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

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Disclaimer

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o The information provided should not be interpreted as representing the views of CEN/CENELEC JTC 24 nor of the European Commission.

Synergies with CEN/CENELEC JTC 24

1. CIRPASS-2 is an official liaison role to JTC-24 (*5 Liasons*)

2. DG CONNECT's main objective in funding CIRPASS-2 is bringing proof of DPP value in B2B circular use cases.
   → They expect that CIRPASS-2 will contribute to JTC-24 with feedback gathered from real-world pilots showing beyond-regulatory uses of the DPP.

3. CIRPASS-2 can support the dozens of other EU-funded DPP-related projects in bringing their contributions to JTC-24.

Why?

ESPR establishes a framework legislation

ESPR = framework legislation

It does not set specific measures. Rather, it enables their later adoption

Framework legislation

Regularly updated **multiannual working plans** setting out priorities

Product-specific measures based on detailed impact assessment

European Commission

ESPR Webinar, 22.05.24

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ESPR = framework legislation

It does not set specific measures. Rather, it enables their later adoption

Framework legislation

Lex generalis

Product-specific measures based on detailed impact assessment

Lex specialis:
ESPR Delegated Acts
Battery Regulation
Construction Products Regulation
Toys Regulation
Detergents Regulation
Critical Raw Materials Act
…

ESPR Webinar, 22.05.24

Commission

DPP System vs. DPP Data

DPP System

- How?

- Defines technical architecture & protocols

- CEN/CENELEC has been tasked with translating the criteria into a technical standard

- CIRPASS 2 has 5 official liaisons to CEN/CENELEC

DPP Data

- What?

- Specifies mandatory product information for DPPs

- Defined by European Union Delegated Acts, which define sector-specific products standards and information

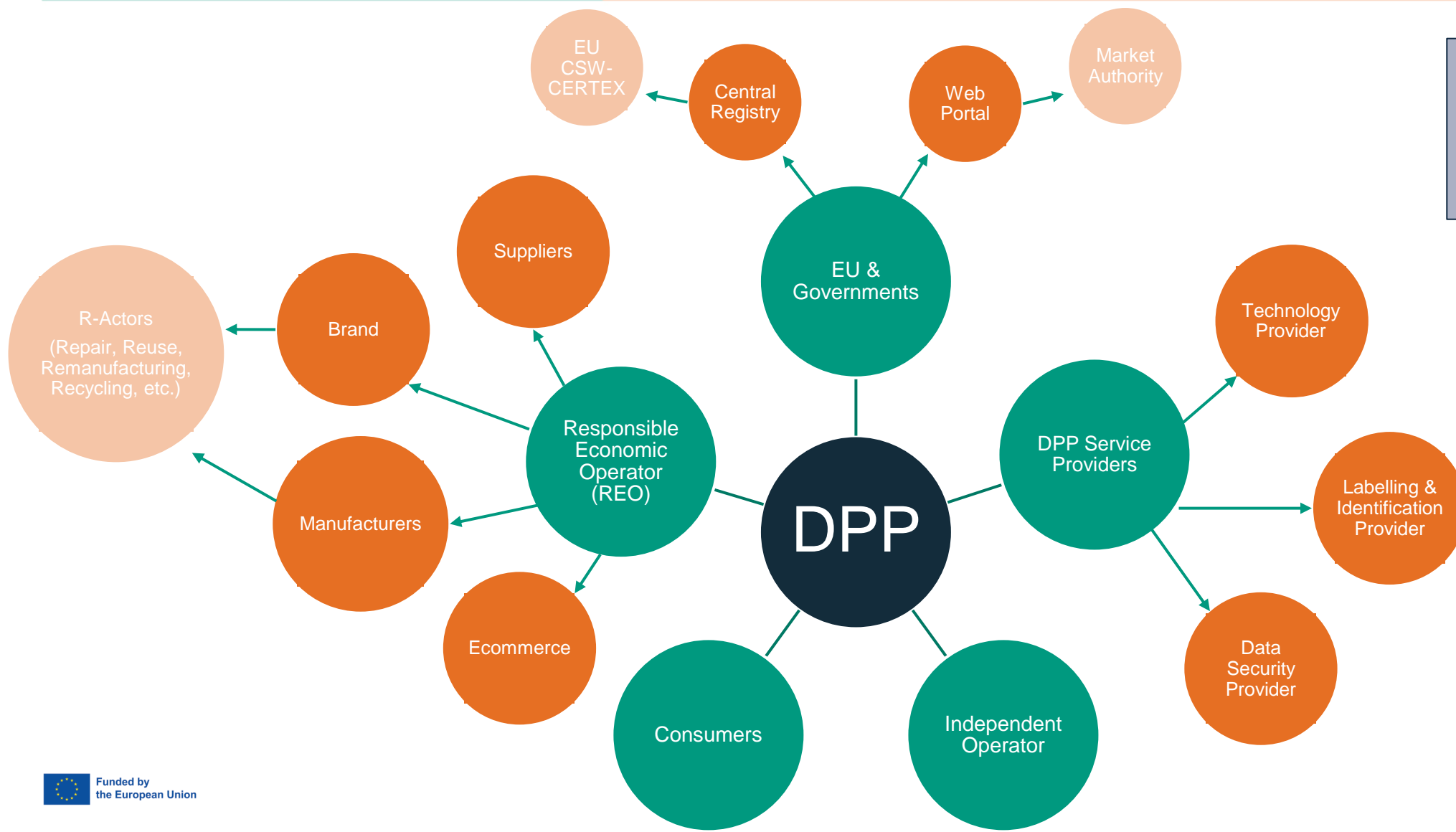- Covers sustainability, repairability, materials, etc.

