

StandICT.eu Digital Product Passport landscape analysis

CIRPASS (1)

CIRPASS-2

Jens Gayko

- DKE – DKE German Commission for Electrical, Electronic & Information Technologies
- SCI 4.0 – Standardization Council Industrie 4.0

Frankfurt, 2024-06-07



Brussels, 30.3.2022
COM(2022) 142 final
2022/0095 (COD)

Proposal for a
REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL
establishing a framework for setting ecodesign requirements for sustainable products
and repealing Directive 2009/125/EC

(Text with EEA relevance)
(SEC(2022) 165 final) - (SWD(2022) 81 final) - (SWD(2022) 82 final) -
(SWD(2022) 83 final)

Digital product passport – Demanded by politicians...

European Green Deal

"[...] for example, an electronic product passport could provide information about the origin, composition, repair and disassembly options of a product, as well as its handling at the end of its service life.

- **March 2022: EC publishes legislative proposal for an Ecodesign Requirement for sustainable Products (ESPR)**
- **2027: Adoption of DPP for selected products**

March 2022:

EC publishes legislative proposal for an Ecodesign Requirement for sustainable Products

1. What is the Digital Product Passport?

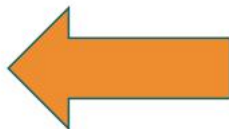
- DPP is an integral part of Ecodesign for Sustainable Products Regulation; it shares:
 - The adoption timeline
 - The (future) work programme for priority products
 - The entry into force timeline for product requirements (except for batteries)
- A (growing) number of other EU policies will rely on DPP (or elements of it) to make product-related information digitally available :
 - Batteries Regulation
 - Toys regulation
 - Detergents regulation
 - Construction Products Regulation
 - Critical Raw Materials Act

1. What is the Digital Product Passport? (ctd.)

- The DPP will simplify digital access to product-specific information related to sustainability, circularity, and legal compliance.
- It will set data access Ecodesign requirements for products, complementing the physical Ecodesign requirements.
- It is not a track & tracing tool, but it will allow traceability information when appropriate.
- The DPP-system shall build on existing best practices at international level, while also allowing the possibility of using new technologies and approaches.

2. DPP main design features

DPP-system



(the **"HOW"**. To be developed horizontally for all product groups and legislations)

- The DPP registry
- A searchable Web Portal
- All standards and protocols related to IT architecture:
 1. Unique identifiers
 2. Data carriers and links between physical product and digital representation
 3. Access rights management, information security, and business confidentiality
 4. Interoperability (technical, semantic, organisation)
 5. Data processing , data exchange protocols, and data formats
 6. Data storage, archiving, and data persistence
 7. Data authentication, reliability, integrity
 8. APIs for the DPP lifecycle management and searchability



DPP-data

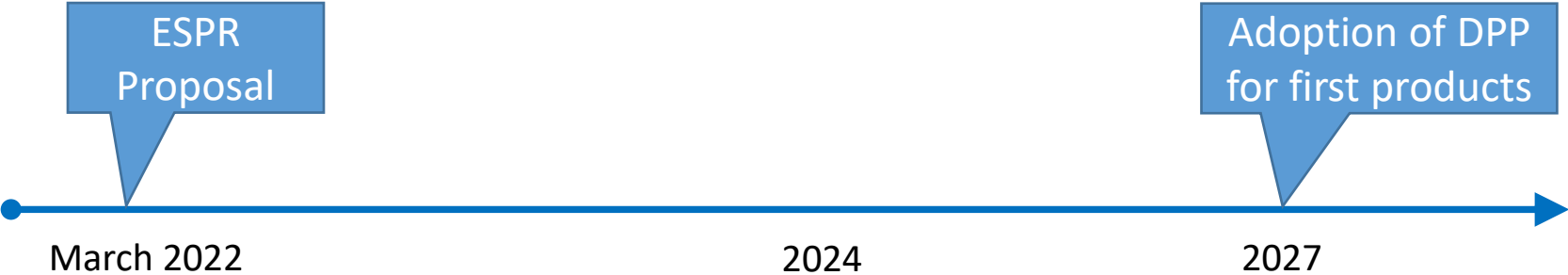
(the **"WHAT"**. To be developed through **product-group specific** dedicated legislation)

