

INTRODUCTION:

DIGITAL PRODUCT PASSPORT

INTRODUCTION & PRESENTATION

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supply chain consulting | www.accentis.org

Digital Product Passport

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CoP Member

CIRPASS 2
Digital Product Passport

ENVIRONMENTAL
IMPACTS ACADEMY

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DPP
OVERVIEW

THE EU IS INTRODUCING A WAVE OF NEW REGULATIONS

ESPR

Battery Passport

CPR

Toy Safety

EPR

EUDR

EmpCo

REACH

PPWR

MDR

RED

CSRD

SCDDD

AGEC

VerpackungG

DPP DEFINITION, SCOPE & PURPOSE

Definition

- A digital Product Passport is an electronic record for all essential information about a product maintained from its creation to end-of-life to enhance the traceability.
- It also encompasses the needs to be accessible to different actors, each requiring specific information to unlock benefits, uses-cases and value across the entire ecosystems.



Scope

- All physical products placed on the market or put into service within the EU
- To be deployed category by category. Some exceptions (food, pharmaceutical, veterinary,...)

Purpose

- Increase product transparency
- Promotes circular economy
- Facilitates compliance & monitoring
- Enhancing end-2-end traceability of product throughout its value chain by making relevant information accessible
- Making it easier for consumers, manufacturers and authorities to make informed decisions related to sustainability, circularity and regulatory compliance.

EU REGULATIONS PER INDUSTRIES



ESPR | DPP

Eco-design for Sustainable Products Regulation

Mandatory for many product categories, rolled out progressively.

A delegated act will follow for each product categories **starting from H2 2027.**



EUBR | Battery Pass

European Battery Regulation

(UE) 2023/1542

Mandatory for industrial batteries (capacity **› 2 kWh**), electric vehicle (EV) batteries, and batteries for light means of transport (LMT).

Mandatory from **February 18, 2027** (according to Article 77 of the Battery Regulation).



CPR | Construction

Construction Product Regulation

(UE) 2024/3110

Mandatory for all construction products placed on the EU market.

Includes: The Declaration of Performance and Conformity (**DoPC**).
The digital DPP register will be operational by **July 18, 2026**. The concrete application of the DPP requirements is **expected from 2027** progressively.



New TOYS SAFETY REG.

Replacement of 2009/48/EC

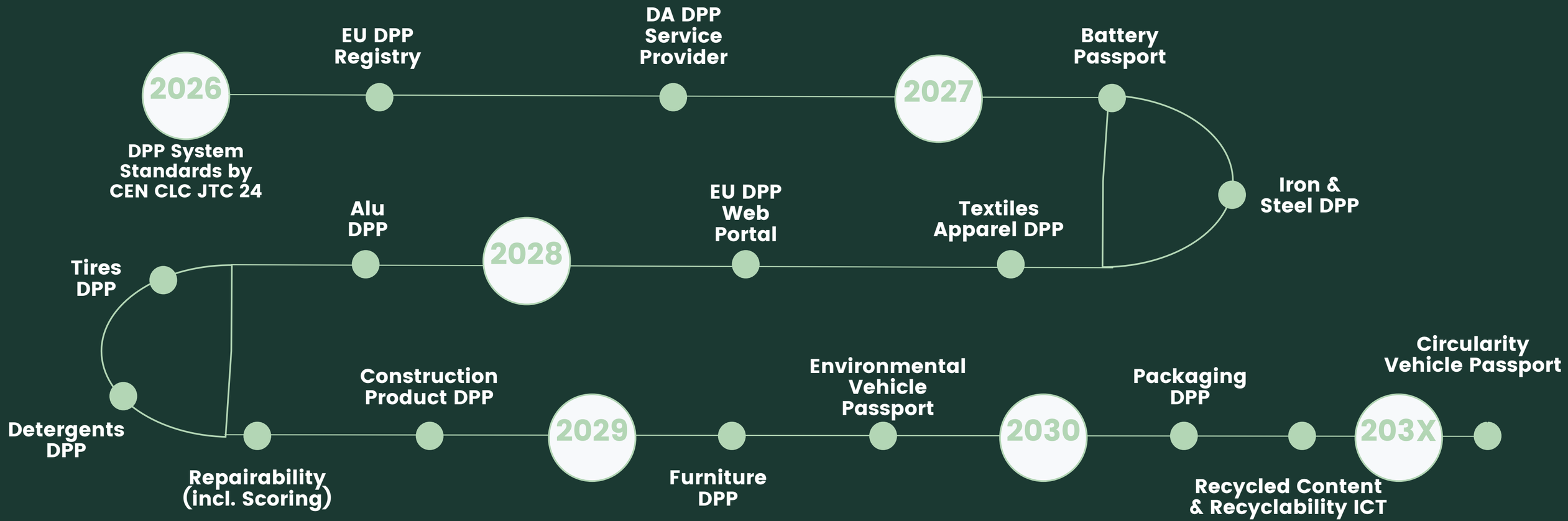
October 13, 2025: The new EU Toy Safety Regulation was officially adopted

DPP for toys including key safety information, which will facilitate customs control, market surveillance and prevent unsafe toys sold online and offline from entering the EU.

Other product caterogies to come!

THE DELEGATED ACTS ARE COMING!

Timeline across concerned product segments and regulations



EU LEGISLATIONS

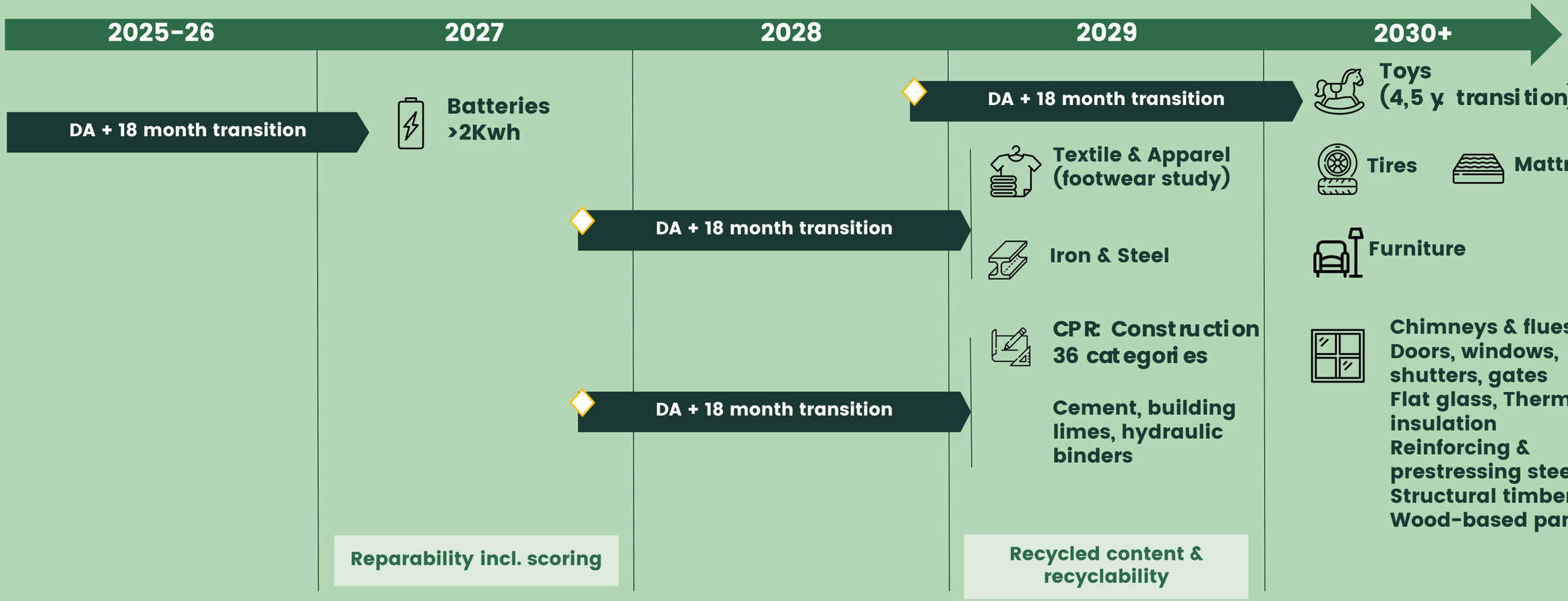
The latest release of the ESPR working plan has defined the product impacted by DPP

