



RINGO

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(01) 07640139530004



Supplier Identifier

Product Identifier



(01) 07649997749511
(10) 012393021

Carbon Steel Decarbonisation Progress



Embodied
carbon
emissions:
Method:

Total CO₂e

ISO 14040/44 etc

Scrap
Content
(%)

Disclaimer

Die in dieser Präsentation enthaltenen Informationen dienen dazu, unseren aktuellen Kenntnisstand zur Europäischen Verordnung über nachhaltige Produkte (ESPR) auf „wie vorliegend“ und „wie verfügbar“-Basis darzustellen. Viele Einzelheiten sind nach wie vor unklar und wurden bislang weder durch Normen noch durch Rechtsakte abschließend geklärt.

Ziel dieser Präsentation ist daher ausschließlich, eine überblicksartige Zusammenfassung der zum Zeitpunkt der Erstellung verfügbaren Informationen zu geben. Sie stellt keine vollständige und detaillierte Darstellung aller rechtlichen Aspekte der ESPR dar.

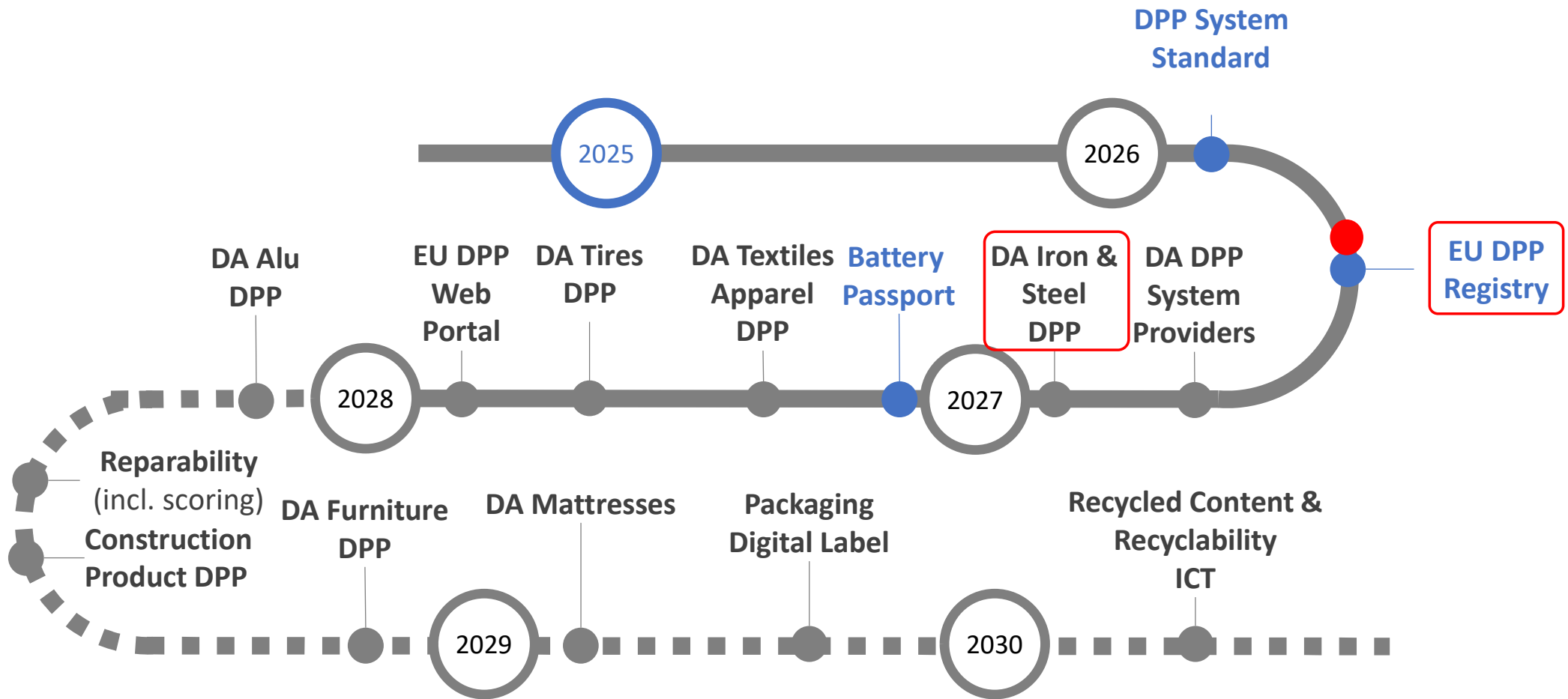
GS1 Switzerland lehnt im größtmöglichen, nach geltendem Recht zulässigen Umfang jegliche Gewährleistungen und Haftungen ab – einschließlich, aber nicht beschränkt auf wirtschaftliche Schäden, die aus Entscheidungen resultieren, die auf Grundlage der in dieser Präsentation enthaltenen Informationen getroffen werden.

CEN/CENELEC DPP Standards

Unique Identifiers	Data Carriers	Access Rights Management	Interoperability
Data Processing and Exchange	Data Storage and Archiving	Data Authentication and Integrity	APIs for Lifecycle Management

- 8 Standards **ready**
- **6 of them already approved.** 2 are being voted upon right now
- **Publication in OJEU** approx. in September