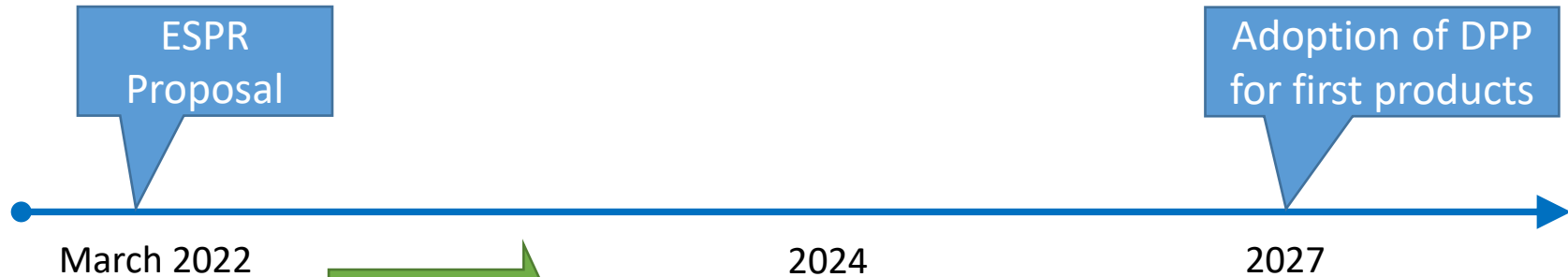
Information to be included in the DPP will be **product-group specific** and identified in delegated act process.

It may include information/data on one or more of the following areas:

- Technical performance
- Environmental sustainability performance
- Circularity aspects (durability, repairability, etc)
- Legal compliance
- Product-related information (e.g., manuals, other labels)

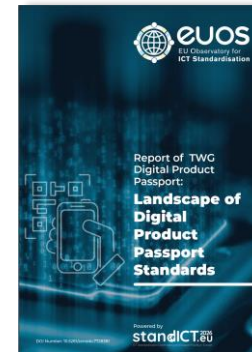
EU-DPP Timeline



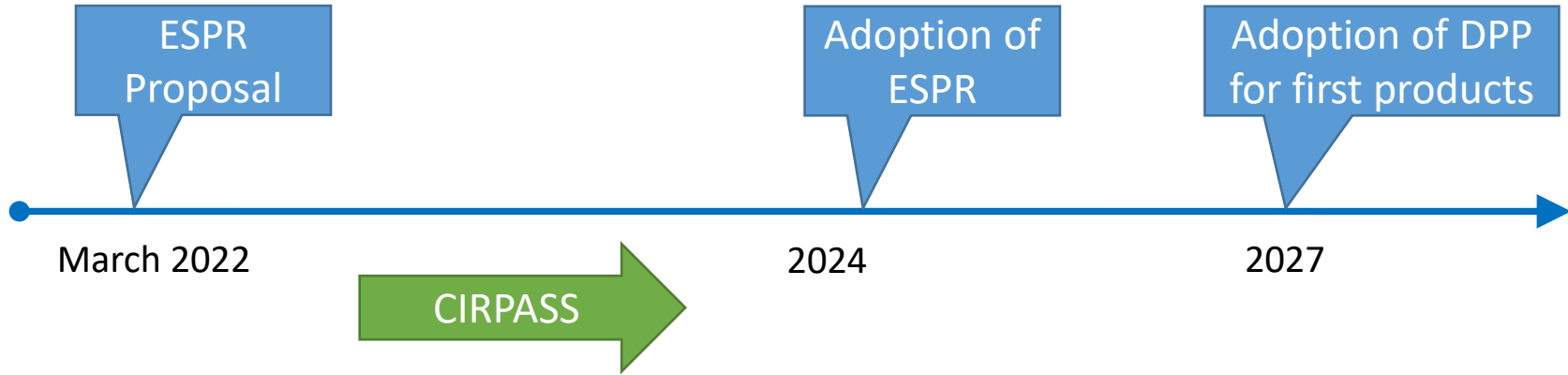


Technical Working Group DPP

- Collection of 260 (potentially) relevant standards for DPP
- Landscaping Report published March 2023:
<https://standict.eu/landscape-analysis-report/landscape-digital-product-passport-standards>
- Convenor: Dr. J. Gayko (DKE) + B. Helfritz (DIN)