ESPR | DPP
Ecodesign for Sustainable Products Regulation

EUBR
European Battery Regulation
(UE) 2023/1542

CPR
Construction Product Regulation
(UE) 2024/3110

NEW TOYS SAFETY REG.
Safety regulation



2035+: UP TO 90% OF SOLD PRODUCTS

By 2035: additional categories will be added (planned, but not confirmed)

ESPR & EUBR & CPR & TOYS

Possible extensions

2030 +

Hygiene Products 	**Cosmetics** 	**Reinforcing steel & non-ferrous metals** 	**Paper & Cartons** 	**Sealants · Cables · Sanitary · Paints** 
Fishing equipment 	**Footwear** 	**Product related to concrete, mortar and grout** 	**Insulation** 	**Lubricants** 
Glass 	**Chemicals** 	**Windows & doors** 	**Cement, building lime, and hydraulic** 	**Plastics** 

SUNRISE PROJECT | GS1

TODAY: PAPER & LIMITED



Bar Code



Packaging



Customer

TOMORROW : DIGITAL & CIRCULAR

DPP & SUNSET PROJECT



Producer





Customer



Usage



Re-commerce

Create the product & record relevant data in the DPP (origin, composition, usage, recycling information)

Access DPP to review product characteristics, use, maintenance & repair

Generate dynamic Data to be integrated into DPP

Use DPP data to identify how to properly recycle or recover material from the product

KEY DPP DESIGN ASPECTS – ROLES

EU CENTRAL SERVICES

- DPP REGISTRY
- DPP WEBPORTAL

AUTHORITIES

- CUSTOM AUTHORITIES
- MARKET AUTHORITIES
- SAFETY AUTHORITIES

RESPONSIBLE EO

- DPP SP & BACK-UP
- DPP INFORMATION
- SC OPERATORS

USERS

- PRODUCT
- BRAND
- MARKETING
- AUTHENTICATION & OWNERSHIP

RE-COMMERCE

- REPAIR
- REUSE
- RECYCLE
- RESALE

⚠ CONFIDENTIALITY OF INFORMATION

DPP & THE PRODUCT LIFECYCLE

2. PRODUCT & DATA SPECIFIC

3. MULTI-ACTORS ACCESS

4. NEW BUSINESS MODELS

1. PRODUCT TRACEABILITY

5. SUPPORT CIRCULAR BUSINESS MODELS

6. ECODESIGN



DPP AS A CORNERSTONE

Due to its wide coverage, DPP is becoming the cornerstone for most companies to navigate and structure current and future data requirements

EU regulations

1.EU ESPR & EU DPP
2.EU EPR (Extended Producer Responsibility) for Packaging (PPWR), Electronics (WEEE), EU Batterie Regulation (2023/1542) & Fashion
3.EU CPR (Construction Product Regulation) & DoPC (Declaration of Performance and Conformity)
4.New Toy Safety Regulation (Oct. 2025)
5.EU Deforestation-free Regulation (EUDR)

Local regulations

1.FRANCE : Anti-Waste Law for a Circular Economy (AGEC)
2.GERMAN Supply Chain Act (LKSG)
3.NORWEGIAN Transparency Act
4.US: New-York Fashion Act
5.US: Uyghur Forced Labor Prevention Act (UFLPA)
6.Chinese Stock Exchange Double Materiality
7.Other DPP regulation (Chinese, Vietnam DPP)

DPP

EU Reporting

1.EU ESR | ESG
2.EU CSR
3.LCA (Lifecycle Analysis)
4.CFP (Carbon footprint)
5.EU CBAM (Carbon Border Adjustment Mechanism)
6.Labels (Energy, other)

Interoperability / Norms & Dictionary

1.CEN-CENELEC | ISO : 59004 Circular economy Iso family 59014 | 59010 | 59020 | 59040
2.PCDS: Datasheet
3.GTIN | GS1 Datalink | GLN | EPCIS & RFID
4.UN-TP
5.Tariffs regulation