Timeline as per today

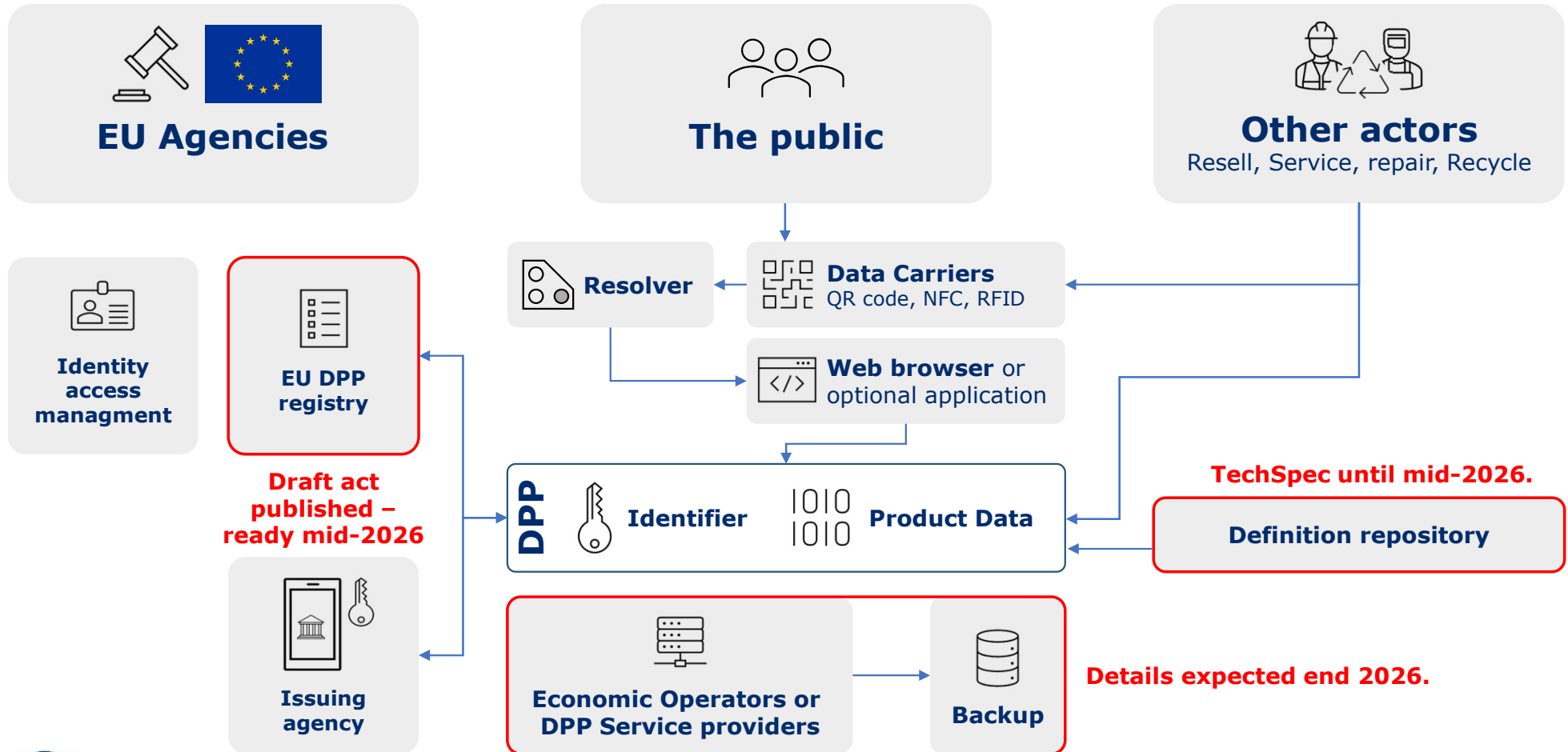


Timeline on preparatory studies

Product/Measure	Preparatory Study State of play	Meeting of the Ecodesign Forum	Estimated timeline for adoption
Intermediate products			
Iron & Steel	On-going (2023-2025)	tbd	2026
Aluminium	Start in 2026	tbd	2028



Technical Framework of the DPP



Timeline as per working plans 16.04/16.12.2025

Textiles (no footwear)	Textile label («DPP light»)	2027	Energy Related Products (ErP)	EPREL and Energy label	2026
Furniture	«DPP light»	2028	Revised Toy Safety Regulation	«DPP light»	2030*
Mattresses	«DPP light»	2029	Batteries	«DPP full» or «DPP light»	02.2027*
Tyres	«DPP light»	2027	Chemicals	«Digital label»	01.2027 (new)* 01.2029 (old)*
Steel	«DPP light»	2026	(re-use) Packaging	«Digital label»	2029*
Aluminum	«DPP light»	2028	Detergents	«DPP light»	2029*
			Revised Constr. Prod. Regulation	«DPP» and «Digital label»	2027 ff.

* = entry into application of legal obligation.
Other dates = publication of delegated act expected

revCPR Arbeitsplan (16.12.2025)

Table 3: Measures related to product families

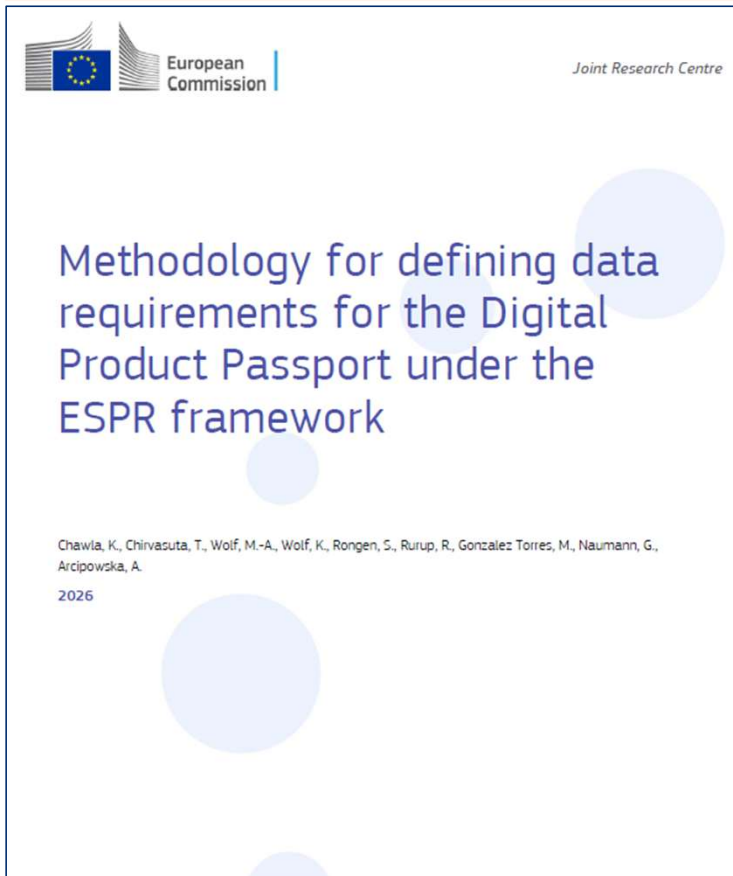
No. Product family in Annex VII.	Product family	Code	Milestone I	Milestone III	Standardisation request	Standards delivery deadline	Standard made mandatory and DA adoption	Product requirements DA	Additional information
1	precast normal/lightweight/autoclaved aerated concrete products	PCR	finished	finished	Q2 2025	Q4 2025	Q4 2025	no	citation under CPR-2011
20	structural metallic products and ancillaries	SMP	finished	finished	Q3 2025	Q4 2025	Q2 2026	no	citation under CPR-2011; for standards not delivered or not compliant there will be a new SReq. under CPR in Q2 2026 with a delivery deadline in Q3 2027
2	doors, windows, shutters, gates and related building hardware	DWS	finished	finished	Q1 2026	2028	2029	2029	product requirements for building hardware were identified and will be established by delegated act. This relates to requirements for escape routes
16	reinforcing and prestressing steel for concrete (and ancillaries) - post tensioning kits	RPS	finished	Q4 2025	Q2 2026	2029	2029	under discussion	
15	cement, building limes and other hydraulic binders	CEM	finished	finished	Q3 2025	Q3 2027	Q4 2027	no	Commission to request EADs for innovative & alkali-activated cements Q1 2026 standardisation request for alkali-activated cement Q4 2027
4	thermal insulation products - composite insulating kits/systems	TIP	finished	ongoing	Q3 2026	2029	2029	under discussion	
30	flat glass, profiled glass and glass block products	GLA	finished	ongoing	Q1 2026	2028	2029	2028	product requirements were identified and will be established by delegated act
6	chimneys, flues and specific products structural	CHI	finished	ongoing	Q3 2026	2028	2028		free-standing chimneys excluded
13	timber products/elements and ancillaries	STP	ongoing	Q1 2026	Q3 2026	2029	2029		
14	wood based panels and elements	WBP							
26	products related to concrete, mortar and grout	CMG	ongoing	Q1 2026	Q4 2026	2029			
17	masonry and related products - masonry units, mortars, and ancillaries	MAS	ongoing	Q2 2026	Q1 2027				

