields (e.g. manufacturer name, address, model number)
- Information on point (s) could be included as weblink(s) to the online platform(s) as referred to in point (a) of the 2nd subparagraph of Article 74

Technical parameters

(f) the share of renewable content;

Recital 123: “such as material produced from lignin to substitute graphite”

(g) rated capacity (in Ah);

Already included in 1(a)

(h) minimal, nominal and maximum voltage, with temperature ranges when relevant;

(i) original power capability (in Watts) and limits, with temperature range when relevant;

(j) expected battery lifetime expressed in cycles, and reference test used;

(k) capacity threshold for exhaustion (only for electric vehicle batteries);

(l) temperature range the battery can withstand when not in use (reference test);

(m) period for which the commercial warranty for the calendar life applies;

If there is such warranty

(n) initial round trip energy efficiency and at 50 % of cycle-life;

Not applicable to back-up batteries

(o) internal battery cell and pack resistance;

(p) c-rate of relevant cycle-life test.

Pay attention to the corrigendum

Official Journal
of the European Union

EN

L series

2026/90285

10.4.2026

Corrigendum to Regulation (EU) 2023/1542 of the European Parliament and of the Council of 12 July 2023 concerning batteries and waste batteries, amending Directive 2008/98/EC and Regulation (EU) 2019/1020 and repealing Directive 2006/66/EC

(*Official Journal of the European Union L 191 of 28 July 2023*)

On page 108, Annex XIII, point 1(q):

for: ‘(q) the marking requirements laid down in Article 13(3) and (4);’,

read: ‘(q) the marking requirements laid down in Article 13(4) and (5);’.

European Commission

New addition

New point (t) being added by the digitalisation part of 'Omnibus IV' to digitalise providing information even further:

'(t) 'clear, understandable and readable instructions for use in a format that makes it possible to print, download and save them on an electronic device so that the user can access them at all times, in particular during a breakdown of the battery (only for stationary battery energy storage systems).' (proposal 24

Dynamic data

On (a) ‘the values for performance and durability parameters referred to in Article 10(1)’:

Scope of Article 10 is narrower, so **point 4(a) only applies to rechargeable batteries**

On (b) ‘information on the state of health of the battery pursuant to Article 14’:

Scope of Article 14 is narrower, so **point 4(b) only applies to**:

stationary battery energy storage systems, LMT batteries and electric vehicle batteries

and only if they have a battery management system

Only information on the state of health required, not other information referred to in Article 14 (expected lifetime).

Frequency of updating dynamic data

No role for the Commission to further specify. Regulation provides the frequency or an indication of it:

- For (a) and (c) **performance & durability parameters** and change in status: *when subject to **change in status***
- For (b) **state of health** pursuant to Article 14: ***daily** and more frequently where that is required for a specific purpose* (recital 46, **not legally binding**: lower frequency possible e.g. when accuracy of measurement implies no difference with previous day, disproportionate, ..)
- For (d) **information and data resulting from its use: *periodically*** (indicated for part of the information)

Summery per battery category

EV batteries: everything applicable (carbon footprint, recycled content, due diligence later)
LMT batteries: same, except for ‘1(k) capacity threshold for exhaustion’
Industrial batteries, depends:

- are not stationary energy storage or do not have a BMS (Article 14 not applicable)
- are back up batteries (some technical parameters not applicable)
- are non-rechargeable (Articles 7 and 10 not applicable)
- have only external storage (Article 8 not applicable)
- contains no materials mentioned in Article 8 (thus not applicable)
- contains no materials listed in Annex X (due diligence not applicable)

Next step on data requirements

Develop a public semantic rulebook
On the basis of the content of this presenation
Refinements possible
Feedback welcome

4 *Case Studies & Practical Examples*

Mr Hanno FOCKEN
Catena-X Automotive Network e.V.