Integration with ERP | PLM | PIM | WMS | TMS | T&T | CMMS | CRM | More

1. Regulatory Context

2. Market Context

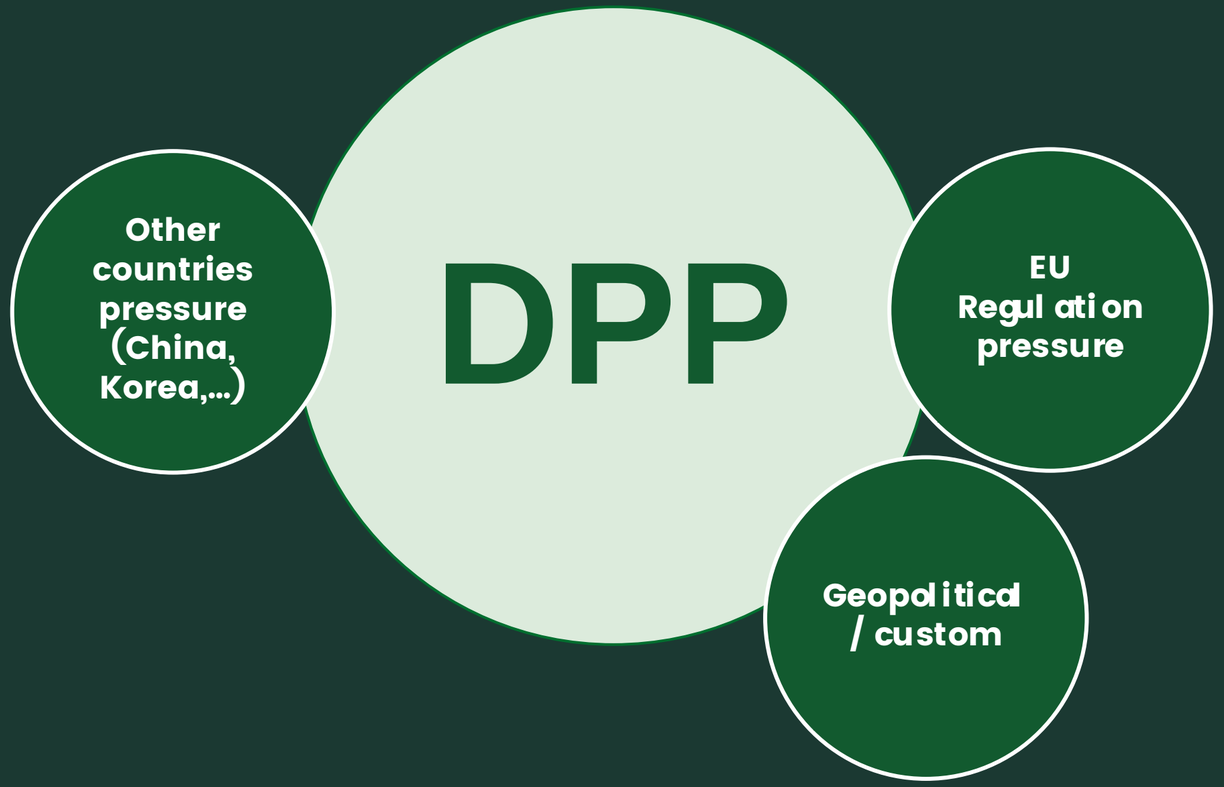
3. Technology Context



1. Regulatory Context

2. Market Context

3. Technology Context



1. Regulatory Context

2 Market Context

3. Technology Context



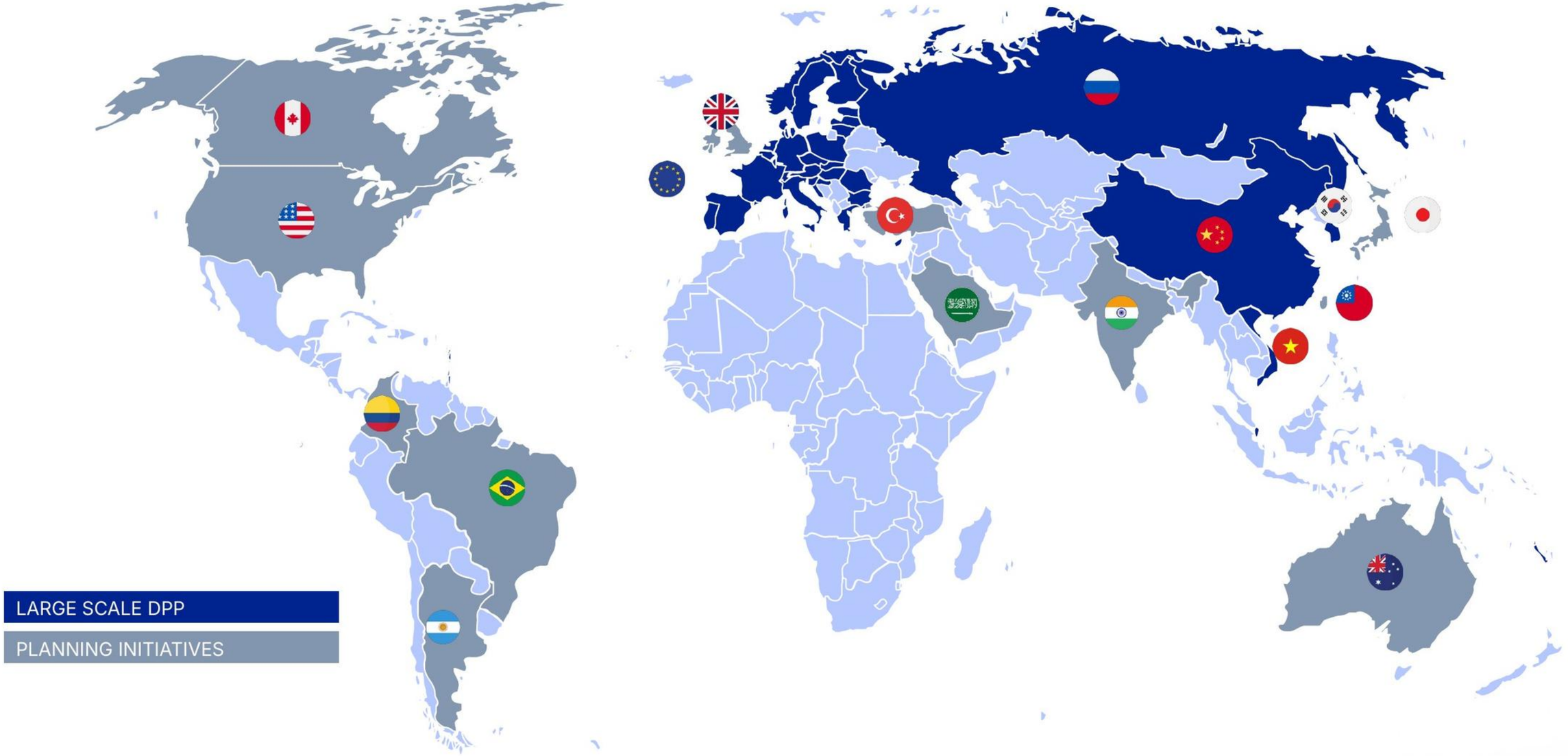
1. Regulatory Context

2 Market Context

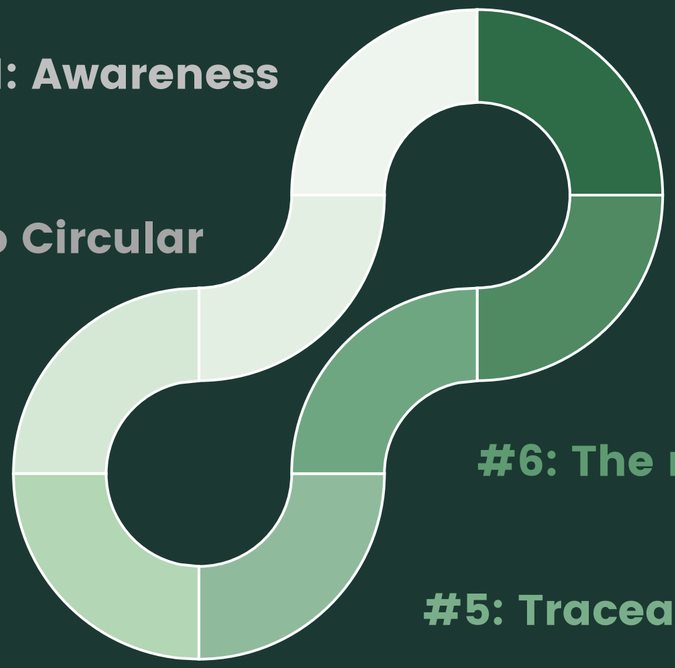
3. Technology Context



DPP WORLWIDE INITIATIVES



THE 8-CHALLENGES OF DPP



#1: Awareness

#2: From Linear to Circular

#3: Large DPP perimeter & team

👉#4: Scattered Data sources

#5: Traceability

#6: The right technologies

👉#7: Interoperability

#8: Benefits

#4 DATA PERIMETER

Challenges are all along the DPP scope. A Few examples :

Traceability	⚠️ Challenge to get Supplier's information ›› Traceability is a foundation
Circularity	⚠️ Eco-score (CO2, water, ...) even for small companies ⚠️ The emerging ecosystems are not yet profitable.
Added value Services	⚠️ Plan evolution of business models and services ›› From Ecodesign to Paas
Compliance & Reporting	⚠️ Complexity of evolving requirements ›› ESPR delegated Act not yet signed
Data Carrier	⚠️ Anticipate future traceability potential requirements ›› Unique item traceability should be investigated
Data Integration	⚠️ Build internal and external connections ›› Consider DPP as a compliance cornerstone