The DPP standardisation challenge

- *How can **all industries** agree on a common DPP system that is **compliant** to the requirements of ESPR and that is capable of supporting the massive issuing of DPPs in 2027 ?*

Who?
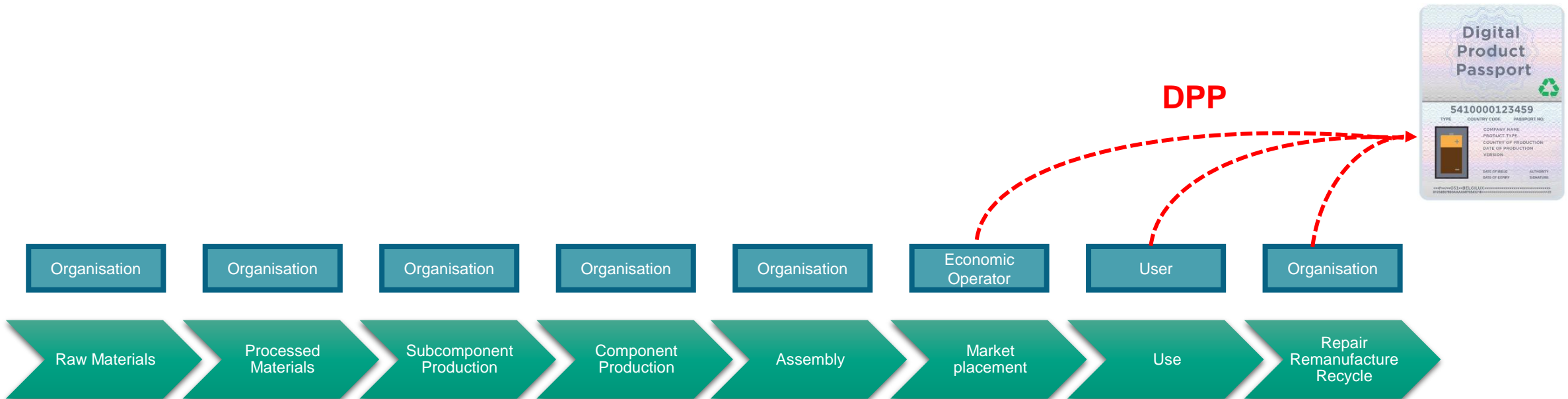
DPP Actors

When?

Roadmap to the operationalisation of the DPP

	2024				2025				2026				2027			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4

DPP STANDARDISATION MILESTONES (CEN-CENELEC)

Development and adoption CEN-CENELEC Standards

LEGAL MILESTONES

DPP system secondary legislation
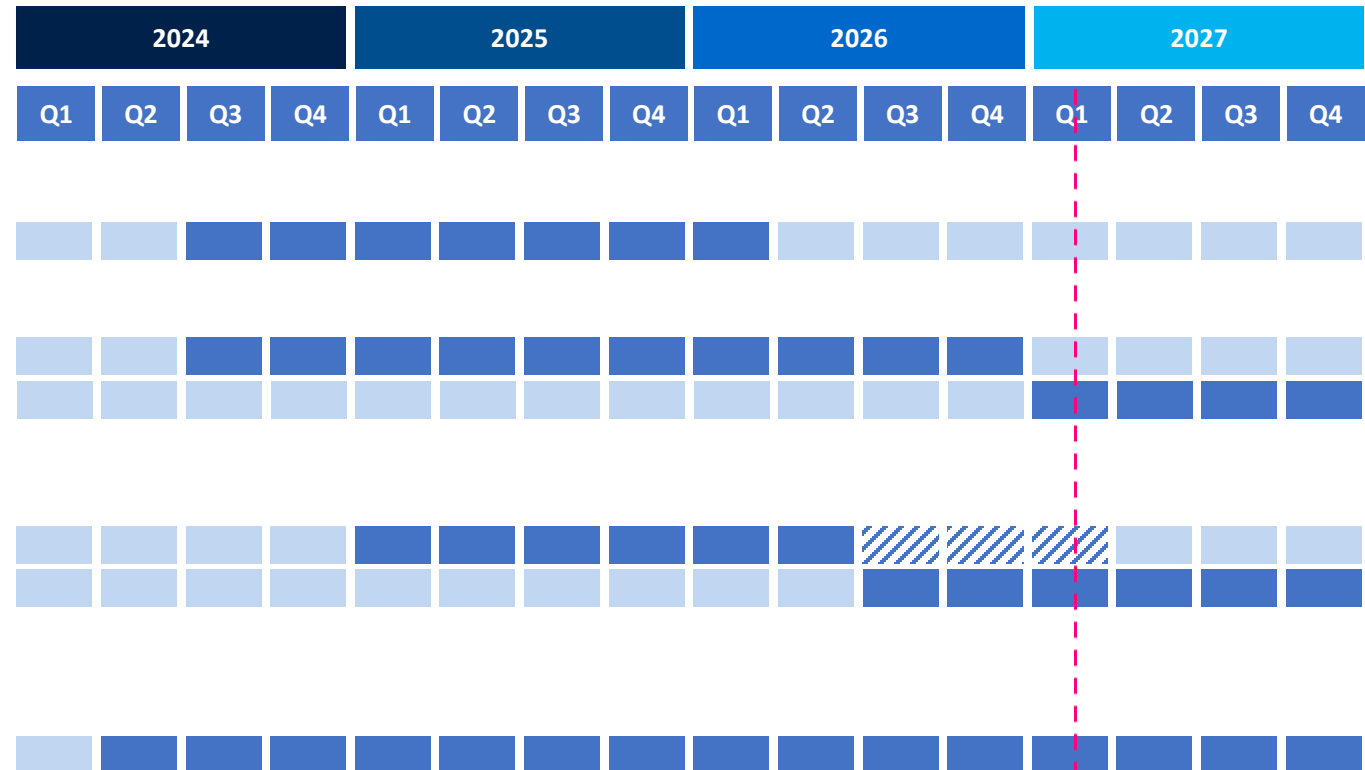
Product-specific rules

