

## CIRPASS-2

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

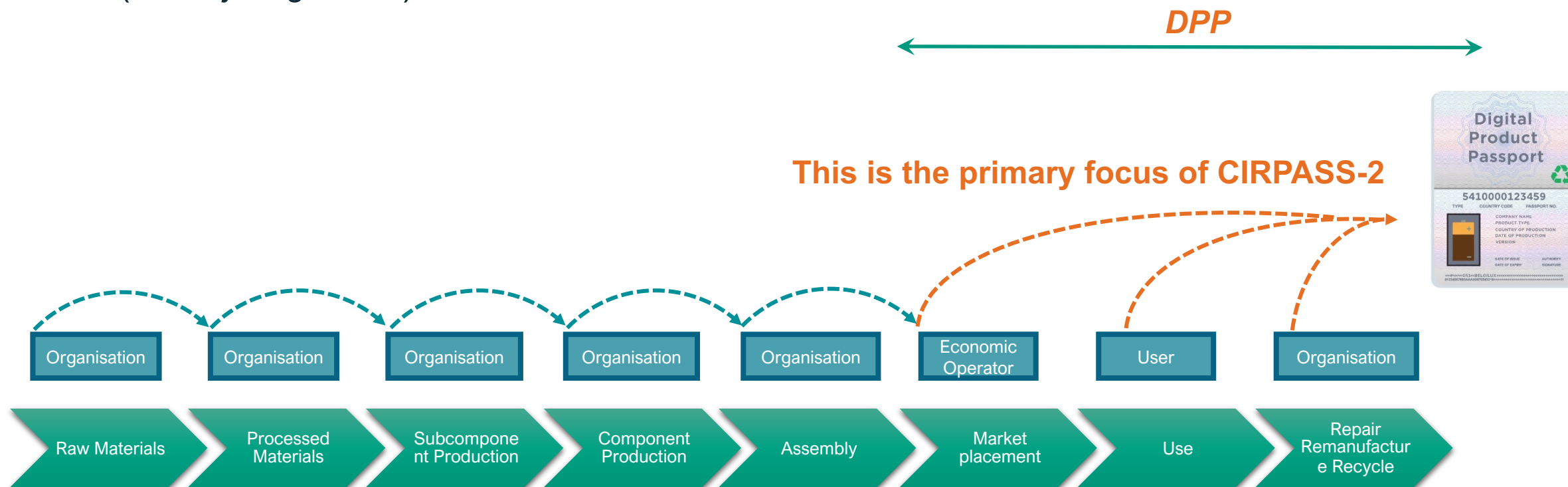
- **Call:** DIGITAL-2023-CLOUD-DATA-04 -DIGIPASS - Digital Product Passport
- **EU Agency:** HaDEA
- **Budget:** 12,558 million euros (50% funding rate. 6 million euros requested funding)
- **Type of project:** Innovation Action
- **Coordination:** CEA
- **Number of Partners:** 49
- **Project duration:** 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