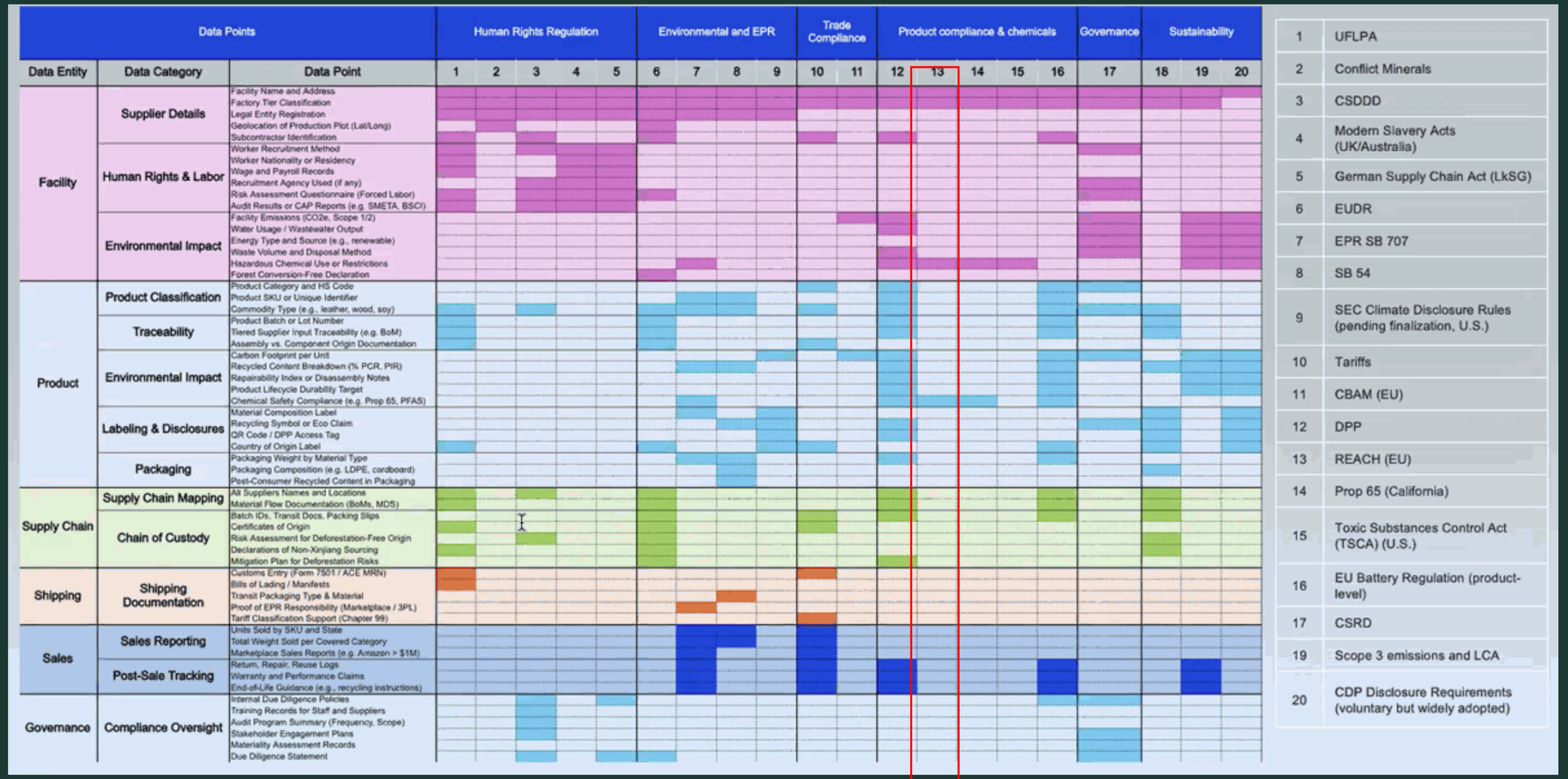
#4 DATA RESPONSIBILITY

A DPP project involves organizations across the entire company



#4 DATA SHARING

A unified data framework offers a significant advantage: the Digital Product Passport (DPP) integrates extensive data, much of which is also mandated by other regulations.



#7 DATA INTEROPERABILITY & STD

Published 27 May 2026 by CEN-CLC/JTC 24 under Standardization Request M/604 – the EN 1821x series supporting the EU Digital Product Passport (ESPR)

01
Data exchange protocols

EN 18216:2026

02
Unique identifier

EN 18219:2026

03
Data Carriers

EN 18220:2026

04
Data storage, archiving & persistence

EN 18221:2026

05
APIs for product passport lifecycle management & searchability

EN 18222:2026

06
System interoperability

EN 18223:2026

07
Access rights, system security & business confidentiality

FprEN 18239:2026

08
Data authentication, reliability & integrity

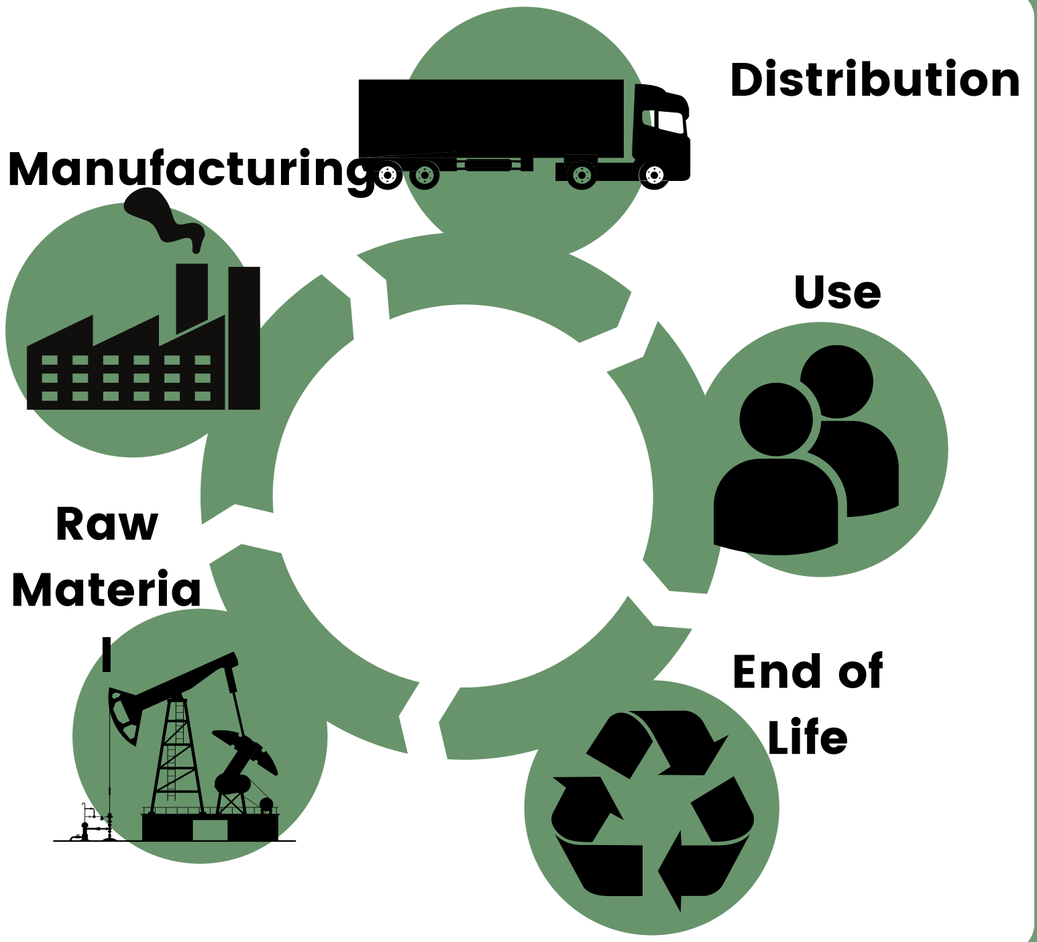
Data authentication, reliability & integrity

Source CEN CENELEC https://standards.cencenelec.eu/ords/f?p=205:32::::FSP_ORG_ID:3342699


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DPP is the passport —
but LCA is where most
of the environmental
data comes from


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What?