European Commission

Battery Passport: Case Studies and Practical Examples

27th May 2026

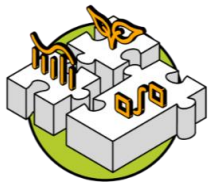
Catena-X at a Glance

Non-profit association driving sovereign, decentralized data exchange across the automotive supply chain

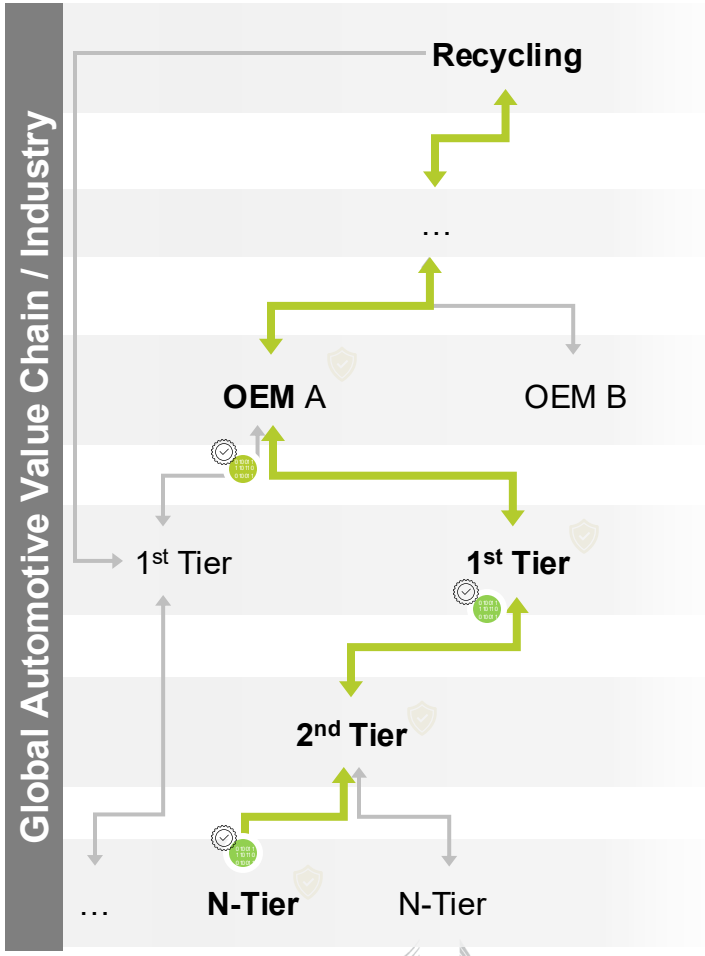
Standardized governance framework

Verified participants

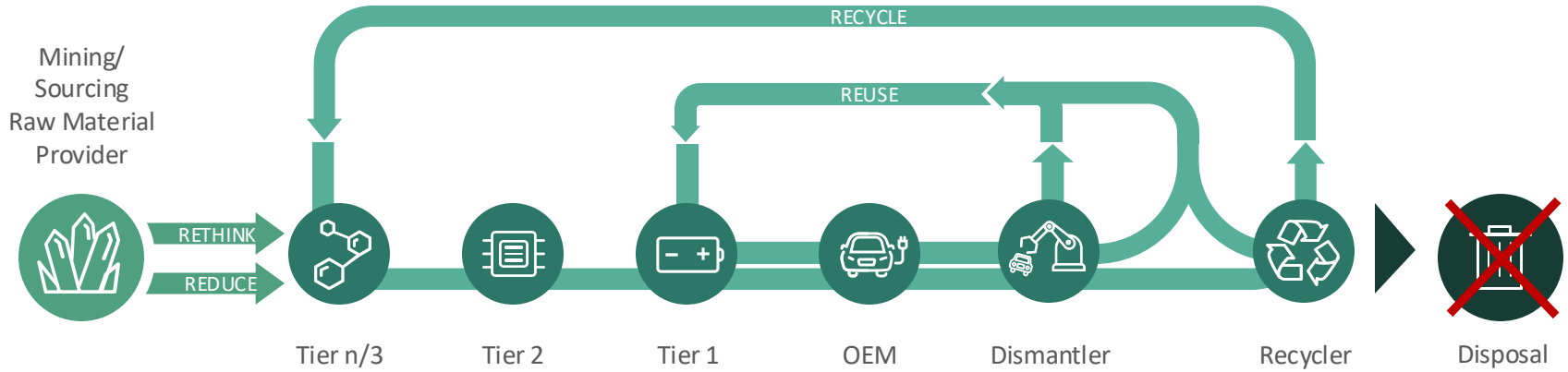
High-security data exchange protocols aligned with international regulation