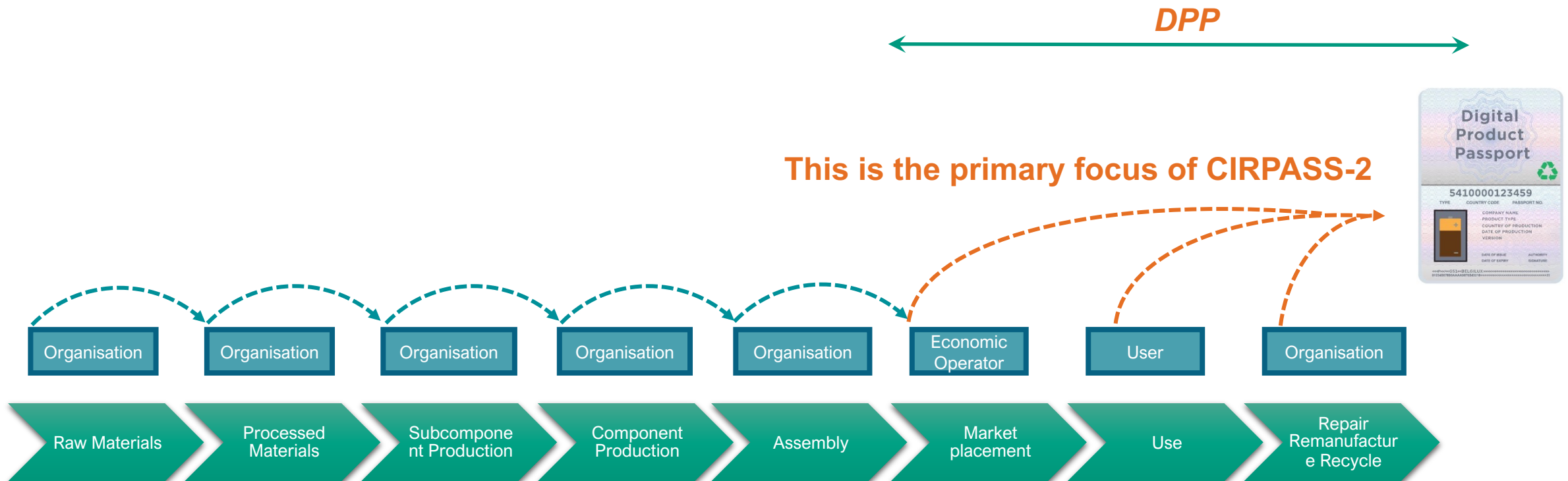
- “How can **all industries** agree on a common DPP system that is **compliant** to the requirements of future regulations and that is capable of supporting the massive issuing of DPPs in 2027 (Battery Regulation)?”



# What problem are we trying to solve?

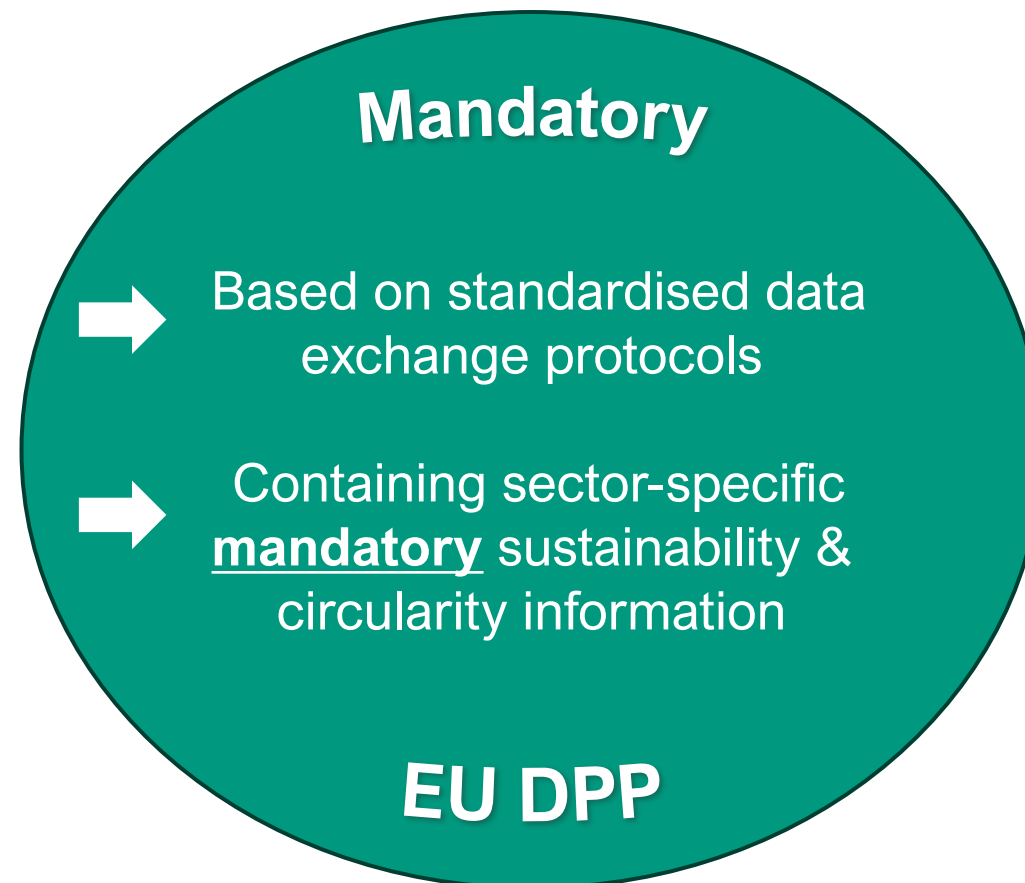
## ■ Problem #2

- “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?”