Life Cycle Assessment

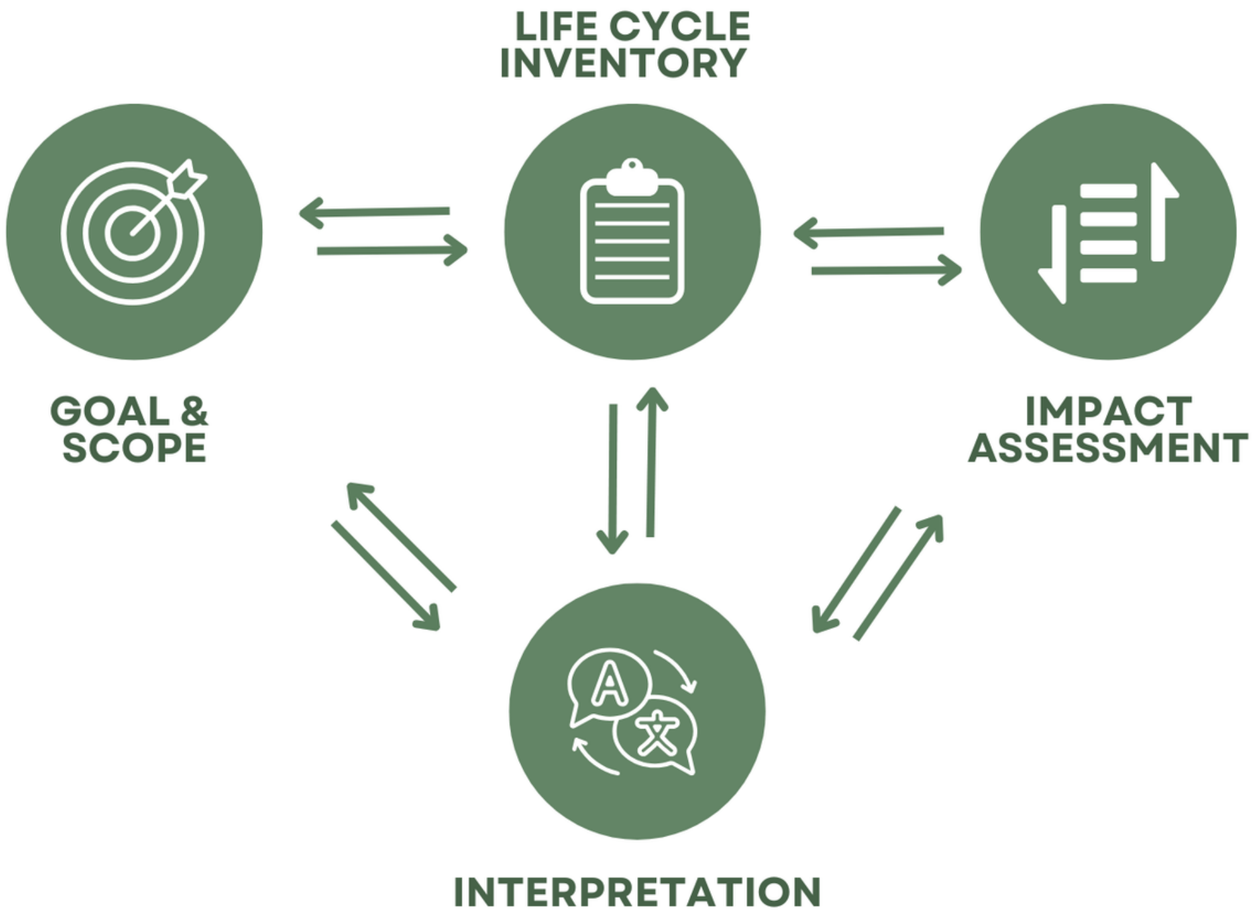





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How?

THE 4 STUDY PHASES

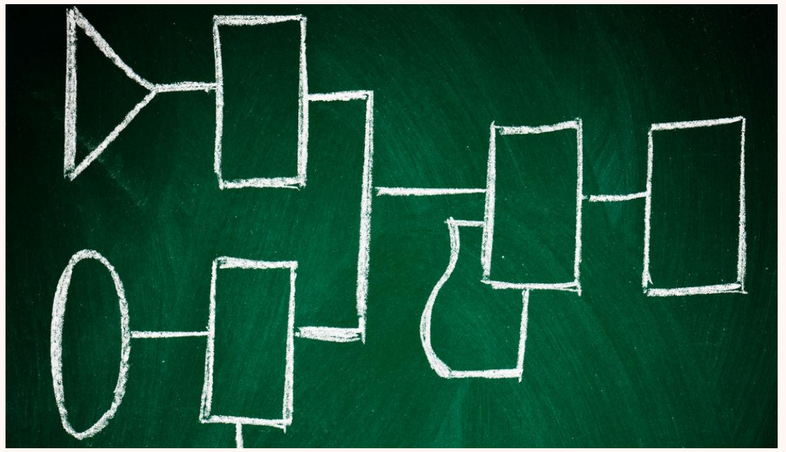
ENVIRONMENTAL
IMPACTS ACADEMY

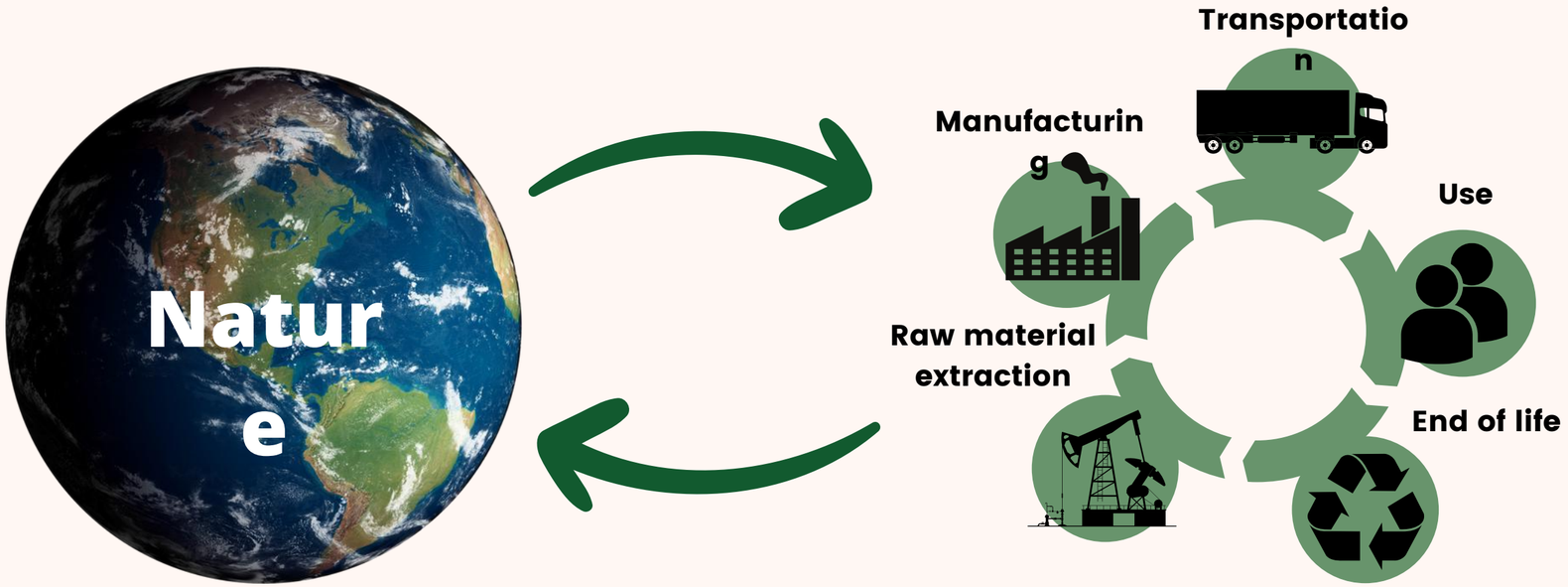


MODEL YOUR LIFE CYCLE

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Materials
Processes
Exchanges with Nature





Data - the hard part

ENVIRONMENTAL IMPACTS ACADEMY

Primary data:

Own company internal
Suppliers
Customers
-> collaboration

Databases





LCA, PCF OR EPD?