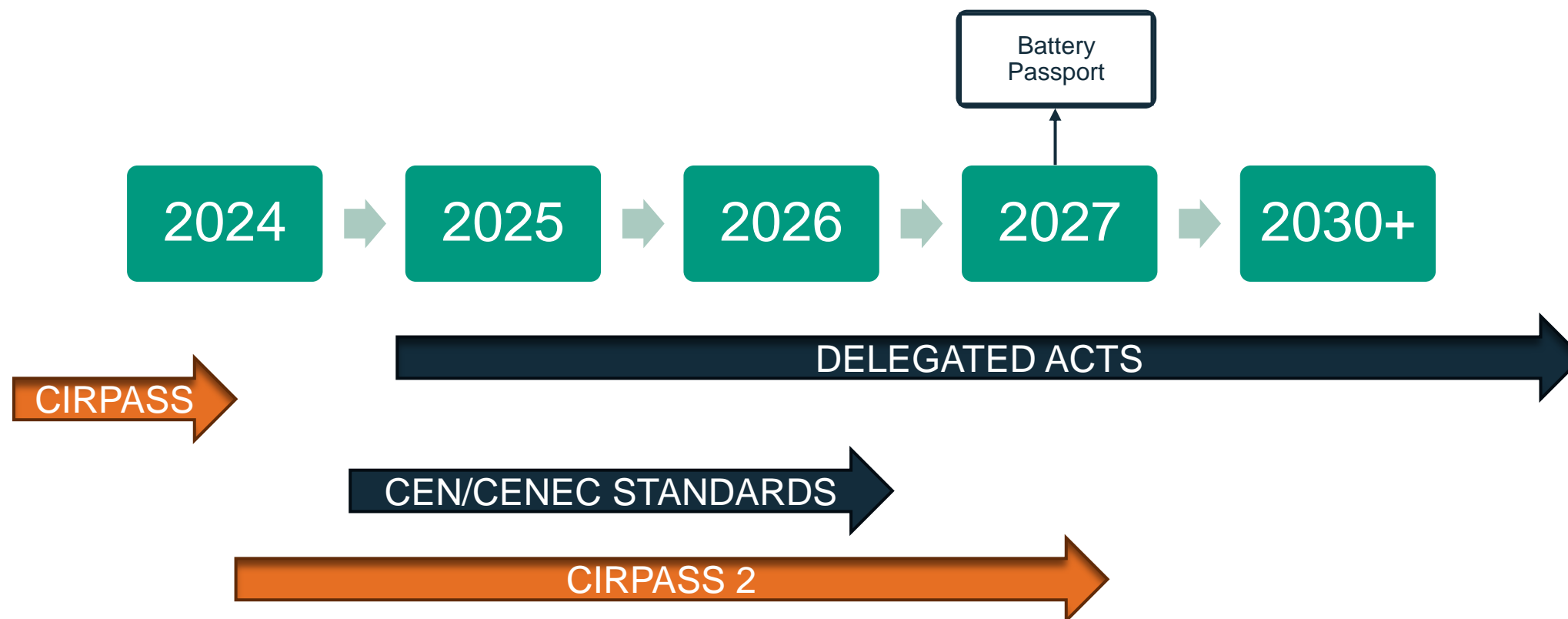**DPP DIGITAL IMPLEMENTATION MILESTONES**

DPP Registry

Web portal

STAKEHOLDERS ENGAGEMENT AND COMMUNICATION

Engage stakeholders

Registry established & testing activities with industry

DPP Timeline

Battery Passport

2024 → 2025 → 2026 → 2027 → 2030+

DELEGATED ACTS

CIRPASS

CEN/CENEC STANDARDS

CIRPASS 2

CIRPASS & CIRPASS-2

What are CIRPASS and CIRPASS-2 ?