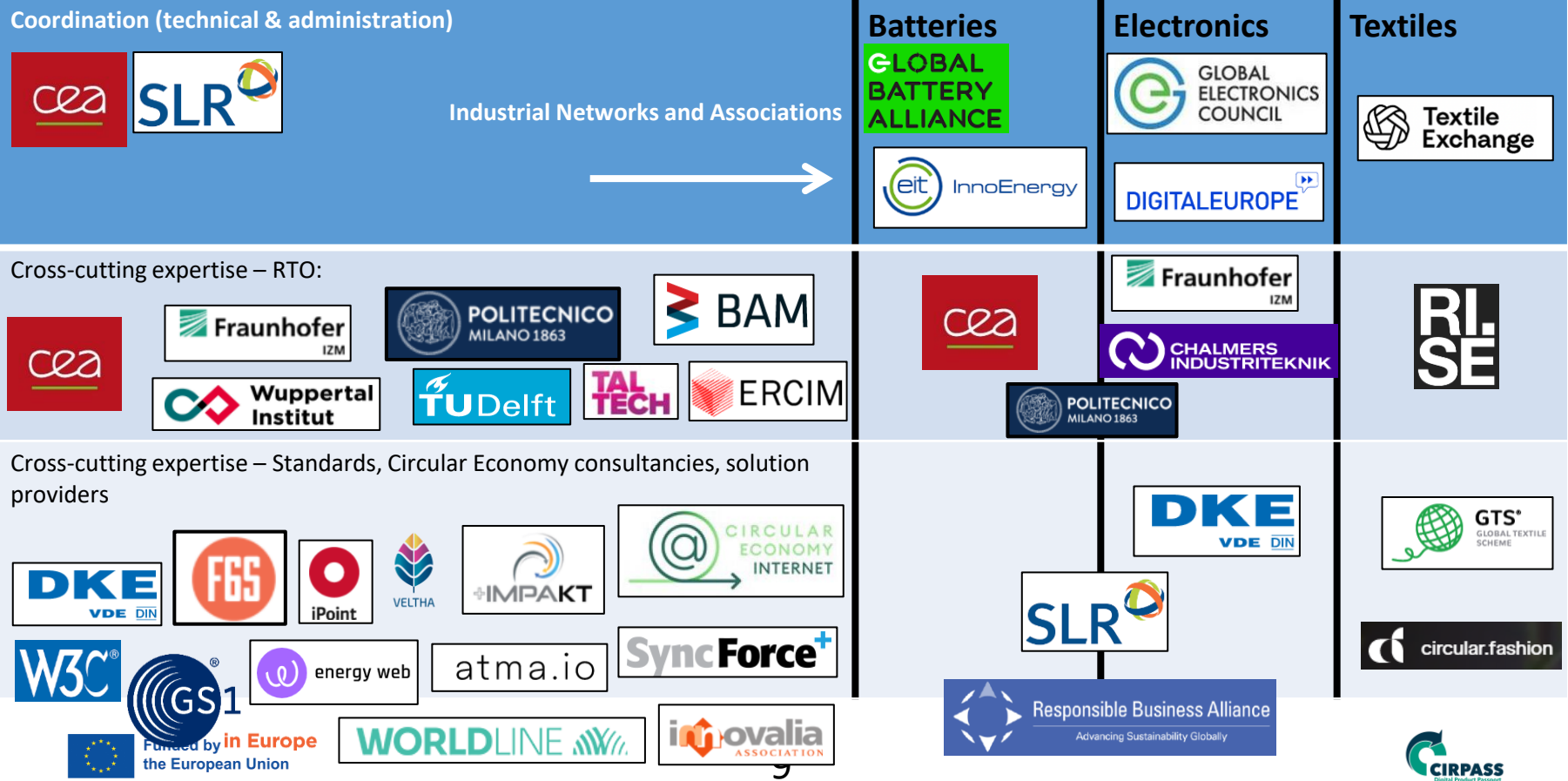
EU-Project CIRPASS (1) - What is it?