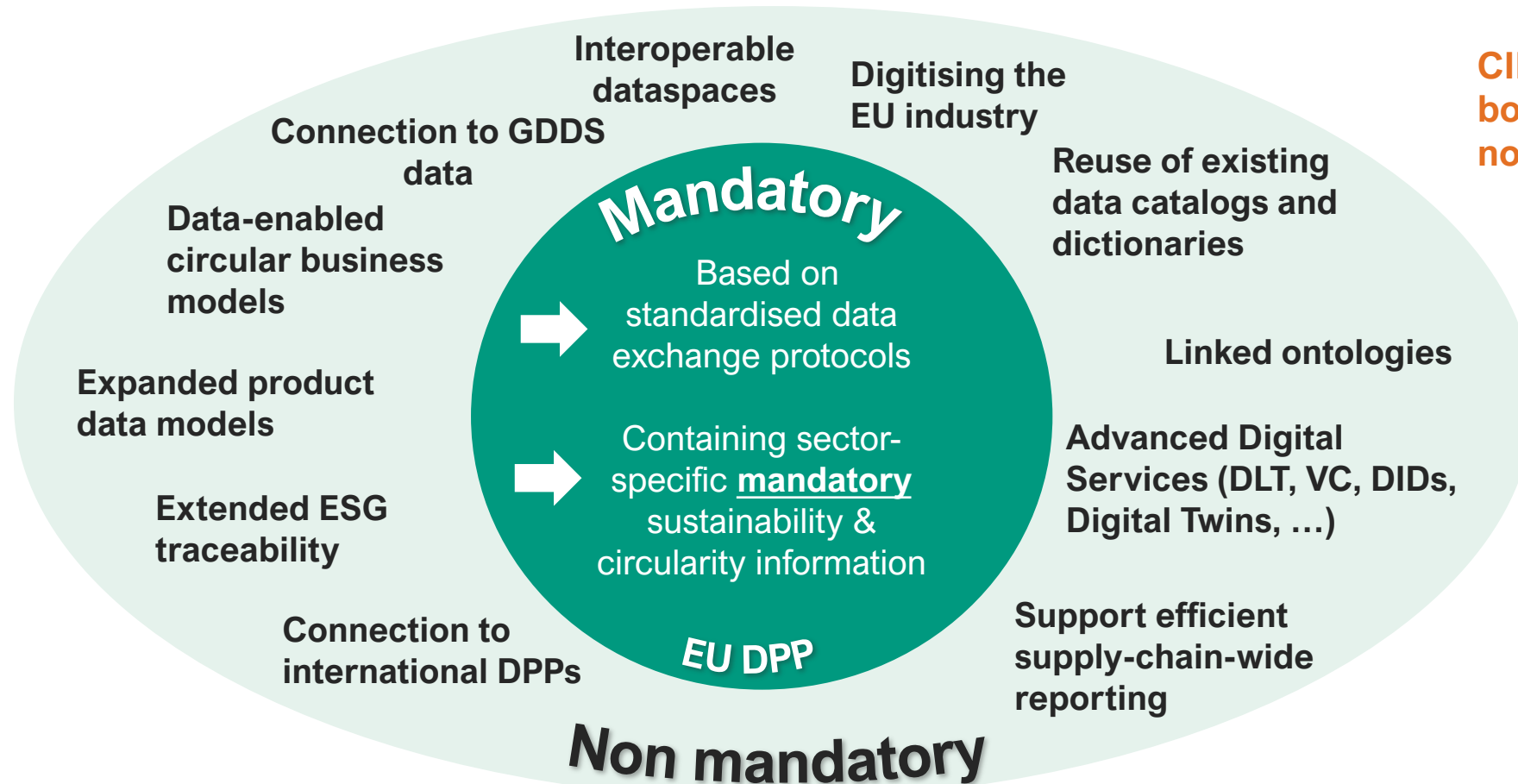
# Why is the DPP System an incredible opportunity?