[Link](#)

[Link](#)

[Link](#)

EU Methodology for defining data requirements for the DPP



Defines a **preference for open, free-to-use** and **well documented ontologies**, and establishes a subsidiarity principle:

- **Reuse** wherever possible **existing vocabularies**
- Only, **where this is not possible: Adaptation** or **extension** of **existing** vocabularies
- Only, **where this is not possible: Development of new** vocabularies

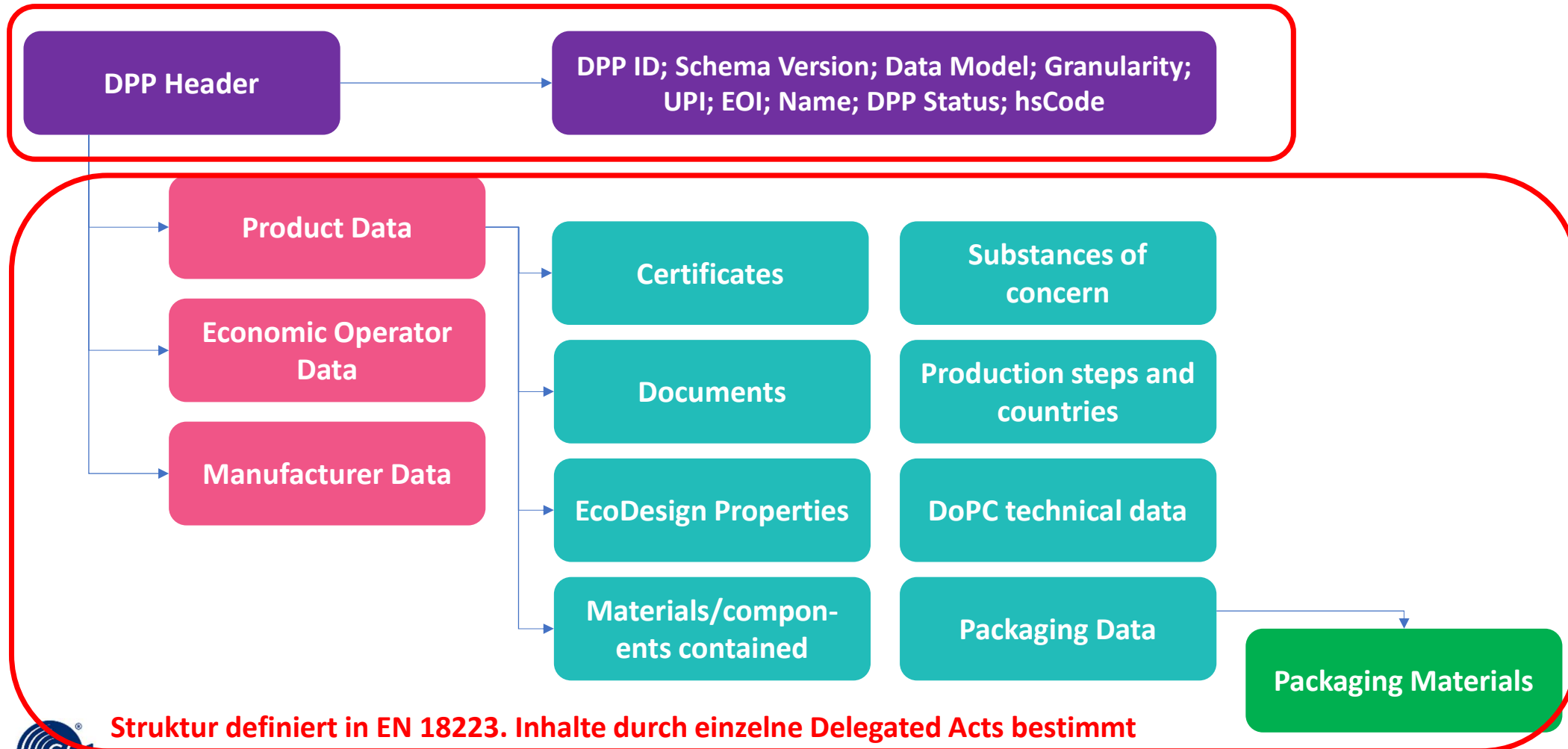
Legal basis lies in Eco-Design for Sustainable Products Regulation (ESPR), article 10 (1)(d)

ESPR 10(1)(d)

Interoperability and format requirements	
ESPR.10.1.d.	DPP data shall be based on open standards.
ESPR.10.1.d.	DPP data shall use an interoperable format.
ESPR.10.1.d.	DPP data shall be machine-readable as appropriate.
ESPR.10.1.d.	DPP data shall be structured as appropriate.
ESPR.10.1.d.	DPP data shall be searchable as appropriate.
ESPR.10.1.d.	DPP data shall be transferable through an open interoperable data exchange network without vendor lock-in.