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LCA

ISO 14040 and 14044
Can be done quickly for internal purposes, or full Critically Reviewed LCA for external communication.

PCF

ISO 14067
Similar to LCA.
Focus on only Global Warming Potential.

EPD

ISO 14025 + relevant other standards.
Intended for external communication and comparison. Strict product category rules, always 3rd party verified

INSIGHTS FROM LCA
NOT JUST RESULTS

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Materials
Processes
Energy
Water
Use stage impacts
Waste mgmt / Reyclability

FROM EPD TO DPP

	EPD ● EPD : Environnemental Performance Declaration	DPP ● DPP : Digital Product Passport
Standard	ISO 14025 · EN 15804 (ACV ISO 14040/44)	ESPR Reg. 2024/1781 · Reg. Batteries 2023/1542 CPR | Toys safety | ...
Format	Vetted Static Report (PDF)	QR / NFC / RFID Human & machine readable
Validity	Fixed (5 years from verification)	Access during product lifecycle + 10 years and even more per specific regulations (CPR)
Perimetre	Environmental performance	Materials, origin, Carbon footprint, reparability, recycling, EPD
Usage	RFI/RFQ, Voluntary basis	Mandatory : EU market access & Registry

GET STARTED

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Needed skills & capabilities, in-house or external

Data collection process

Ownership!



Quote: "My expectation was to be able to build LCA models for our products, and I’m happy to say that I’ve achieved that
The Flex version of the training program was more suitable for me, especially since I had more time to complete and study the material. I also appreciated the real-life projects, which gave a more practical experience.”



Katarina took our Hands-on LCA training program and completed an LCA, to help BEL PS prepare for DPP requirements

Katarina did an LCA for their highest volume product and she got valuable experience of what it means in practice to do an LCA study

Bel Power Solutions designs, manufactures and markets a broad array of products that power, protect and connect electronic circuits.

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IN-HOUSE SKILLS

ENVIRONMENTAL
IMPACTS ACADEMY



LCA BASICS GROUP TRAINING

Awareness & buy-in from your organization



HANDS-ON LCA TRAINING PROGRAM

Full skills to do ISO 24044 compliant LCAs



EPD PRACTITIONER TRAINING

Next level,
Build on LCA skills to create EPD’s

PRODUCT ENVIRONMENTAL DATA & INSIGHTS

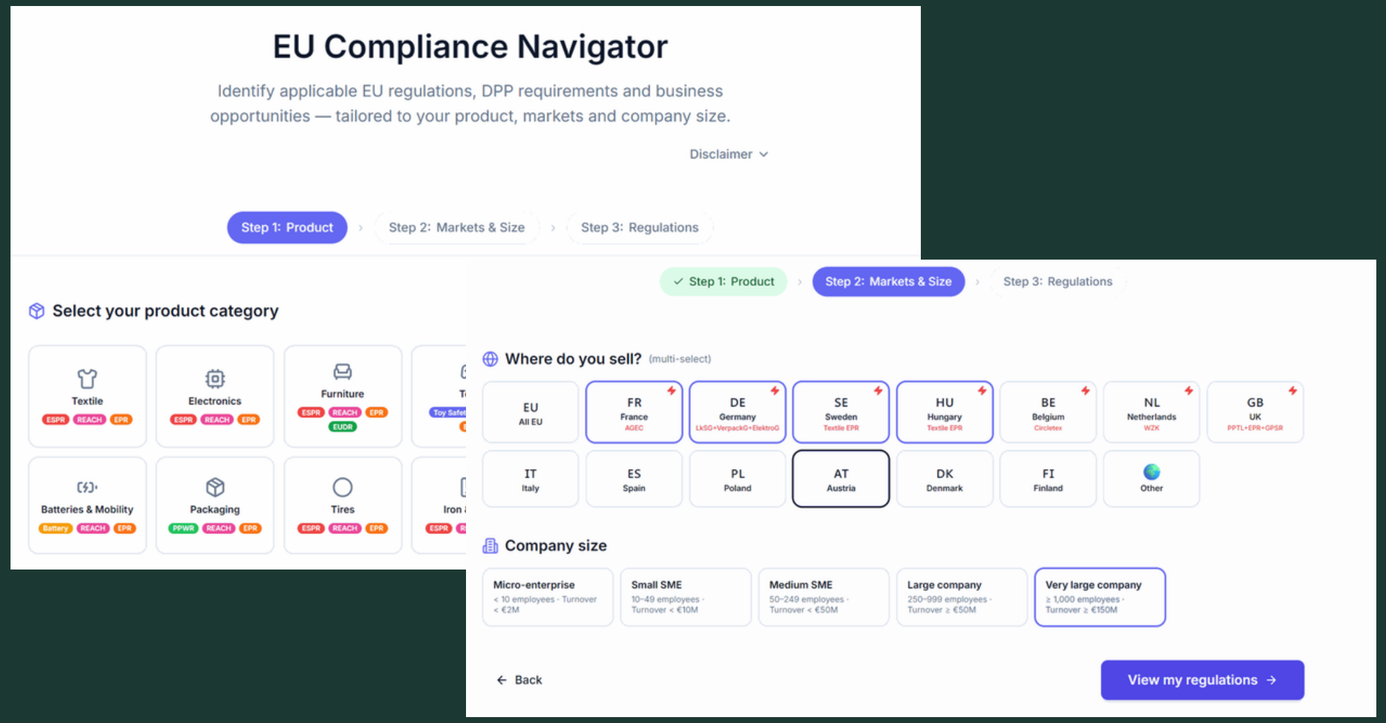
ENVIRONMENTAL
IMPACTS ACADEMY

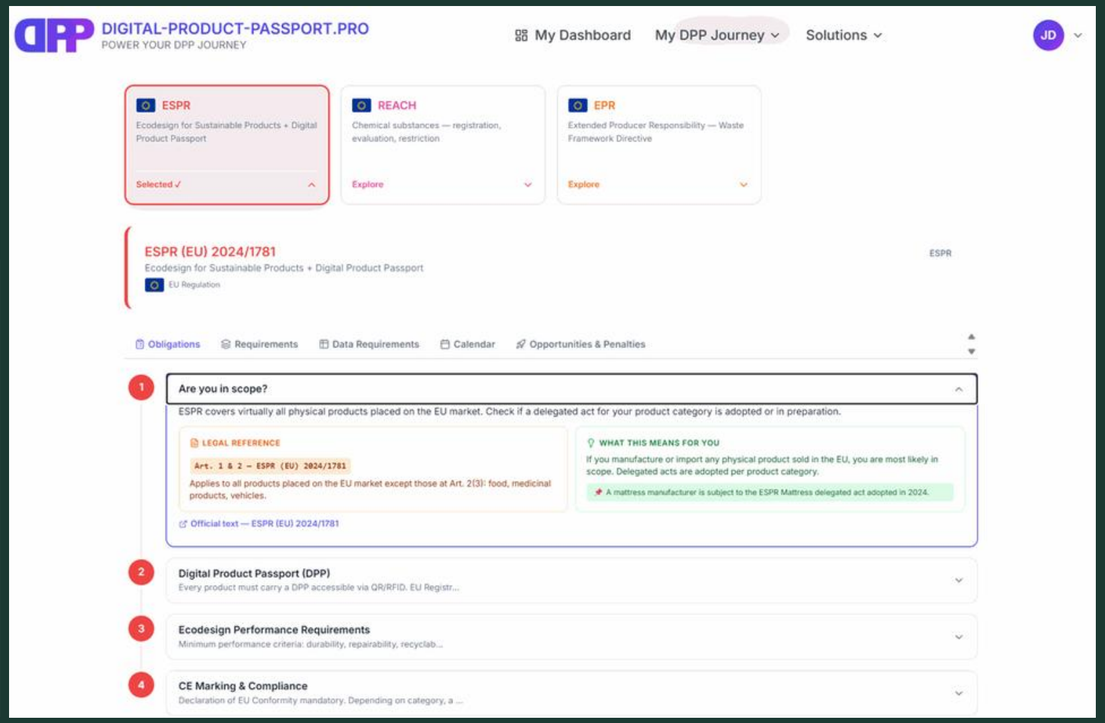
An ongoing process

Not a one-off project

DPP COMPLIANCE NAVIGATOR

Our Extra Tool Service for you to self-check regulation relevancy.