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



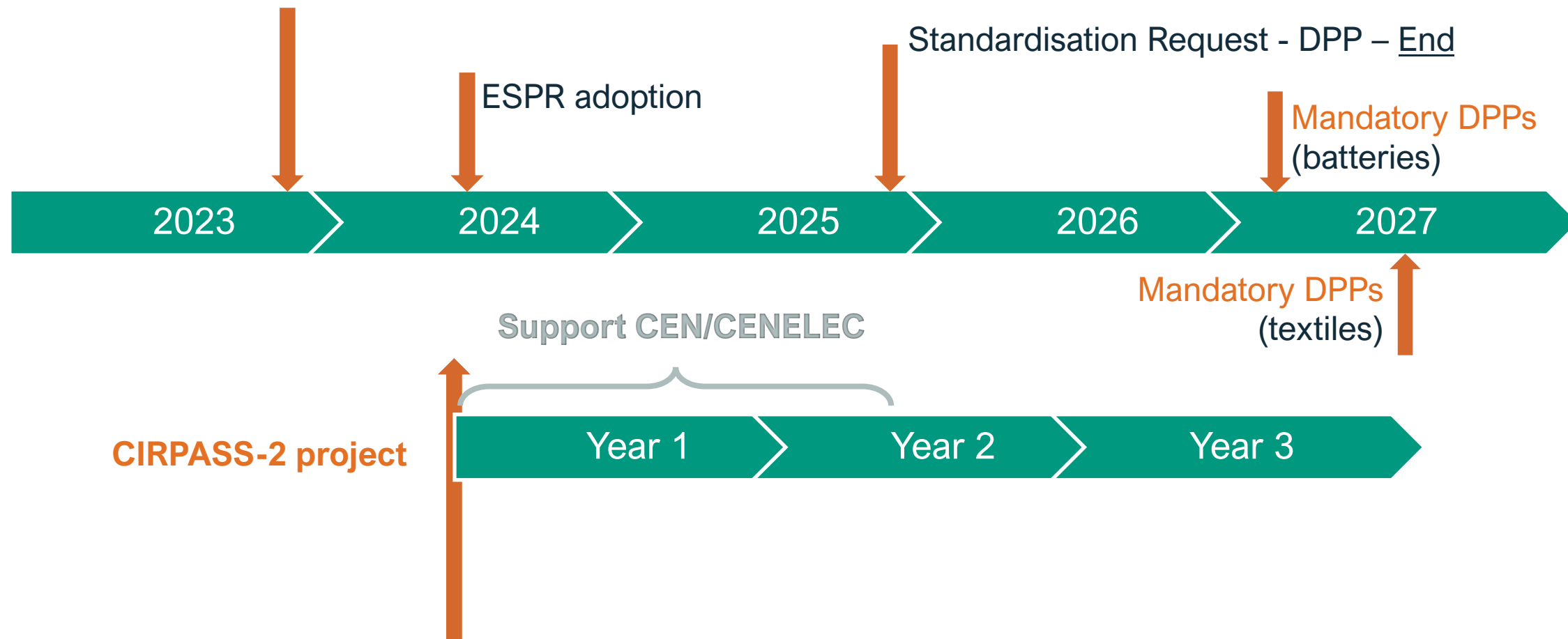
# Why is the DPP System an incredible opportunity?