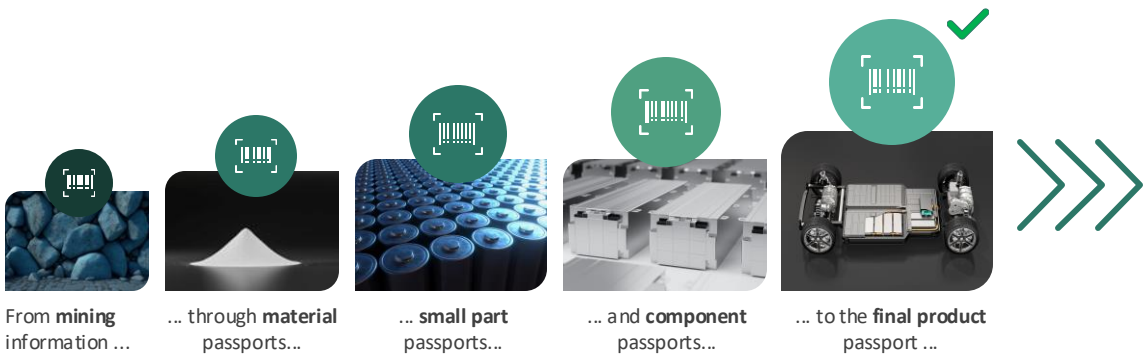


Interoperability based on open-source standards



Challenge 1: Generate a product passport by aggregation along the value chain





From **mining** information ...

... through **material** passports...

... **small part** passports...

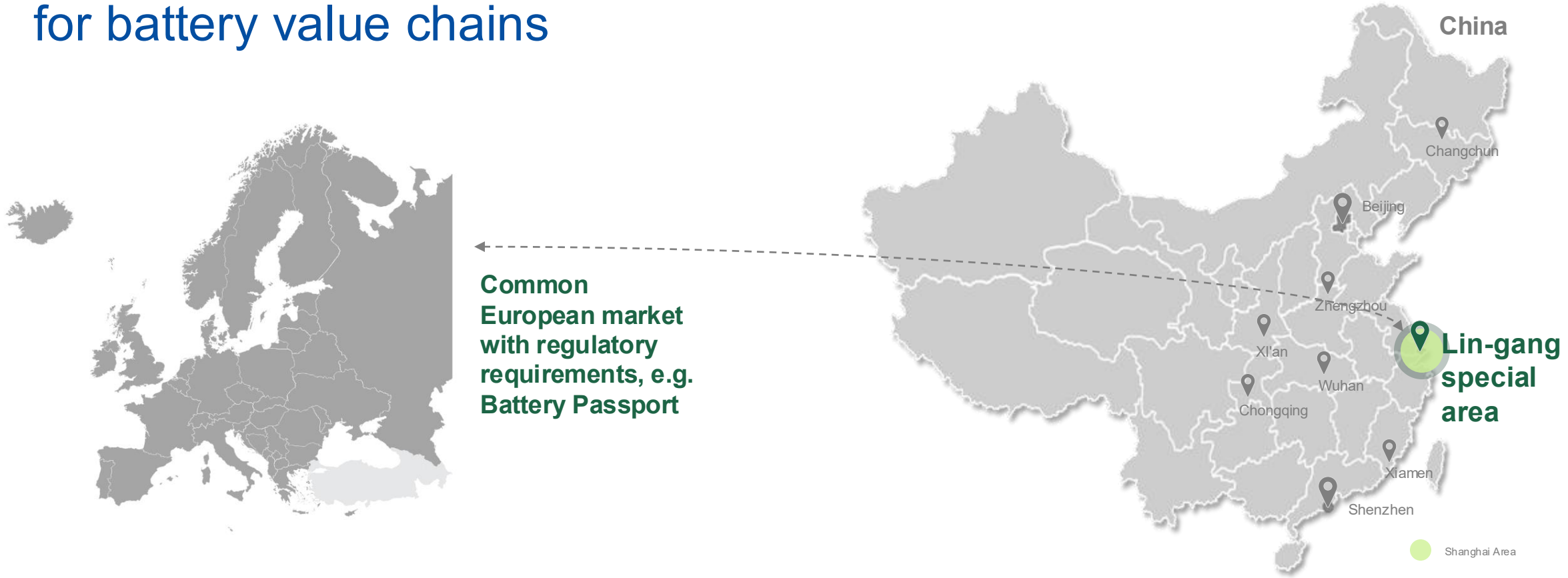
... and **component** passports...