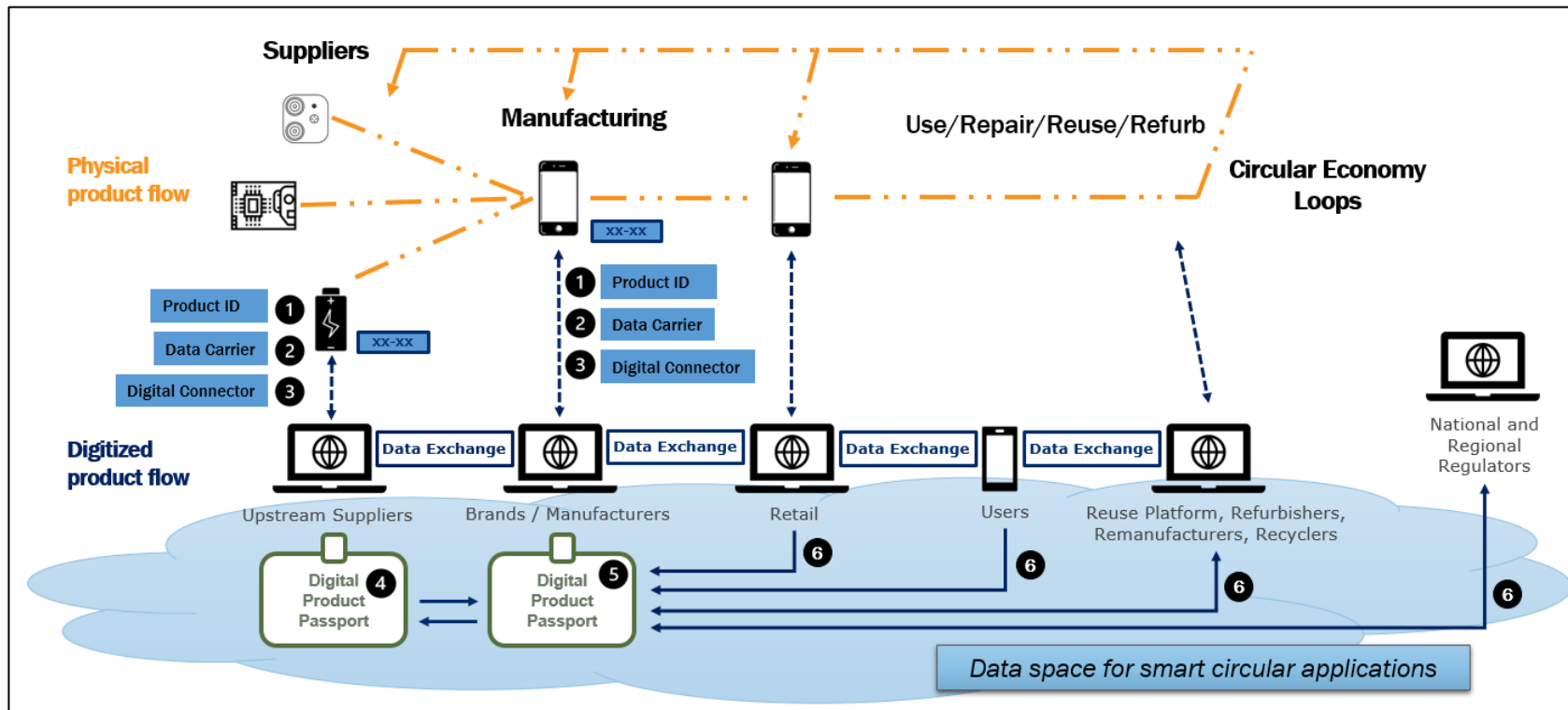
- Coordination and Support Action (CSA)
- Budget: 2M Euros
- Start date: October 2022
- Duration: 18 months
- Coordinator: CEA (France)
- 30 partners – also VDE DKE
- Numerous liaison partners