- Funded by the European Commission under the **Digital Europe Programme**

- **Duration:** 18 months (from Oct 2022 to March 2024)

- **Coordination and Support Action**

- **2M euros funding** (70% funding)

- **31 partners**

Build consensus on a standards-based DPP system

- Funded by the European Commission under the **Digital Europe Programme**

- **Duration:** May 2024 – April 2027

- **Innovation Deployment Action**

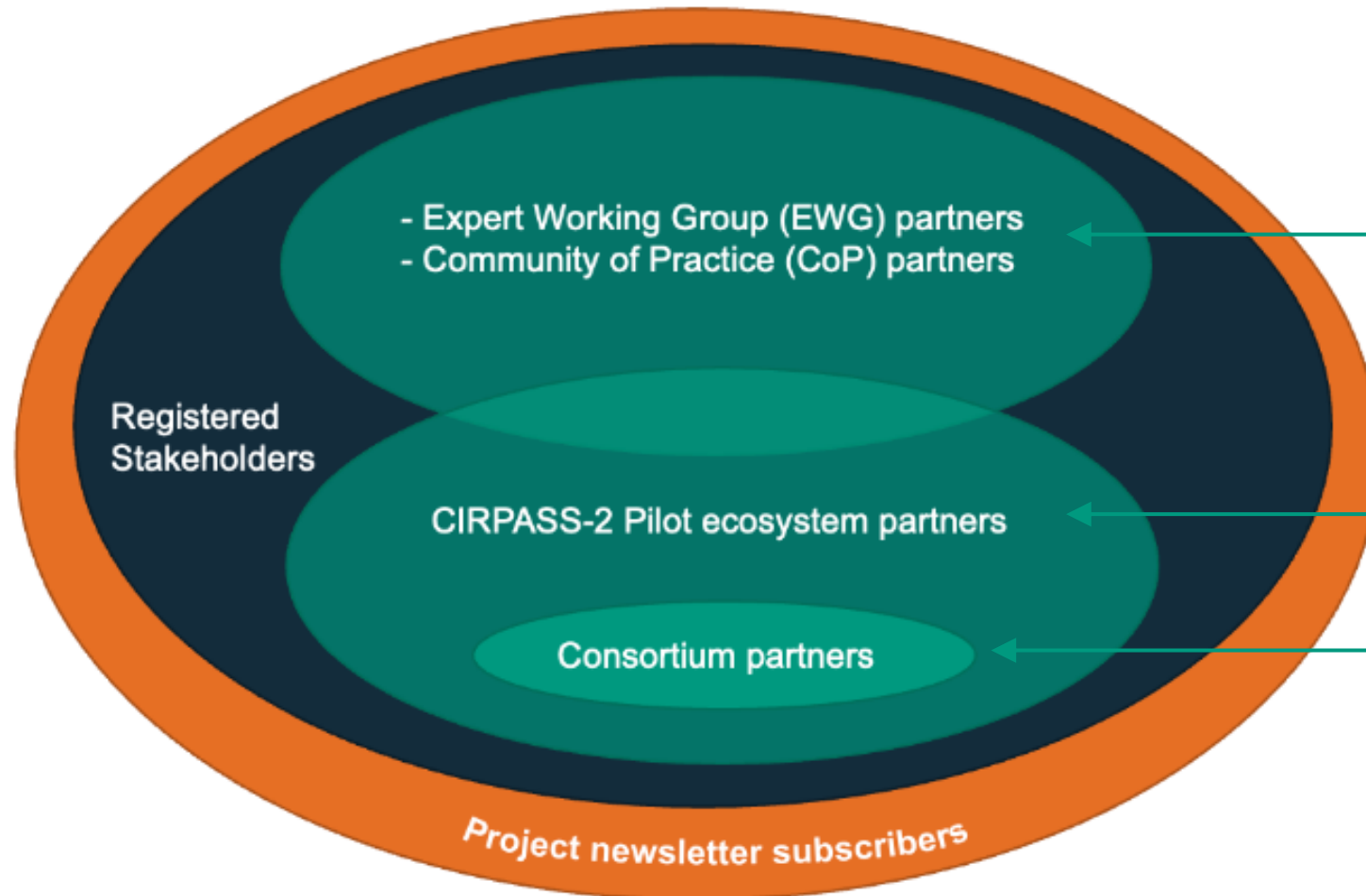- **6M euros funding** (50% funding)

- **50 partners (+)**

Deploy at scale Digital Product Passports in four target value chains and demonstrate data-enabled B2B activities that promote circularity

CIRPASS-2 in numbers

CIRPASS-2 Stakeholder Community — >5000

Registered Stakeholders

- Expert Working Group (EWG) partners
- Community of Practice (CoP) partners — >600

CIRPASS-2 Pilot ecosystem partners — >100

Consortium partners — 50

Project newsletter subscribers

organisations

CIRPASS-2 Main objectives

- At scale and real-life deployments of Digital Product Passports:
  - All pilots must demonstrate B2B activities that promote circularity and provide **quantitative proof** of DPP 'value' (both economic and environmental).

- Propose a DPP system architecture that is simultaneously aligned and interoperable with:
  - 1 - the requirements of the Ecodesign for Sustainable Product Regulations (ESPR)
  - 2 - the beyond-regulatory needs of industry, and
  - 3 – international DPP initiatives.