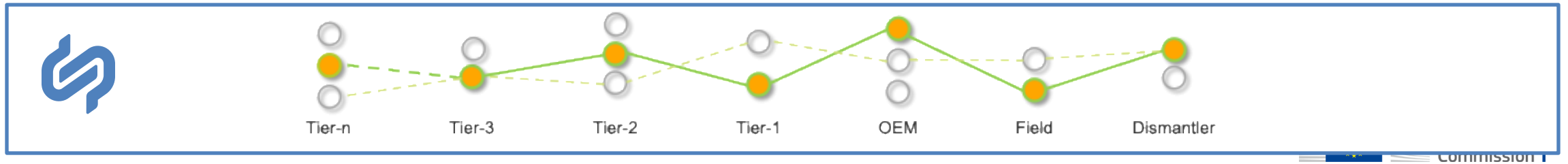
... to the **final product** passport ...

How Catena-X supports Digital Product Passes

- Standardized data model that specifies the content of a passport
- Infrastructure for providing and consuming data
- Vendor-neutral certification process for Battery Passport applications

Challenge 2: cross-border interoperability for battery value chains

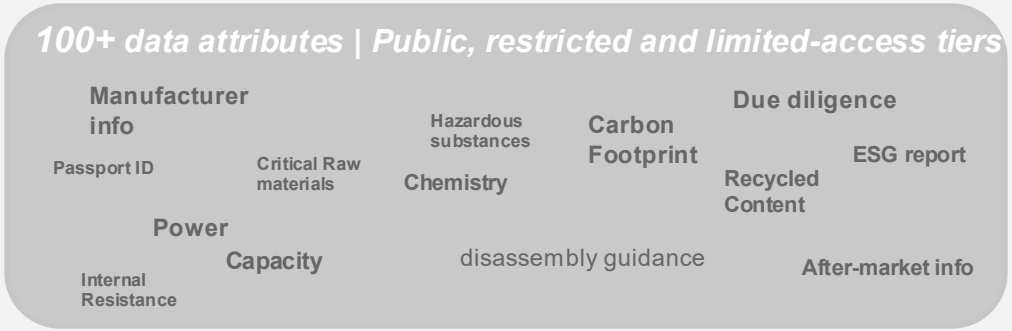




EU / China: The Regulatory Landscape

EU Battery Passport Regulation

Effective February 2027 | All EV, industrial (≥2kWh) and LMT batteries sold in the EU



Who's responsible? - EU-based pack producer or importer (mainly OEMs)