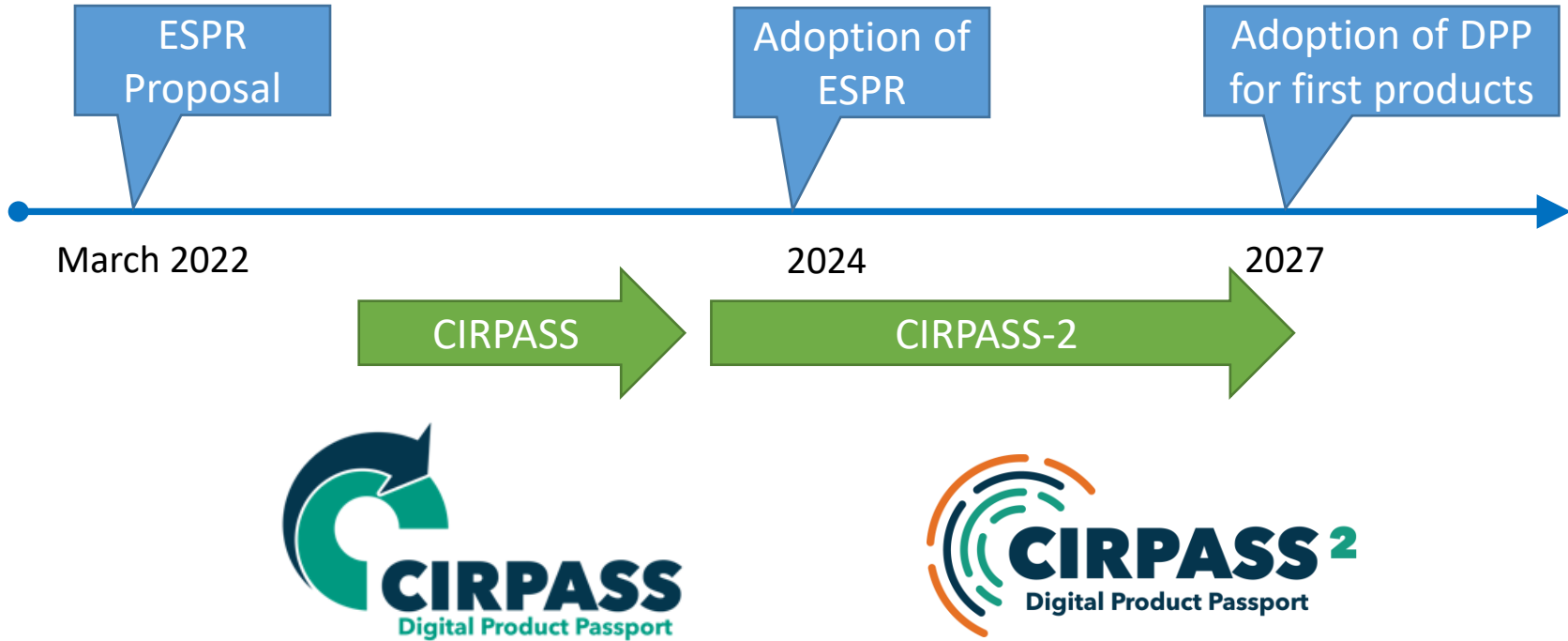
Consortium – 30 partners



Components of the DPP system



EU-Projects CIRPASS (1) and CIRPASS-2





CIRPASS-2

Digital Product Passports Enabling At-Scale and Real-Life Circular Economy Use Cases in electronics, textiles, tires and construction value chains

Call: DIGITAL-2023-CLOUD-DATA-04 -DIGIPASS - Digital Product Passport

EU Agency: HaDEA

Budget: 12,558 million euros (50% funding rate. 6 million euros requested funding)