HOW CAN WE ACHIEVE THIS?

What is a "lighthouse pilot" ?

Each "pilot" comes with its own "**eco-system**" including:

- A pilot leader

- A number of **up-stream** partners who will create DPPs for their products

- A number of **downstream** B2B "R" partners, referring to 9R Framework for Circular Economy

- Circular economy business models and DPP **use cases** (<u>necessarily</u> including B2B data exchanges)
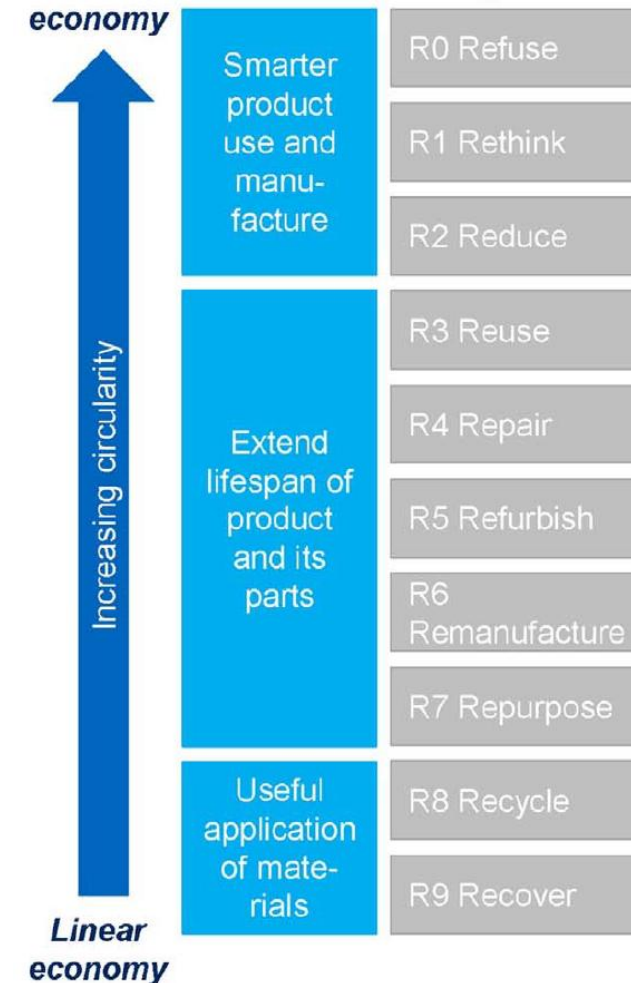
9R Framework for Circular Economy.
Source: J. Kirchherr et al. (2017, page 5)

CIRPASS-2 DPP Pilot Ecosystems

Circular Workwear

Connected Textile Lifecycle
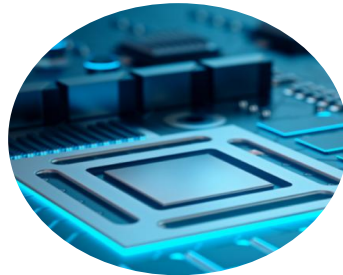
Circular Garments