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**CIRPASS-2 addresses both mandatory and non-mandatory DPPs**

# Standardisation & CIRPASS-2 - Timelines





- The DPP System is an **information system** for the Circular Economy.
  - Decentralised DPP service providers for maximum creativity (not a winner-takes-all approach)
  - Inclusive to accommodate ALL industry specificities (otherwise impossible to align on a single system.)
- Transitioning to a Circular Economy will require great **flexibility**.
- Need **mature, state-of-the-art** technologies with **built-in interoperability**.
- That can be deployed at **low-cost**.
- CIRPASS-2 is a deployment project with an objective of TRL8-9.
  - Research & Technology Organizations (RTOs) are present in the consortium for neutrality.
- The problem we are trying to solve is NOT a technology problem.
- It is a **data interoperability** problem.

# CIRPASS-2 partners



- **White:** CIRPASS partner
- **Yellow:** new partner
- **This list does not include :**
  - Pilot ecosystem partners
  - Expert working group (EWG) partners

Partner number		Shortname	Country
1	CEA	CEA	France
2	TALLINNA TEHNIKAÜLIKOO	TalTech	Estonia
3	Mindworks Industries OU	MWX	Estonia
4	DIGITALEUROPE AISBL*	DIGITALEUROPE	Belgium
5	E CIRCULAR APS	CEI	Denmark
6	F6S NETWORK IRELAND LIMITED	F6S	Ireland
7	DIN	DIN	Germany
8	VDE VERBAND DER ELEKTROTECHNIK ELEKTRONIK INFORMATIONSTECHNIK EV	VDE	Germany
9	Global Textile Scheme	GTS	Germany
10	maki Consulting GmbH	maki	Germany
11	Ekodenge Ltd	EKODENGE	Turkey
12	STIFTELSEN CHALMERS INDUSTRIEKNIK	CIT	Sweden
13	Netherlands association of applied scientific research	TNO	Netherlands
14	BioInnovationService	BioIS	France
15	TECHNISCHE UNIVERSITEIT DELFT NL	TU Delft	Netherlands
16	Energy Web AG	EWAG	Switzerland
17	ASOCIACION DE EMPRESAS TECNOLOGICAS INNOVALIA	INNOVALIA	Spain
18	CBT COMUNICACION Y MULTIMEDIA SL	CBT	Spain
19	ASOCIACION PARA DESARROLLO DE LA ECONOMIA DEL DATO	BAIDATA	Spain
20	GS1 IN EUROPE	GS1	Belgium
21	AOC Innovation	AOC	France
22	+IMPAKT LUXEMBOURG SARL	POS	Luxembourg
23	Platform Industry 4.0 Austria	PIA	Austria
24	Fujitsu	FJBE	Belgium
25	Fraunhofer IZM	IZM	Germany
26	Extra Red	EXTRA	Italy
27	Euratex	Euratex	Belgium
28	Worldline	Worldline	France
29	Physikalisch-Technische Bundesanstalt	PTB	Germany
30	Ioxio Oy	IOXIO	Finland
31	Suomen Tekstiili ja Muoti ry (Finnish Textile and Fashion)	FINATEX	Finland
32	Kezzler	Kezzler	Norway
33	EON	EON	Hungary
34	Avery Dennison Atma GmbH	atma.io	Austria
35	CIRCULAR.FASHION UG (HAFTUNGSBESCHRANKT)	circularfashion	Germany
36	TripleR	TripleR	Belgium
37	Scantrust	Scantrust	Netherlands
38	Arcelik A.S	Arcelik	Turkey
39	Digital Data Chain Consortium GbR	DDCC	Germany
40	ZVEI	ZVEI	Germany
41	Whatt.io	Whatt.io	Sweden
42	ASCDI	ASCDI	USA
43	OBADA Foundation	OBADA	USA
44	Gorenje gospodinjiski aparati, d.o.o	GOENJE	Slovenia
45	Hisense Gorenje Europe, d.o.o.	HGE	Slovenia
46	Michelin	Michelin	France
47	Cobuilder AS	COB	Norway
48	Global Electronics Council	GEC	USA
49	Textile Exchange	TextileExchange	USA