Datenstruktur eines DPP

Vollständig definiert in EN 18223

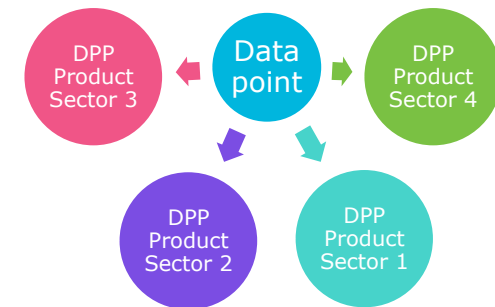
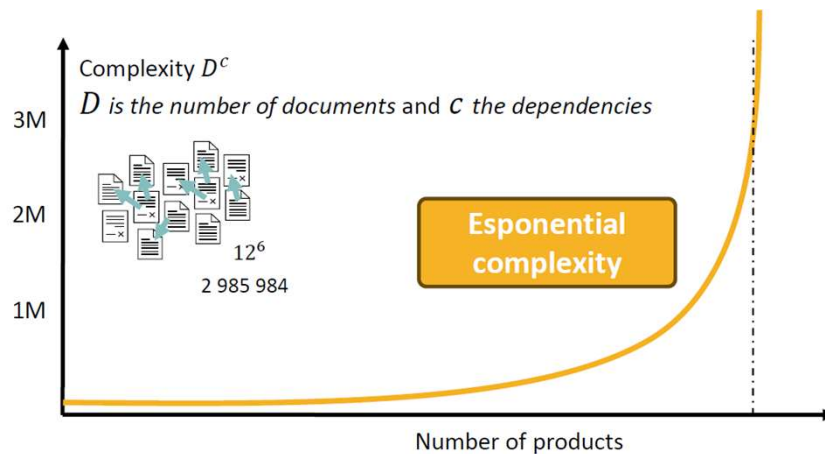


Struktur definiert in EN 18223. Inhalte durch einzelne Delegated Acts bestimmt

Simplicity and modularity are absolute key

Many manufacturers and thereby **DPP issuers will have to:**

- **Serve manifold product sectors**
- Sectors, with **tendency to create their own vocabulary**
- **Re-usage of data points / vocabularies** is paramount **to avoid exponential effects** with rising number of served product sectors.
- To control rising complexity a **hub-and-spoke linked data** model is the **model choice**



What would a «uniform vocab plug» require

A set of “**sufficiently good**” requirements to be met by vocabularies

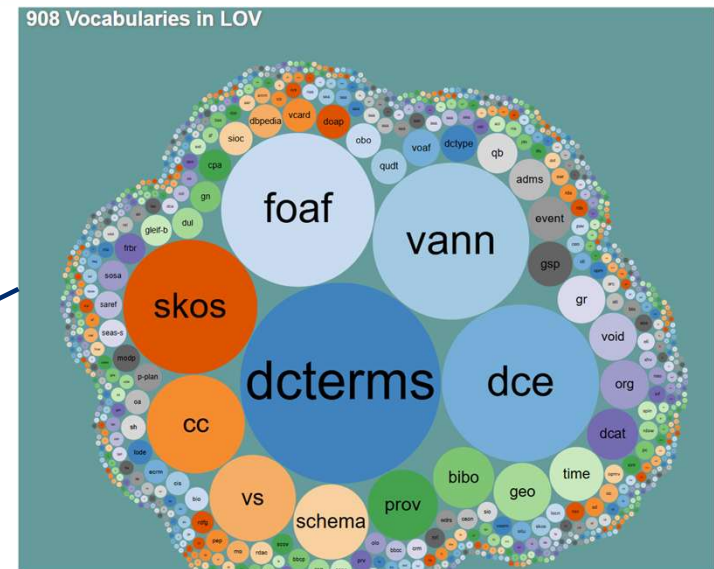
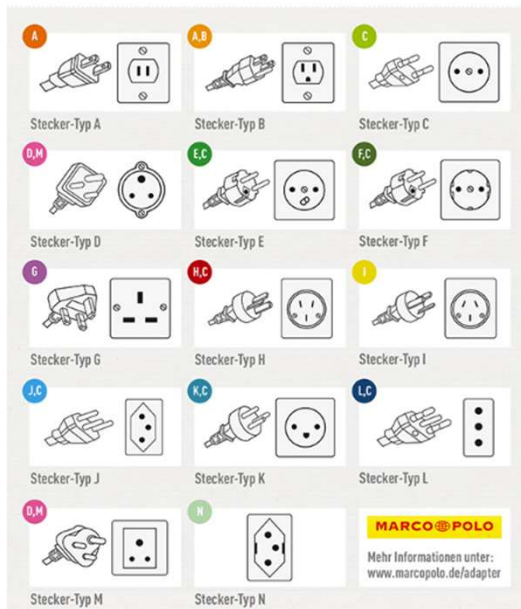
- Each **data point reachable and resolvable** by machines
- **Unique global address / identifier** e.g. (<https://www.gs1.org/gs1-web-vocabulary>)
- **Living change log, versioning and management**
- **Label/name** (multilanguage, not required to be unique, possibility for synonyms/multiple names)
- **Formal definition** (multilanguage, mandatory, well-formed definition)
- **Descriptions/examples** (multilanguage, recommended/optional)
- **Source/reference** (Reference to standards, documents etc.)
- **Data type**
- **Unit of measurement** (where applicable)
- **Physical quantity and/or dimension** (where applicable)