Textile Sorting

Mattresses

Down-feather Bedding

Cordless Vacuum Cleaners

AAS-based DPP for Electronic Products

Audio Equipment

IT Second-hand Market

Tumble-dryers

Tyres

Construction Products

Requirements for the DPP IT system – User stories
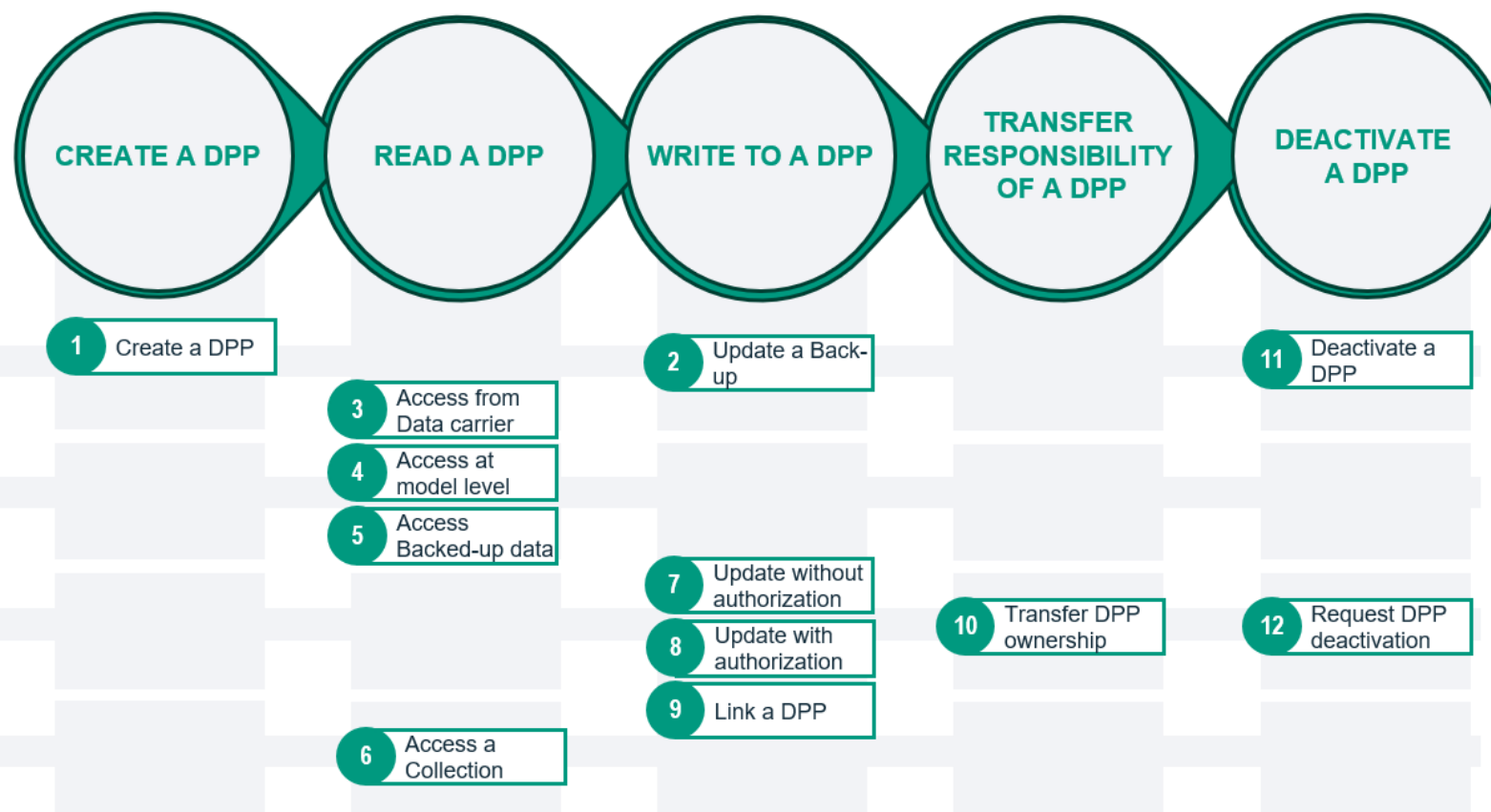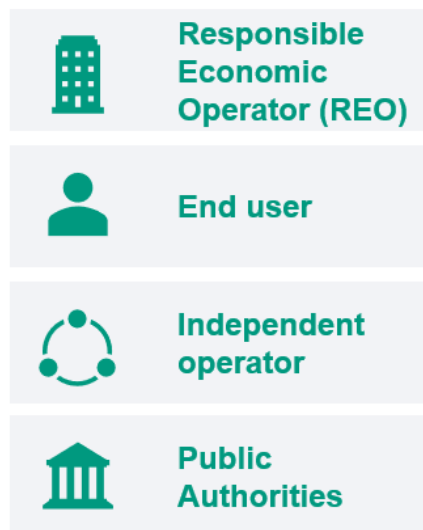
Download report

https://cirpass2.eu/project-results/

Why is the DPP System an incredible opportunity?

- **Vision:** The DPP links the EU internal market to the data economy.

Mandatory

→ Based on standardised data exchange protocols

→ Containing sector-specific **mandatory** sustainability & circularity information

EU DPP

Why is the DPP System an incredible opportunity?

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« **The DPP is not just a regulatory tool.** »

Mandatory

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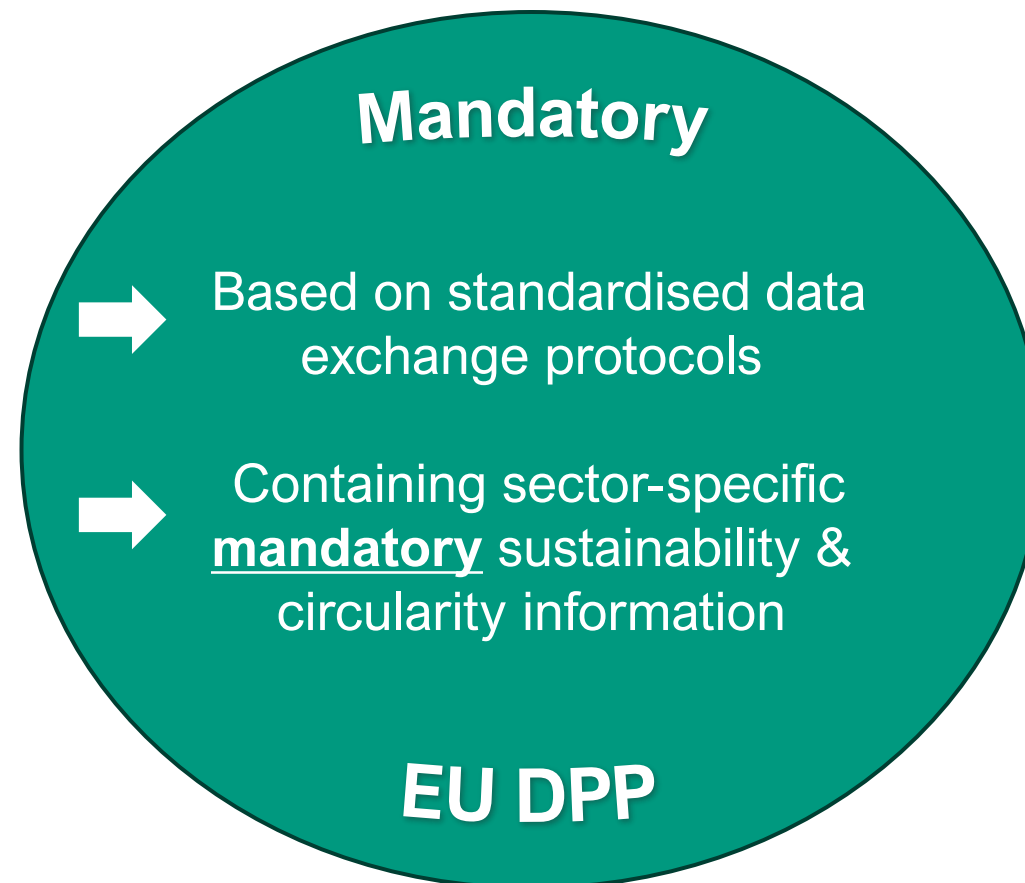Containing sector-specific **mandatory** sustainability & circularity information