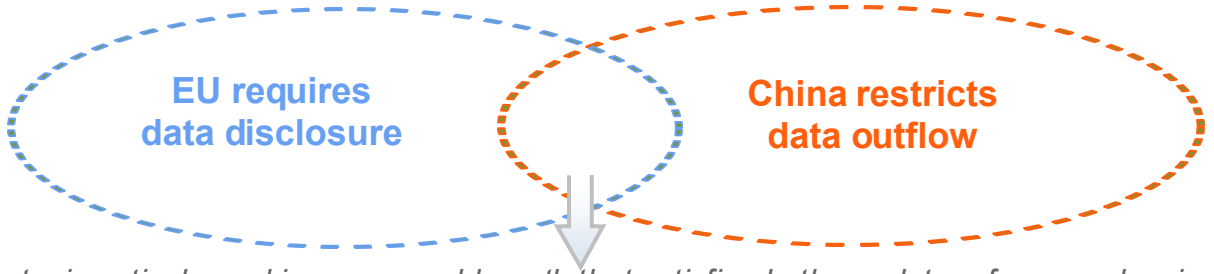
China's Data Regulatory Framework

Under development | *Data Security Law*, and the *Cybersecurity Law* collectively require security assessments for outbound transfer of "Important Data."

Key Implications

- Requirements apply to all data flowing out of China, including to the EU
- Much of the data required by the EU (composition, supply chain) may be classified as Important Data
- Battery sector's "Important Data" catalog is still under development.

The Compliance Challenge



Industry is actively seeking an operable path that satisfies both regulatory frameworks simultaneously.
The Lingang Whitelist pilot represents one such effort.

European Commission

Piloted Solution: Lin’gang-BMW-CATL Pilot

A cross-industry initiative to demonstrate compliant battery passport data exchange between China and Europe.

Lingang Data Whitelist

Developed by Lin’gang Special Area (Shanghai) — China’s nationally endorsed pilot zone for cross-border data flow innovation. Provides explicit guidance on permissible data fields.

Category	Examples of Data Scope (in total 43 static data)
General Info	Passport ID, Manufacturer, Country of Origin, Weight
Materials	Battery chemistry, hazardous substances, CRMs
Carbon & ESG	Life-cycle carbon, due diligence report, ESG report
Circularity	Recycled content, recycling guidance
Performance	Capacity, power, nominal voltage, internal resistance

80% *of EU data requirements covered*

20% *excluded (sensitive: detailed composition, disassembly manual)*

Pilot Execution

Partners: CATL + BMW + Catena-X

1. **Selected** one CATL-BMW battery pack
2. **CATL Collected** product data based on **Lin’gang Whitelist**
3. **Transmitted data to BMW**
4. Included in **China-Germany** High-Level Summit outcome list (26.3)

Outcomes

01 **First of cross-border transfer pilot**: **World’s first compliant cross-border Battery Passport data** transfer between China and Europe

02 **Cross jurisdiction compliance effort**: Endeavor to met both **EU Battery Passport requirements** and **Chinese data export laws**

03 **Phase 1 scope demonstrated**: ~80% of EU static data requirements achievable via Lingang Whitelist as an initial operable scope

04 **Industry pathway established**: Proved that cross-jurisdiction regulatory challenges can be addressed through industry collaboration

Sounds complicated – is support available?

There is significant support available in 2026

A Federal Study
Driving Data Space Adoption

15.000 € / 30.000 €

25 Mio. €

Planned launch in May, completion in 2026

INTERNATIONAL DATA SPACES ASSOCIATION

Catena-X Your Automotive Network

Cofinity-X

Target of approx. 1,000 companies, with a focus on SMEs

Onboarding in the Catena-X Dataspace

+

Implementation of a CX use case

+

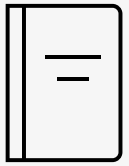
Input for a study on digital readiness

European Commission

Why this is relevant for the Battery Passport

No theoretical exercise – funding is tied to real, productive data exchange with at least one partner