Type of project: Innovation Action

Coordination: CEA

Number of Partners: 49

Project duration: May 2024 – April 2027

1. Deploy and validate at scale and in real-life setting Digital Product Passports in four target value chains

Focus on B2B activities that promote circularity

While supporting the ongoing CEN/CENELEC standardisation work

2. Demonstrate cross-pilot interoperability
3. Provide support to SMEs in their uptake of DPPs. Support the deployment of DPP-as-a-Service
4. Support the deployment and adoption of DPPs by other sectors targeted by upcoming European regulations and beyond

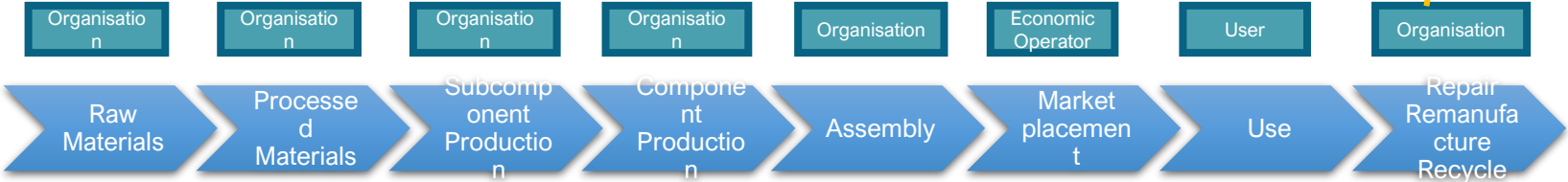
What problem are we trying to solve?

Problem #1

“How can all industries agree on a common DPP system that is compliant to the requirements of future regulations and that is capable of supporting the massive issuing of DPPs in 2027 (Battery Regulation)?”



This is the primary focus of CIRPASS-2



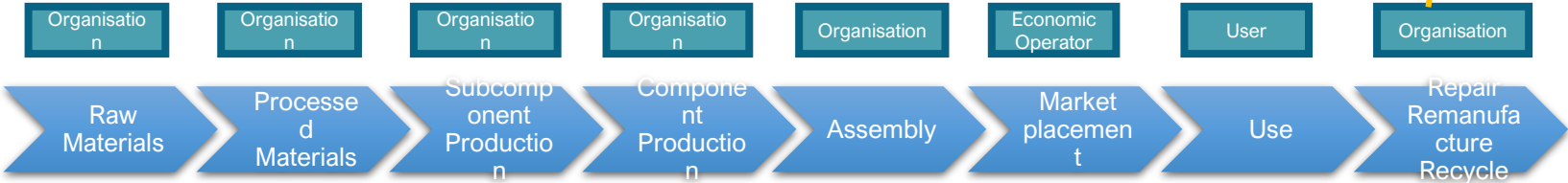
What problem are we trying to solve?

Problem #2

“How can all industries agree on an extensible and flexible DPP system capable of supporting beyond-mandatory data exchanges to enable new circular business models?”



This is the primary focus of CIRPASS-2



Five Expert Working Groups:

EWG1: Observatory Board : European and Global Regulatory Context. Moderator: Shailendra Mudgal (Bio Innovation Services)

EWG2: Standardisation liaisons. Moderators: Jens Gayko (VDE) Benjamin Helfritz (DIN)

EWG3: Textile Stakeholders Group. Moderator: Andreas Schneider (Global Textile Scheme)

EWG4: Electronics Stakeholders Group. Moderator: Chiara Sandionigi (CEA)

EWG5: Customisation and deployment of DPPs in other sectors. Moderator: Marc-Andree Wolf (Maki)

Each EWG will be limited to 100 participating organisations. EWG registration is open until this limit has been reached for each group. Please send an email with a few words on your background to carolynn.bernier@cea.fr

Five Expert Working Groups:

Purpose: Enable a two-way communication between the consortium and a larger community