EU DPP

Non mandatory

Interoperable dataspaces

Digitising the EU industry

Connection to GDDS data

Reuse of existing data catalogs and dictionaries

Data-enabled circular business models

Expanded product data models

Linked ontologies

Extended ESG traceability

Advanced Digital Services (DLT, VC, DIDs, Digital Twins, …)

Connection to international DPPs

Support efficient supply-chain-wide reporting
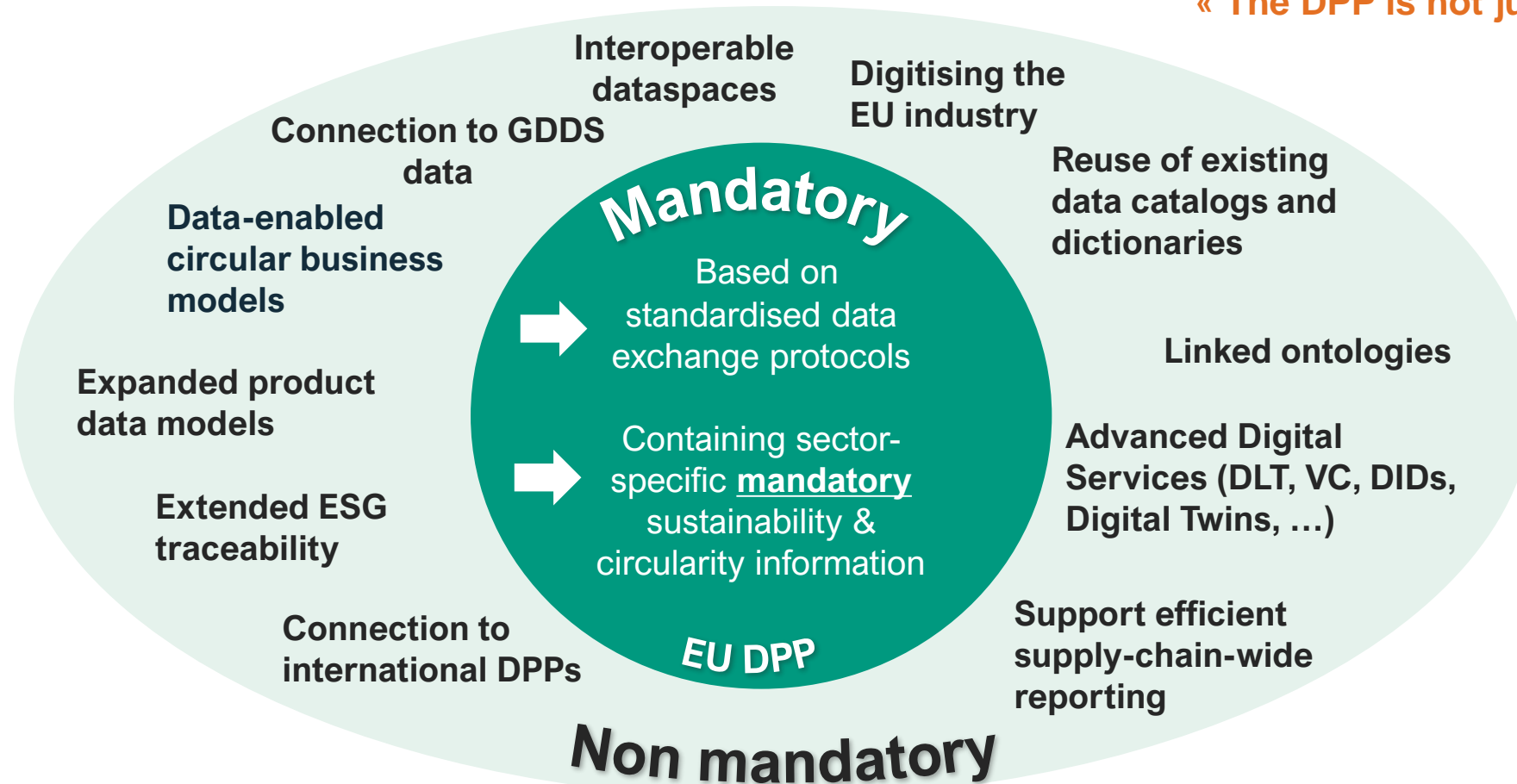
CIRPASS-2 addresses both mandatory and non-mandatory uses of the DPP

Why is the DPP System an incredible opportunity?