Incompatibility as challenge and opportunity



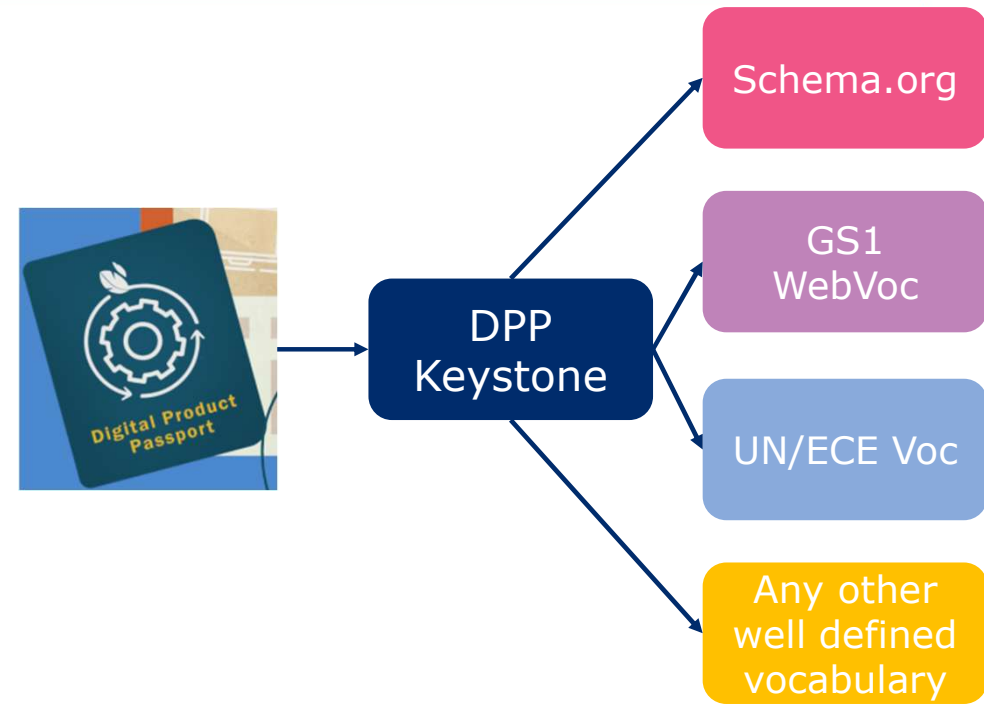
We cannot re-build the world



But we can build a web vocab plug

An application example – «DPP Keystone»

- If the above mentioned conditions are met, **numerous initiatives can thrive.**
- **A beautiful example** would be «<https://dpp-keystone.org/>»
- **A pro-bono initiative**, which **builds on existing, open web-vocabularies** (such as schema.org, GS1 WebVocabulary, UN-Definitions, etc.)
- **DPP Keystone** is building a **single place of context resolving** to **ease complexity for DPP developers** without defining new terms.



DA Iron & Steel DPP – content proposal



Table 16. Summary of the DPP content attributes

Data point		Methodology	ESPR Reference	Ontology / Vocabulary	Granularity	Access Rights
Product identification and classification						
Unique Product Identifier (UPI)	HEAT number	EN 10168 (MTC: field C00)	Annex III(b) ISO/IEC 15459-6; JTC24 WG2 Module 1	CEN/CLC JTC 24 vocabularies; Ontology needed for MTC ³⁹	Batch	Public
	Product number level	EN 10168 (MTC: field B07)			Model	Public
	CAST/Lot number (optional)	EN 10168 (MTC field: B07)			Batch	Public
	Item (in specific cases) ¹	Serial number			Item	Public
Other identifiers	GTIN	ISO/IEC 15459-6	Annex III(c)	GS1 ontology	Model	Public
	TARIC Code	TARIC XML schema	Annex III(d)	EU Customs nomenclature	Model	Public
	HS / CN Code	WCO HS; EU CN	Annex III(d)	EU Customs nomenclature	Model	Public
	Purchaser order	EN 10168 (A07)	Industry practice	Ontology needed for MTC	Batch	Legitimate interest
Product classification	Product ESPR category	ESPR DA for steel		ESPR ontology	Model	Public
	Steel grade classification	EN 10020	Industry practice	Ontology needed for MTC	Model	Public
	Steel designation	EN 10027-2	Industry practice	Ontology needed for MTC	Model	Public
	Technology route	xx	Industry practice		Operator	Public
Producer identification and origin						
	Unique Facility Identifier (UFI)	GLN	Annex III(i)		Operator	Public
	Unique Operator Identifier (UOI)	GLN/ DUNS/ LEI/EORI	Annex III(h)		Operator	Public

«DPP Keystone» at work with a steel part

- The **machine readable JSON-LD** as per EN 18223 has a simple **@context**
- The simple **@context** expands to the Keystone namespace **dppk:**
- Which in turn **creates an equivalency map** to well known ontologies.
- Easy **@context, complexity moved out of the DPP**

```
11:
  @id: "dppk:organizationName"
  @type: "owl:DatatypeProperty"
  rdfs:label: "Organization Name"
  rdfs:comment: "The official legal name of the organization."
  rdfs:domain: { "@id": "dppk:Organization" }
  rdfs:range: { "@id": "xsd:string" }
  owl:equivalentProperty:
    0: { "@id": "schema:name" }
    1: { "@id": "gs1:organizationName" }
    2: { "@id": "unece:name" }

cbamReportId
CBAM-REP-2026Q1-0A1B2C3D

Physical Properties
weight
38.133 kg

status
Active

facilityId
https://id.gs1.org/414/7649997749009

lotNumber
3432

https://dpp-keystone.org/spec/v1/terms#manufacturer:
  0:
    https://dpp-keystone.org/spec/v1/terms#additionalOrganizationId:
    https://dpp-keystone.org/spec/v1/terms#additionalOrganizationIdType:
    https://dpp-keystone.org/spec/v1/terms#address:
    https://dpp-keystone.org/spec/v1/terms#email:
    https://dpp-keystone.org/spec/v1/terms#gln:
    https://dpp-keystone.org/spec/v1/terms#organizationName:
    https://dpp-keystone.org/spec/v1/terms#telephone:
    https://dpp-keystone.org/spec/v1/terms#tradingName:
    https://dpp-keystone.org/spec/v1/terms#website:
```

```
@context:
  0: "https://dpp-keystone.org/spec/contexts/v1/dpp-iron-steel.context.jsonld"
  1: "https://dpp-keystone.org/spec/contexts/v1/dpp-general-product.context.jsonld"
digitalProductPassportId: "https://pepadoocs.com/fr/openWindow/Documents/byCode/9b7a71bbe7e65542721b05b817"
uniqueProductIdentifier: "https://id.gs1.ch/01/07649997749528/10/3432"
```

DA Textile DPP – content proposal



Table 9. Product identification and classification in existing dictionaries and ontologies

Data Point	Reference Methodology	Other Dictionaries/Ontologies	Definition Match?
Unique product ID	SGTIN (GS1) or equivalent, compliant with prEN18219	UNECE: Global Serial ID; circ.ID: sgtin; GS1: productID	High: All sources explicitly adopt the GS1 SGTIN as the unique instance-level identifier.
Batch ID	GTIN (GS1) + Lot number or equivalent, compliant with prEN18219	UNECE: Batch ID; CEON: BatchOfObjects -> batchID	Partial: The sources use this data point to group products, though they do not specifically use GTIN+Lot structure as reference methodology.
Model ID	GTIN-13 (GS1) or equivalent, compliant with prEN18219	UNECE: Model ID; circ.ID: gtin	High: All align on the trade-item level identification using GS1 standards.
Commodity Code	HS (6-digit) / TARIC (10-digit)	UNECE: Classification (code type); GS1: additionalProductClassification	Partial: The sources provide the 'Classification' container for these codes.