## 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](mailto:carolynn.bernier@cea.fr)

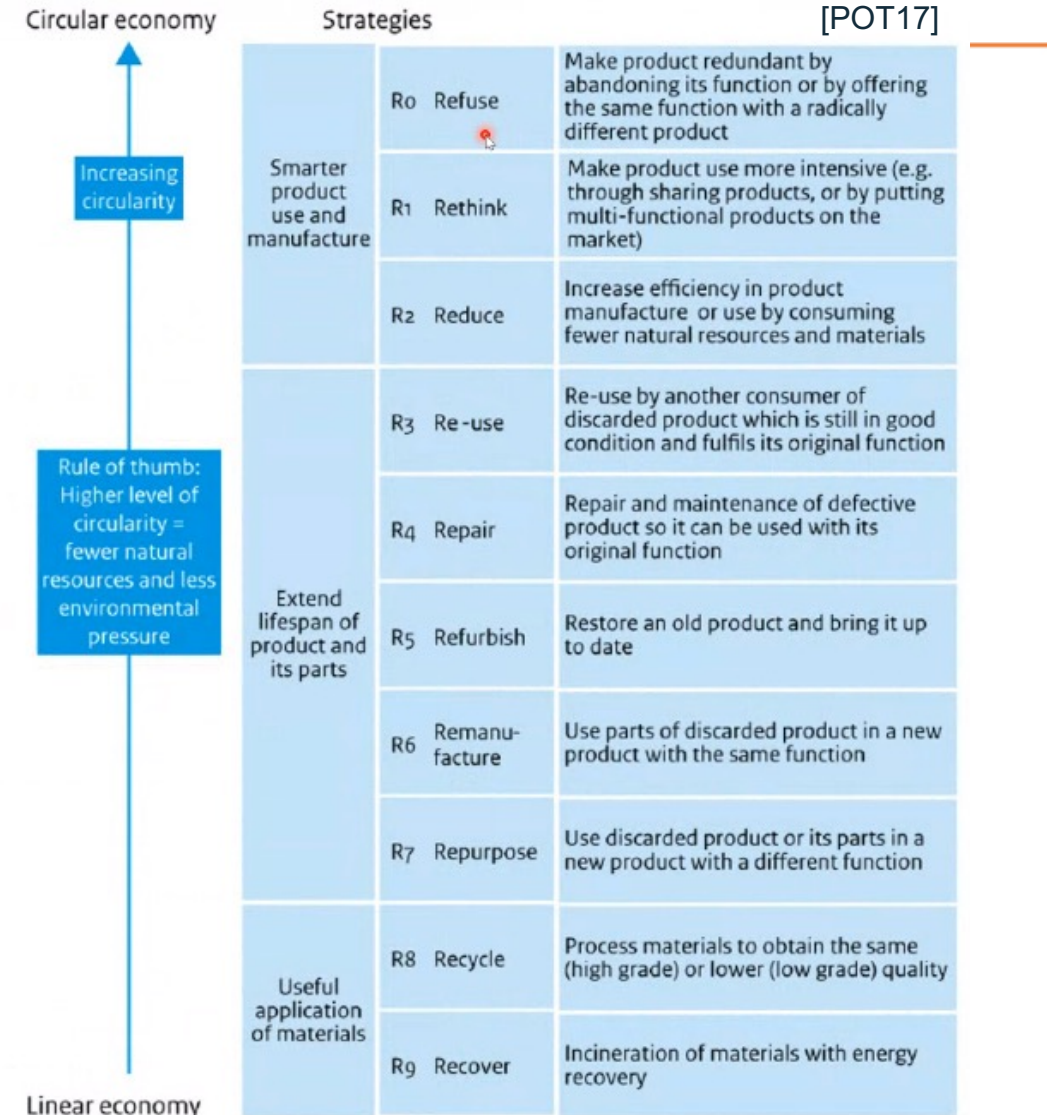
## Five Expert Working Groups:

- 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](http://www-cirpass2.eu))

# What is a “lighthouse pilot”

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

- a pilot leader,
- number of partners who will **issue** DPPs for their products,
- targeted circular economy business models and DPP **use cases** (necessarily including B2B data exchanges)
- A number of downstream B2B “R” partners, referring to circular strategies →