Onboarding in the Catena-X Dataspace



Input for study
- At the beginning
- After implementation

Defined use cases
with tangible business value

Certificate Management

Product Carbon Footprint

Battery Passport

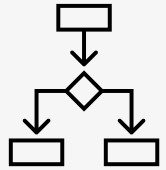
Tracebility

Quality Management

Demand and Capacity Management

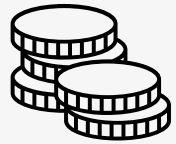
Short Term Supply Management (PURIS)

Circular Economy



Freedom to choose the implementation approach

Prove of data exchange in line with use case

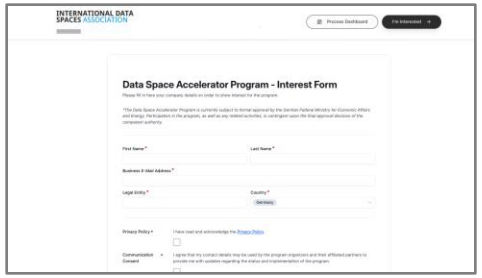


15.000 € (CCM only)
30.000 € (CCM plus complex use case)

What you need to do now

1

Register your interest

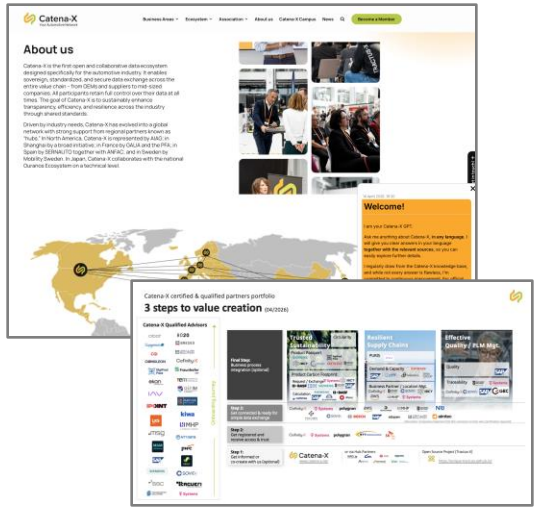


Leave your contact details at our booth or online to be notified as soon as the program officially launches (planned: May 2026)

2

Explore Catena-X

Visit **catena-x.net** and start the onboarding journey to familiarize yourself with the data space, available use cases, and certified solutions



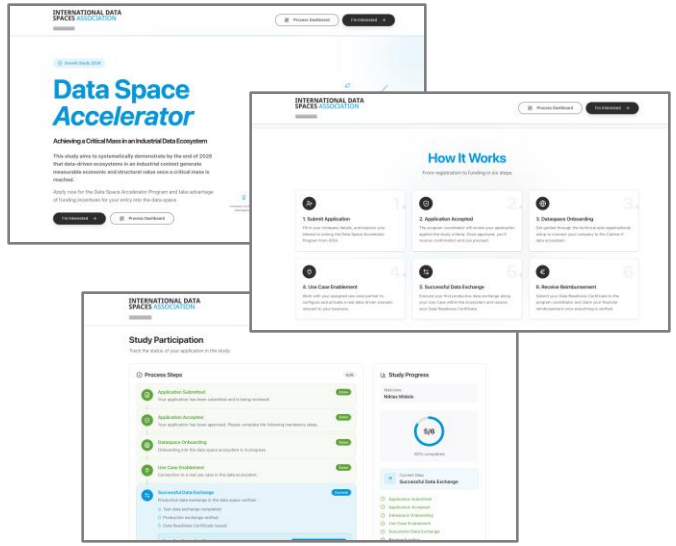
3

Identify a data exchange partner

Think about which existing customer or supplier you could complete your first productive data exchange with

4

Join the program



Become part of a growing ecosystem – approx. 1,000 companies targeted; early movers gain a competitive edge

European Commission

Become directly involved in the partnership!

Catena-X Automotive Network e.V.

Live Q&A

Do you have any questions or comments?

European Commission

5 *Closing Remarks & Conclusion*

European Commission

Thank you!

Contact: GROW-DIGITAL-PRODUCT-PASSPORT@ec.europa.eu