Table 10. Producer identification in existing dictionaries and ontologies

Data Point	Reference Methodology	Other Dictionaries/Ontologies	Definition Match?
Operator ID	Party GLN (GS1) or equivalent, compliant with prEN18219/ EORI	UNECE: Global ID / EORI; circ.ID: gln; TRICK: PARTIn	High: All cited frameworks use GLN (GS1) or EORI (Customs) for unique operator identification.
Operator Address	ISO/IEC 6523	UNECE: Address entity; circ.ID: street_address, city, postal_code	High: UNECE explicitly cite ISO/IEC 6523 for structured addressing. Circ.ID does not explicitly mandate an international standard, but is designed to be semantically interoperable with other major frameworks
Operator contact	[email or other electronic means]	UNECE: Telephone Number, Email Address TRICK: PARTIn -> contact references GS1 Web: Organization -> customerSupportCentre	Partial: No unified
Facility ID	GLN (GS1) or equivalent, compliant with prEN18219	UNECE: Facility -> Global ID, circ.ID: oar (Open Apparel Registry)	High: All use global identifiers, though circ.ID adds OAR as an industry-specific alternative to GLN.


Table 11. Product information in existing dictionaries and ontologies

Data Point	Reference Methodology	Other Dictionaries/Ontologies	Definition Match?
Fiber Composition	TLR (Clean dry mass)	CEON: TextileProductCompositionDisclosureStatement; circ.ID: material_composition	High: All follow the percentage-by-weight disclosure. Circ.ID includes trims.
Components specification	GTIN-13 (GS1) or equivalent,	CEON: includesTrims; GS1: includedAccessories	Low: The ontologies do not specify the model of the trims.

59

	compliant with prEN18219	circ.ID: material_composition;	CEON and GS1 include a Boolean to indicate whether there are trims. In Circ.ID, trims are included in material_composition.
Weight	EN ISO 80000-1 TLR (clean dry mass) and PEFCR	circ.ID: net_weight; UNECE: Net Weight; GS1: netWeight	Partial: The semantics found refer to the weight of the total product, including the textile part as well as all attached trims and additional. They do not refer to the textile part only nor explicitly cite EN ISO 80000-1.
Robustness	Methodology in the ESPR prep study	UNECE: Sustainability Score Index (type Stress and Aging Resistance), Conformity Attestation (type Test Results, Inspection Results); TRICK: TEXQualityRpt; circ.ID: circular_design_strategy -> Physical Durability, Technical Information URI; CEON: ResourceQuality, TextileDataSheet	Partial: While the methodologies do not align, there are vocabularies for technical attributes and test results.

«DPP Keystone» at work with steel and textiles



HEA-100 - 2230
HEA-100 steel profile - Best Steel

gtin: 07649997749528 | schemaVersion: 1.0 | status: Active

Identifiers

digitalProductPassportId: <https://pepadocs.com/fr/openWindow/Documents/byCode/9b7a71bbe7e65542721b05b817569c1c/asMainPage/>

uniqueProductIdentifier: <https://id.gs1.ch/01/07649997749528/10/3432>

facilityId: <https://id.gs1.org/414/7649997749009>

economicOperatorId: <https://id.gs1.org/417/7612345000008>

hsCode: 7216.4000

lotNumber: 3432

cbamReportId: CBAM-REP-2026Q1-0A1B2C3D

Physical Properties

weight: 38.133 kg | dimensions: 2230 x 100 x 96 mm | steelGrade: S355J2

Product Overview Last updated: 2026-05-08 10:00 UTC

DIGITAL PRODUCT PASSPORT ID: 770083e8-8d75-4862-986c-4892a299f66

UNIQUE PRODUCT IDENTIFIER (UPI): GS1 G1IN: 07612345000008

GRANULARITY: Model Level | COLOUR: White | COUNTRY OF ORIGIN: Italy IT

DIMENSIONS: 34 x 29.4 x 3.26 cm

Material Composition Declared textile fibre breakdown

POLYESTER: 67%
Durable synthetic fibre offering wrinkle resistance, dimensional stability and long product life.

WOOL: 33%
Natural fibre providing insulation, breathability and comfort in varying temperatures.

Animal origin non-textile components: 0% | Organic material content: 33% | Recycled content: 0%

Sustainability & Circularity Environmental performance indicators

Recyclability Score: 8 / 10
Product designed for recyclability according to ESPR-aligned methodology and textile recovery practices.

CARBON FOOTPRINT: 1 kg CO₂ eq.
Estimated lifecycle greenhouse gas emissions as declared under ESPR methodology.

ROBUSTNESS SCORE: 6 / 10
Indicates expected durability and resilience under standard consumer use conditions.

Quality & Performance Tests ISO aligned assessment indicators

TEST	METHOD / STANDARD	DESCRIPTION
Visual Inspection	ISO 15487	Assessment of textile appearance, construction consistency, and visible manufacturing defects.
Spirality	ISO 16322-3	Measures torsional distortion after washing or finishing, relevant for knitted textile performance.
Dimensional Change	ISO 3759	Determines shrinkage or expansion after washing and drying.

 DPP Mock-Up Steel Visualization.html

 F5B10DD9.html

Draft of EU DPP Registry Act

Article 1 – scope of the registry ([link](#))

The implementation arrangements and rules referred to in paragraph 1 of this Article relate to:

- (a) management of access to the registry;
- (b) the verification process that allows economic operators and other value chain actors to be verified;
- (c) the technical set-up of the registry, including semantics repository, log system related to data exchange models and software release management;
- (d) the process of registering and storing unique identifiers;
- (e) the process of registering and storing commodity codes for products intended to be placed under the customs procedure ‘release for free circulation’;
- (f) requirements to register, where relevant, product parameters: models, batches, items;
- (g) statuses related to registered digital product passport data;
- (h) data that will allow the traceability of products within their relevant product group, across the granularity levels, as referred to in Article 8(2), applicable for their digital product passport;
- (i) update and deletion of registration data;
- (j) processing of personal data;
- (k) measures aimed at preventing, detecting and addressing any improper or fraudulent use of the registry;
- (l) technical audits;
- (m) ensuring the availability of the registry and of the data it contains.