https://digital-product-passport.pro/compliance-navigator

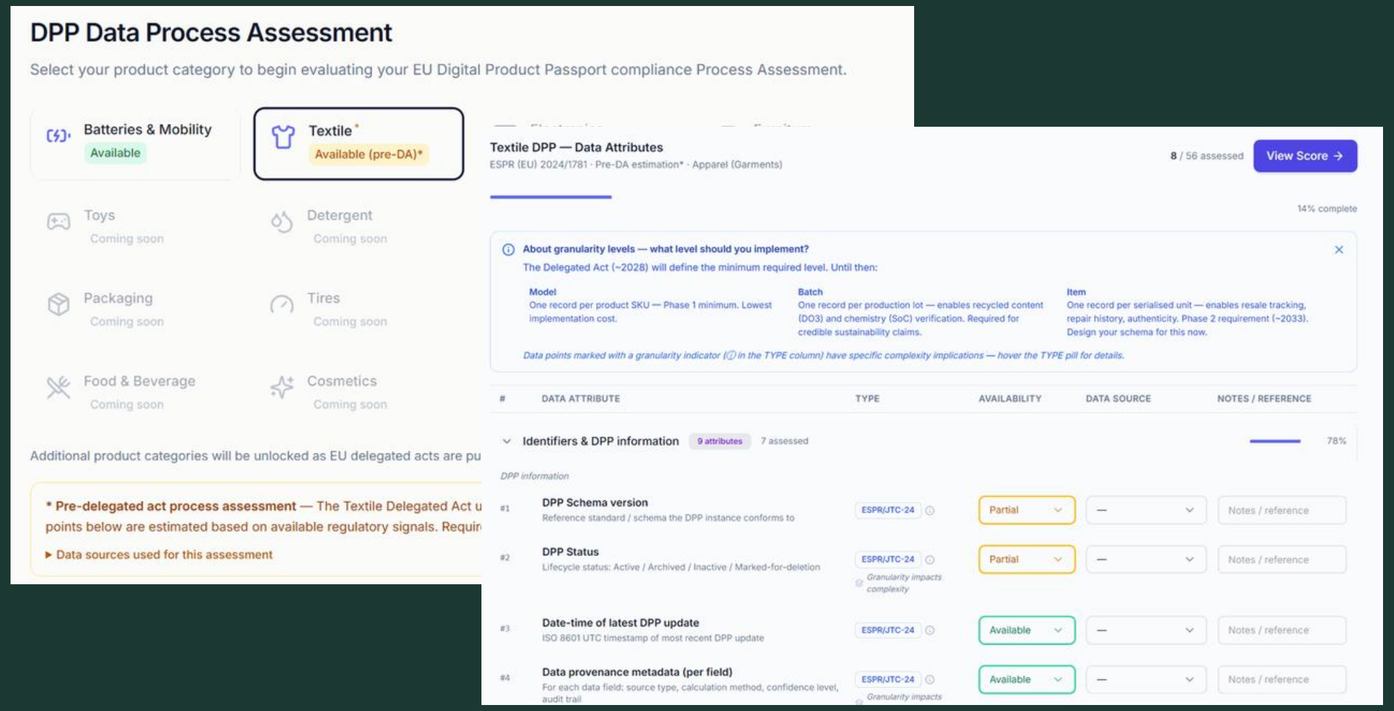
Understand relevance

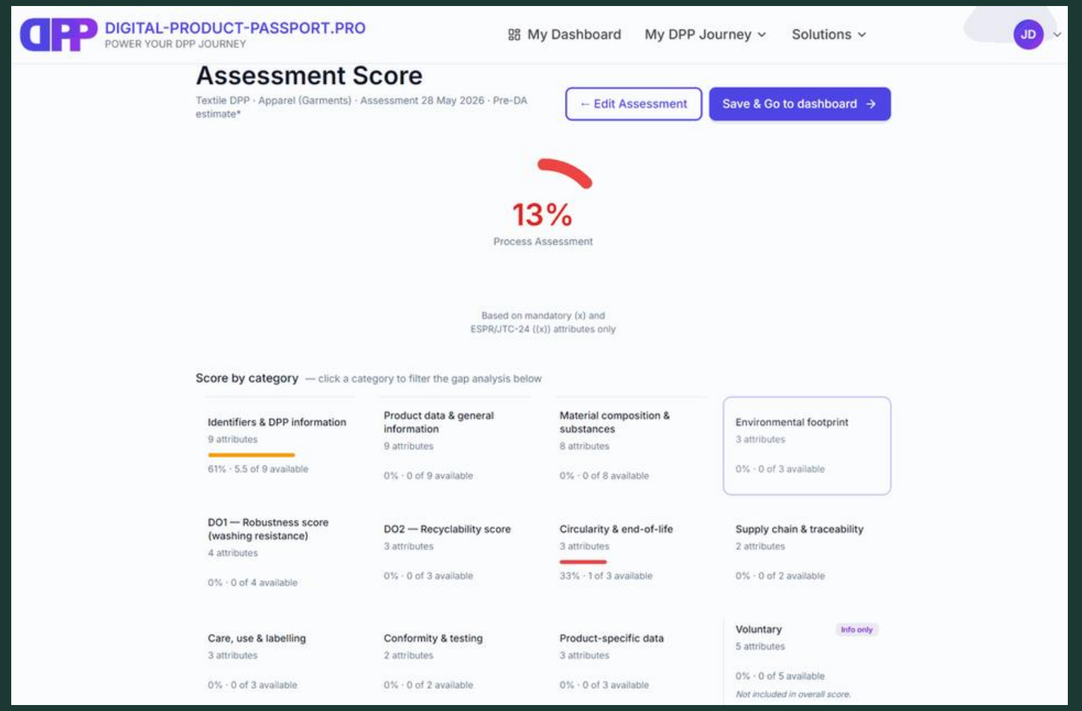
Understand timing

Understand implications

DPP DATA READINESS

Our Extra Tool Service for you to self-check DPP data readiness





https://digital-product-passport.pro/assessments

Assess current readiness

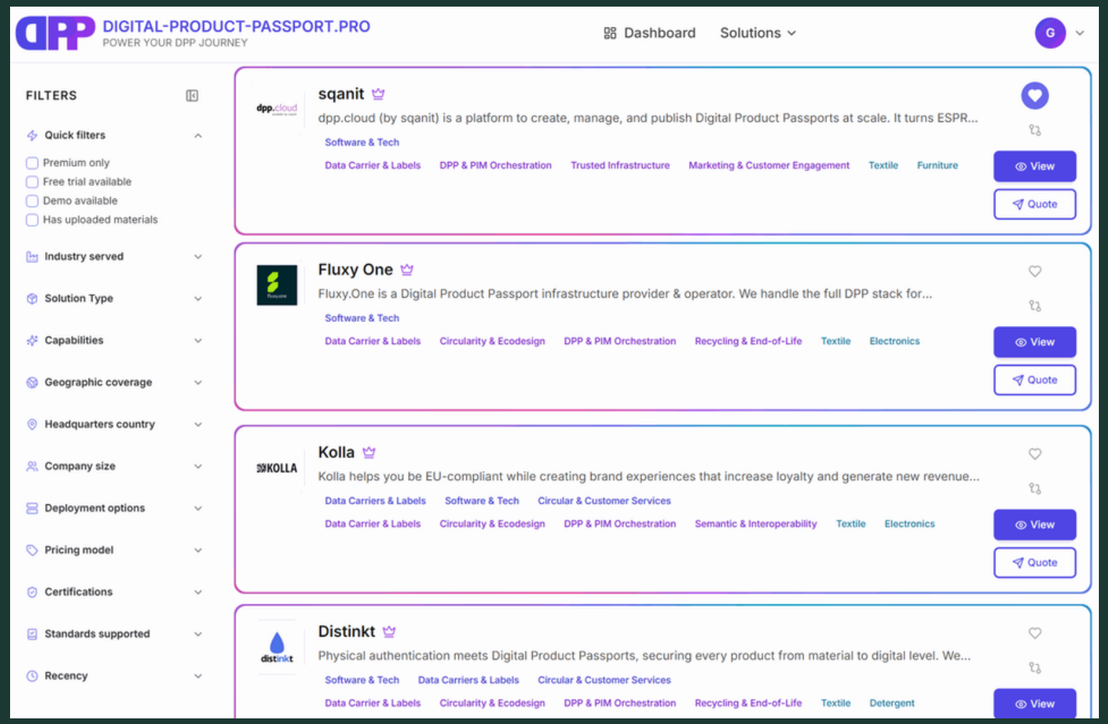
Identify critical gaps

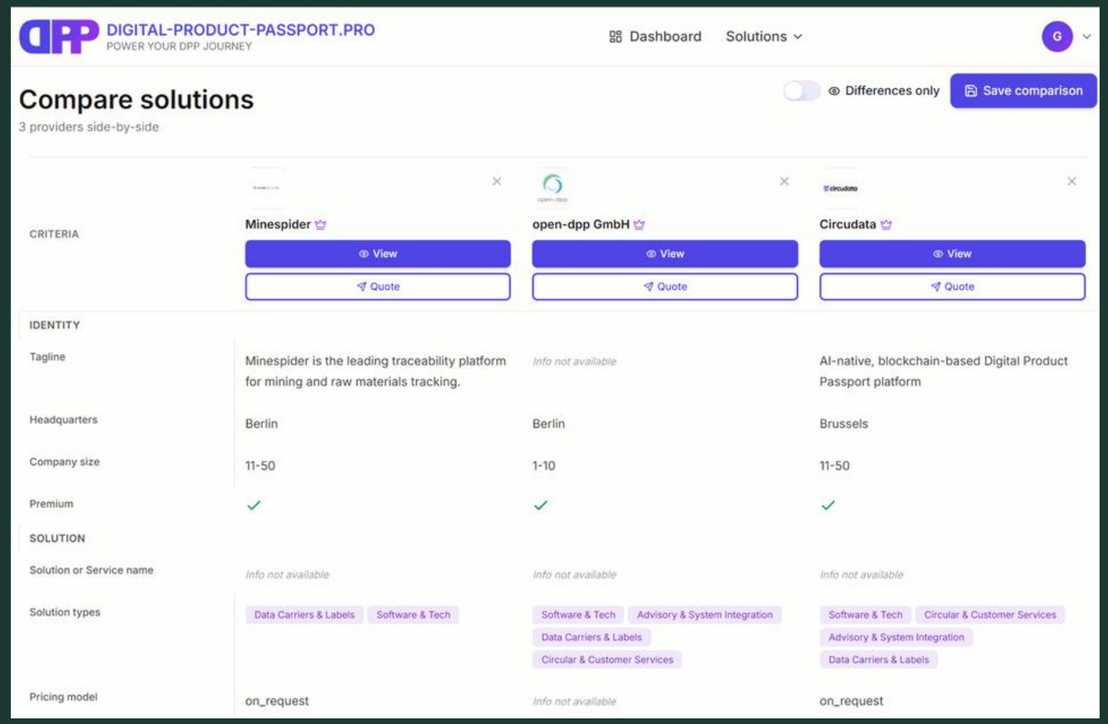
Prioritise actions

Track progress over time

DPP SOLUTION DIRECTORY

Compare capabilities before comparing individual vendors!





https://digital-product-passport.pro/directory