CIRPASS² Digital Product Passport
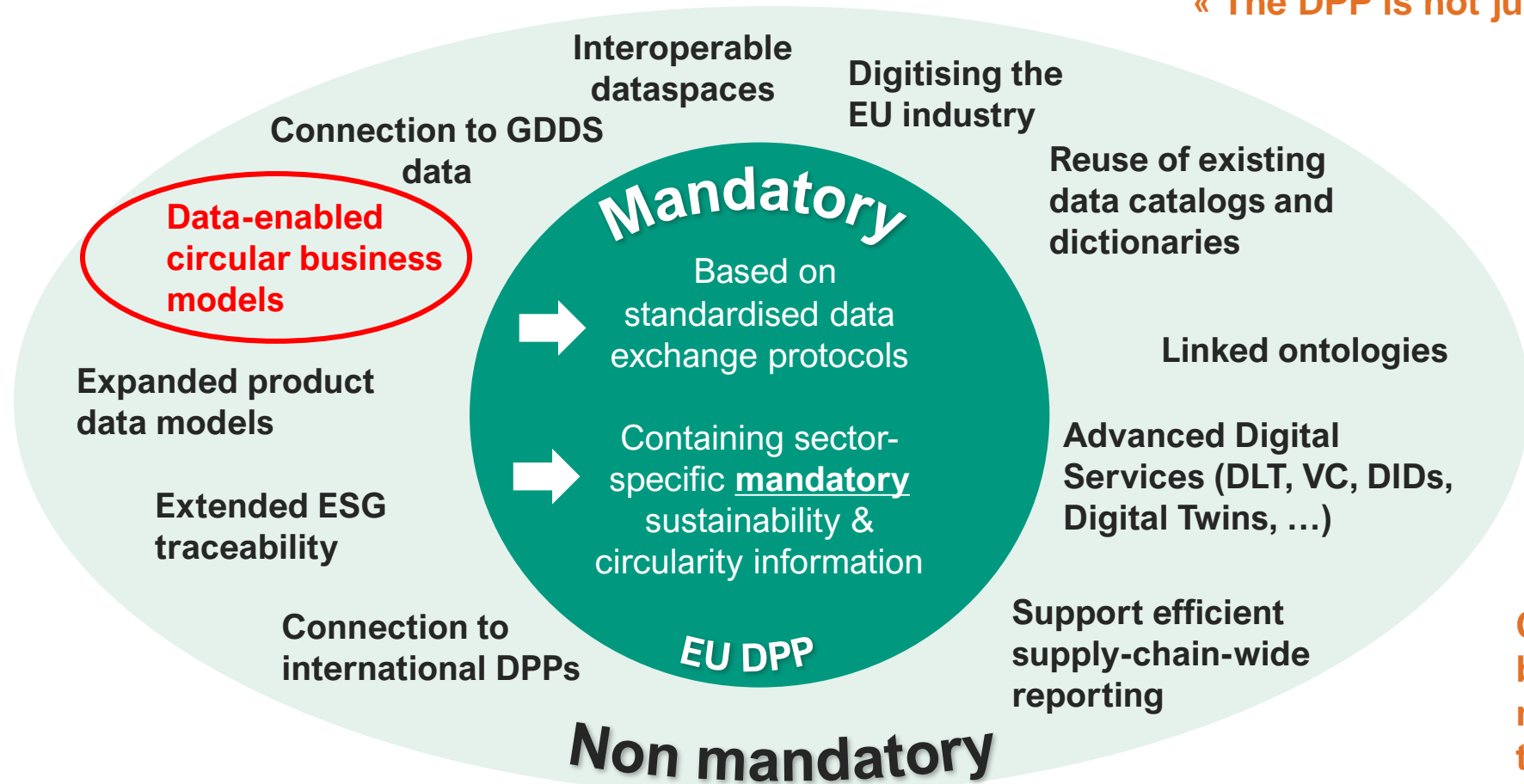
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EU DPP

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Non mandatory

CIRPASS-2 addresses both mandatory and non-mandatory uses of the DPP

Regulatory and beyond-regulatory requirements for the DPP system

Policy requirements

- No proprietary solutions

- Open standards and interoperable formats

- Decentralized data storage

- Both **static** and **dynamic** data

- **Public** and **private** access data

Business requirements

- Acceptability: Maximum reuse of legacy systems and legacy data

- Accommodate both **regulatory** and **non-mandatory** (business-model-specific) and evolving information requirements.

- Future-proof and easy to deploy: A DPP system with built-in flexibility based on state-of-the-art technologies but sufficiently mature to support DPPs in 2027

Potential for further burden reduction

Information beyond sustainability

Toys Proposal
Compliance Requirements (including Declaration of Conformity)

Interconnections

CERTEX

ICSMS?

DPP data re-use

Corporate Sustainability Reporting?

New legislative framework *(product requirements information)* ?

Thank you!

www.cirpass2.eu

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