Follow and provide expert feedback on the project developments

Disseminate project results and enable a feedback loop among a wider community

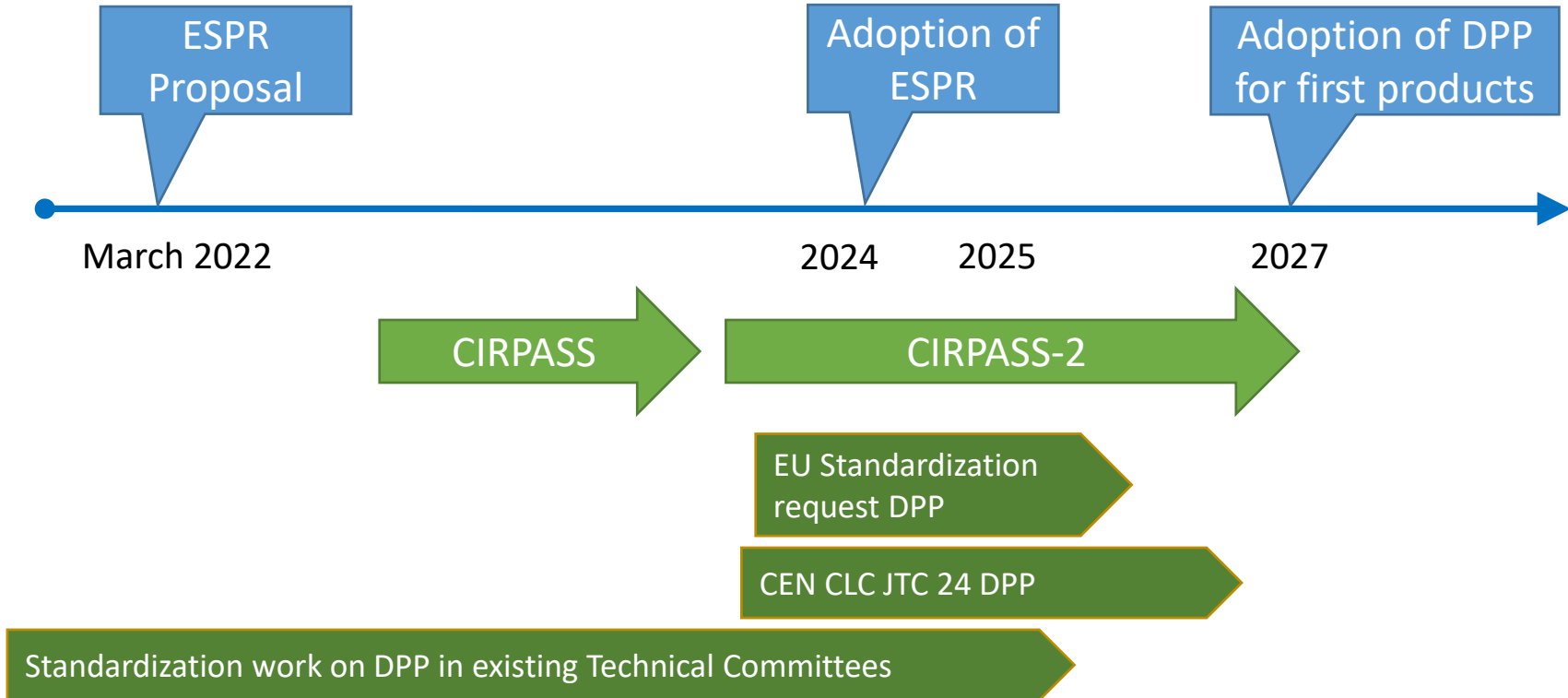
Constitute ad hoc sub-groups to discuss matters of interest

Commitment:

Commit to ~10-20 person-days over 3 years & 2 optional in-person meetings

All Expert Working Group member organisations will have the opportunity to be visible on CIRPASS-2 website (www-cirpass2.eu)

Relation to Standardization



Thank you!

www.cirpass2.eu

Contact us : info@cirpass2.eu

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The EU Digital Product Passport (DPP)



WHAT

*A structured collection of product related data with predefined scope and agreed data ownership and access rights conveyed through an **unique identifier***

HOW

***Decentralised** system with a central registry*

SCOPE

Information related to sustainability, circularity, value retention for re-use/remanufacturing/recycling

- 3 sectors: batteries, electronics, textiles
- 3 parallel work streams (WP2, WP3, WP4)
- Cross-sectoral viewpoint (WP5)