What is required for authentication:

- **eIDAS 1.0 based certificate or ([link](#))**
- **EAA based instrument (future EU Business Wallet)**

What is registered:

- **Unique Identifiers**
- **HS Codes**
- **Product level** (model, batch, item)
- **Link towards DPP incl. back-up**

What is verified:

- **Semantics against a EU data model**

What is received:

- **DPP registry ID**

Draft of EU DPP Registry Act

Critical points

- **Who is allowed to register:** Actors as per the ESPR, primarily the Economic Operator
- **Single point of failure:** What if the DPP Registry is down? Where do I obtain the DPP Registry ID for customs clearance?
- Most critical is the **verification mechanism** upon upload: What if it does not work?
- **Important:** The DPP will not be «any schema», it will be a clearly defined schema and probably based on the JRC methodology. **Semantic discipline will be crucial.**

Authentication – critical aspect entities

- For **non-EU companies eIDAS 1.0 remains a (cost) obstacle** with requirement of legal incorporation in the EU.
- **Central issue (on EU Business Wallet proposal):**
 - Art. 1: Builds in principle on EUID (EU Regulation 2021/1042), which is NOT compatible with the globally functioning Economic Operator identifier (EOI) from the DPP.
 - EUID only works with a Business Registry providing such an ID. DPP EOI works globally.





Notes:

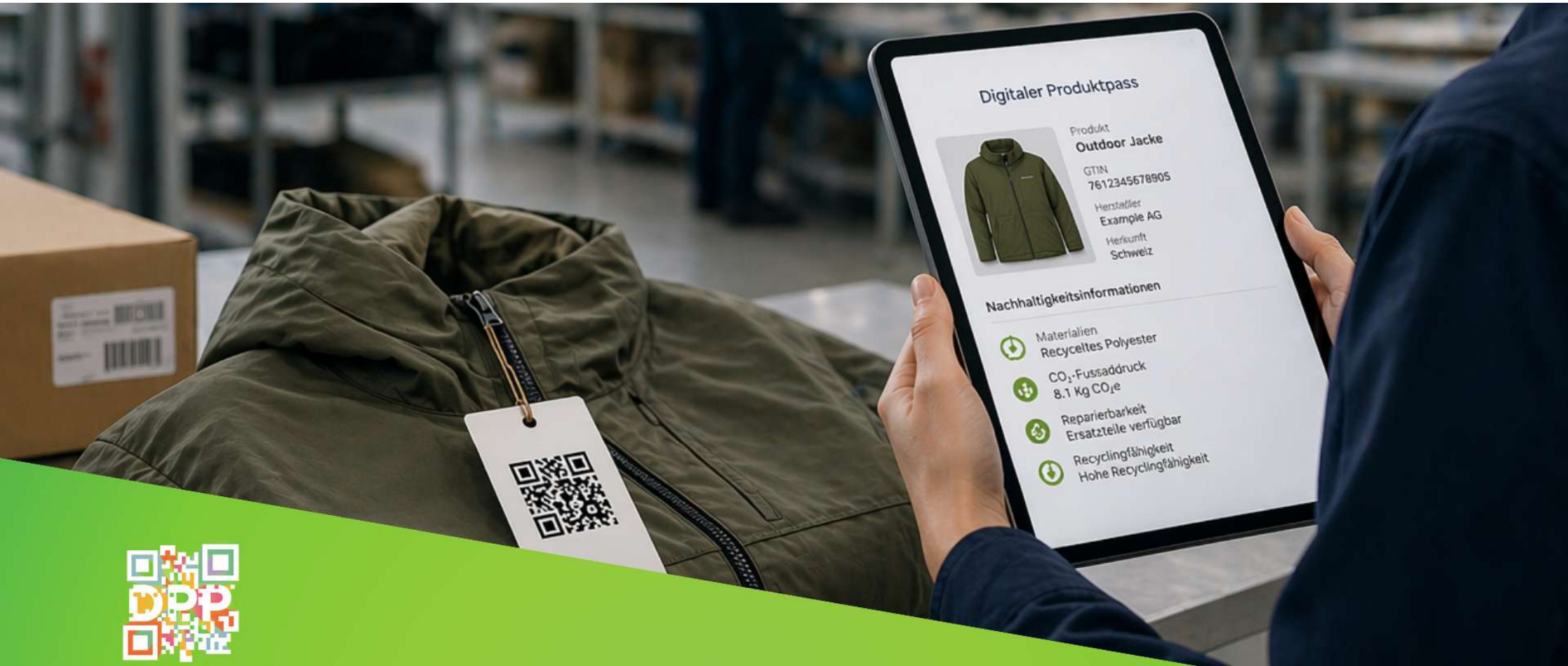
- **Proposal for a EU Business Wallet regulation:** <https://digital-strategy.ec.europa.eu/en/library/proposal-regulation-establishment-european-business-wallets>
- **Information on Digital Omnibus and EU Digital Wallet:** <https://digital-strategy.ec.europa.eu/en/faqs/digital-package>

Role of the DPP Registry Identifier

- The DPP Registry Identifier **is a cryptographic key confirming registration of a DPP in the EU DPP Registry** (proof for the fulfilment of a legal obligation)
- It will need **to be presented to customs** at the EU customs border
- The following slide shows a mock-up, of how the EU DPP Registry Identifier will most probably function for non-EU companies
- The **critical path** is: **No EU DPP Registry Identifier** at customs, **no customs clearance, no release** of an imported product **for circulation on the common market**