# CIRPASS-2 Lighthouse Pilot Ecosystems (13)

Pilot	Pilot Leader(s)	DPPaaS?	Upstream Ecosystem Typology	Targeted Products	Targeted "R" Strategies	Downstream Ecosystem typology
PA1	IOXIO	yes	STJM (Finnish Textile and Fashion Industry association), VTT (Research Institute), SITRA (Finnish Innovation Fund), 1 entreprise brand, several SME brands	Textiles - Workwear (PaaS)	Reuse, Repair, Maintenance, Remanufacturing and, eventually Recycling	Coordinated by STJM: Reuse/repair: 1 SME, 1 entreprise Reman : 1 SME Waste Collection : 1 SME Recycling : 1 SME
PA2	Kezzler	yes	Global top 10 brand, SME brand, Upstream traceability solution provider, ERP & CRM system provider, GS1	Textiles - Fashion	Reduce, Reuse, Repair	Retailer, Inventory management system provider Refurbish : Supply-chain management operator Repair : SME repair service Reuse : Resale Service Platform Recycler : Sorting and recycling operator
PA3	EON	yes	PVH (entreprise), SME fashion brand	Textiles - Fashion	Resell, Collection, Sorting and Recycling	Collecting, sorting, re-selling, and recycling : 1 SME
PA4	atma.io, circular.fashion	yes	2 entreprise brands/retail, B2G data model consultant	Textiles - Fashion & Sportswear	Resell, Repair, Sorting, Recycle, Circularity validation	Sorting technology provider : SME Sorting : 1 entreprise, 1 SME Repair, upcycle : 1 SME
PA5	TripleR	yes	6 mattress manufacturers, DPP platform provider	Textiles - Mattresses	Collectors, Remanufacturers/Refurbishers/Dismantlers and Recycling	Refurbish : 2 SME
PA6	Scantrust	yes	label provider, interoperability partner, 6 SME producers, 1 mid-size producer, 1 industry association	Textiles - Bedding, shoes (Electronics)	Reuse, Recycle	Recycling : 1 SME
PB1	Arcelik	no	Arçelik A.Ş	Electronics - Vacuum Cleaners	Reuse, Re-sell, Repair, Refurbish	Arçelik A.Ş
PB2	DDCC, ZVEI	yes	DDCC consortium partners (>50 OEMs & owner/operators)	Electronic & electrical equipment	Reuse, Repair, Refurbish, Remanufacture, Repurpose	DDCC owner/operator partners and ZVEI member companies
PB3	Whatt.io	yes	2 brands, Importer	Electronics - Audio and Emergency Lighting Equipment	Repair, Maintenance, 3D parts manufacturing	Maintenance : commercial building staff Repair : 2 additive manufacturing labs
PB4	OBADA/TBS	yes	ASCDI (trade association and marketplace, trust anchor for its members)	Electronics - IT equipment	Repair, Recycle	2 B2B marketplace
PB5	EcoWise	yes	Gorenje (manufacturer)	Electronics - Tumble Dryers	Repair, Refurbishment, and Recycling	1 end of use collector
PC1	Michelin	no (?)	Industry governance body, 2 ecoorganisms	Tyres	Remanufacturing, Recycling	2 retreaders, 2 collectors, 1 recycler, 1 sorting technology provider,
PC2	Cobuilder	yes	2 manufacturers, eco-organism, legal expert	Construction products	Reuse, Repair, Refurbishing, Repurposing, Recycling	Contractors, quality control

## ■ CIRPASS-2 pilots have committed to

- Participating, along with the other sector partners, towards building a common sectoral upper-level ontology aligned with the DPP System ontologies
- Communicate widely on their implementation effort, challenges & **lessons learned**
- **Accept the risk** and required agility needed to adapt to fluctuating standards landscape
- Respect the high variety of DPP solutions and not try to impose their solution
- Accept CIRPASS-2 Intellectual Property rules (primarily open source developments)

# Thank you!

[www.cirpass2.eu](http://www.cirpass2.eu)

Contact us : [info@cirpass2.eu](mailto:info@cirpass2.eu)



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