Explore the landscape

Compare solutions objectively

Identify capability fit

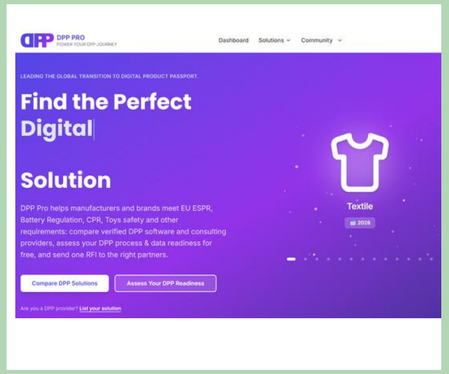
Accelerate evaluation


IMPLEMENTATION &
SERVICES

OUR DPP APPROACH

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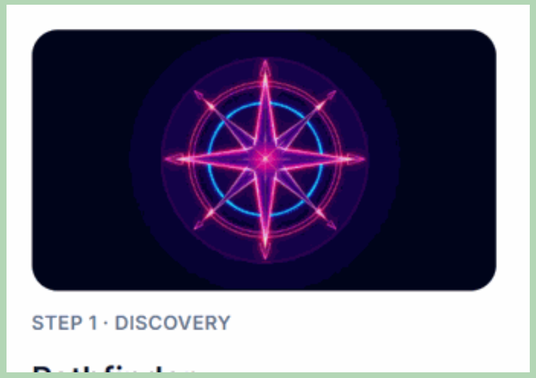
DPP PRO
POWER YOUR DPP JOURNEY



Free portal
All about DPP

1

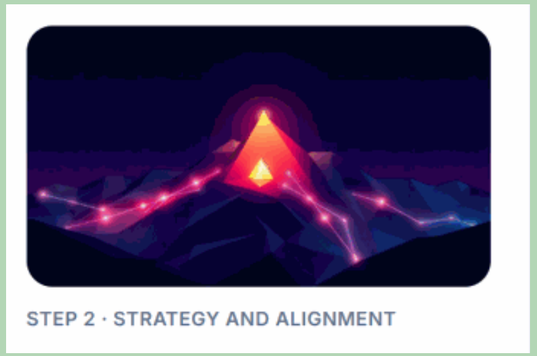
PATHFINDER



Understand

2

BASECAMP

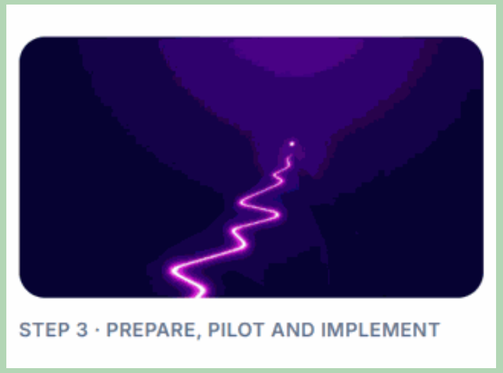


Clarify & align

hub.digital-product-passport.pro/basecamp

3

SHERPA PROGRAM



Pilot
Improve & Deploy


ENVIRONMENTAL
IMPACTS ACADEMY
Q&A


ENVIRONMENTAL
IMPACTS ACADEMY
Thank you!