Role of the DPP Registry Identifier - example

 <p>FERALPI SIDERURGICA S.p.A. Società per azioni con socio unico Direzione e coordinamento Feralpi Holding S.p.A.</p>		<p>Sede Legale: Via Aurelio Saffi, 15 25122 Brescia - Italy</p> <p>Stabilimento e Sede Amministrativa: Via Carlo Nicola Pasini, 11 25017 Lonato del Garda (BS) - Italy</p>	<p>Cap. Soc. € 50.000.000,00 I.v. Reg. Imp. BS - C.F. 02530630983 PIVA CEE IT 02530630983 R.E.A. BS/457238 Tel. +39 030 9996.1 siderurgica@pec.feralpigroup.com</p>	 <p>FERALPI GROUP www.feralpigroup.com</p>		
DOCUMENTO DI TRASPORTO (D.P.R. 14.08.1996 N. 472)			Pag.1 / 1			
NR DDT: 0101378999						
NUM. CONSEGNA: 300451865		CLIENTE: GLN: 7612345100012				
Data:	25.01.2024	SIPRO SIDERPRODUKTE AG				
Causale:	Consegna di vendita	GRINDLENSTRASSE 5, POSTFACH				
Incoterms:	FCA LONATO	CH-8954 GEROLDSWIL				
VETTORE:		CLIENTE FINALE: GLN: 7612345100029				
P.I. Albo:		SACAC AG				
		FABRIKSTRASSE 11				
		CH-5600 LENZBURG				
SUB VETTORE:		LUOGO DI CONSEGNA: 200130				
P.I. Albo:		SACAC AG				
		FABRIKSTRASSE 11				
		CH-5600 LENZBURG				
Targa Motrice: 878035091171		Agente: DIR-FERALPI				
Targa Rimorchio:		Aspetto esteriore beni: A vista				
Peso totale: 56.940,000 KG		Numero trasporto: 20268440				
Tipo consegna: Spedizioni Vagoni						
POS.	MATERIALE (GTIN)	DESCRIZIONE	DIAM.	LUNGH.	UM	QUANTITA'
Ns. ordine: 210046316 del 13.10.2023 - Vs. ordine: 231015608 del 13.10.2023						
10	20000704	TONDO B700B(CH) D.40,0 L.24000	40,0	24000	TO	56,940
Colata: (01)07649997749504 (10)012393021			Quantità collis		DPP QR Code	
DPP-URI: https://fd.gs1.ch/01/07649997749511/10/012393021			23			
DPP registration identifier: hier kommt der Hash rein aus dem EU-Registry						
Colata: (01)07649997749504 (10)012393022			1			
DPP-URI: https://fd.gs1.ch/01/07649997749511/10/012393022						
DPP registration identifier: hier kommt ein Hash rein aus dem EU-Registry						



Digitaler Produktpass



Produkt
Outdoor Jacke
GTIN
7612345678905
Hersteller
Example AG
Herkunft
Schweiz

Nachhaltigkeitsinformationen

- Materialien
Recyceltes Polyester
- CO₂-Fußabdruck
8.1 Kg CO₂e
- Reparierbarkeit
Ersatzteile verfügbar
- Recyclingfähigkeit
Hohe Recyclingfähigkeit

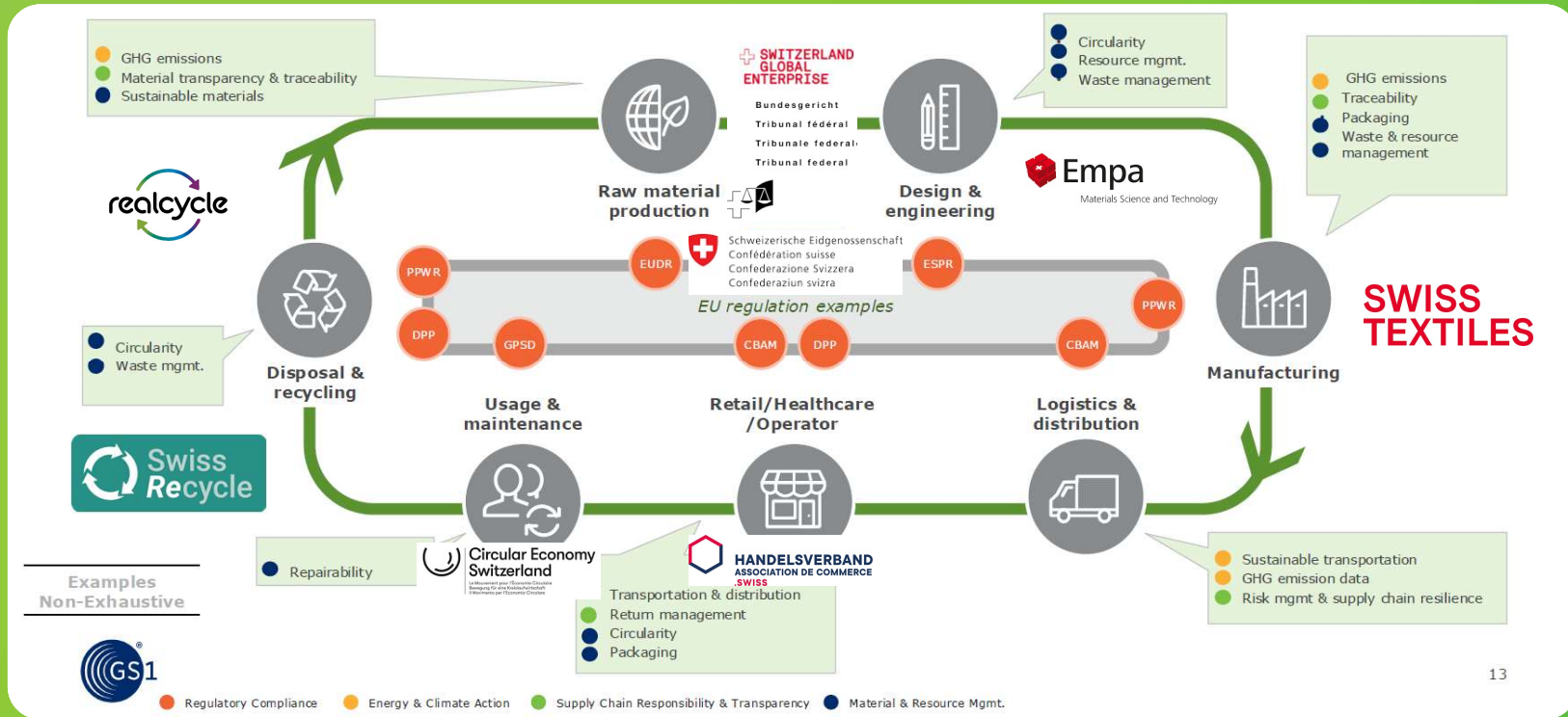


GS1 DPP Conference

8. Oktober 2026 | Zürich

DPP Conference 2026

The future of Data collection along the value chain



Thank you very much for your attention



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