DIGITAL PRODUCT PASSPORT

A PRACTICAL GUIDE FOR BUSINESSES

STRIPED GIRAFFE

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WHAT IS DPP?

A **Digital Product Passport (DPP)** is a digital container for product, component, and material information. It provides structured access to relevant data throughout a product's lifecycle, supporting transparency, circularity, informed decision-making, and regulatory compliance.

THE PRIMARY OBJECTIVES OF DPP INCLUDE:

- **Enhancing Traceability** – Ensuring that products can be tracked throughout their lifecycle, from production to disposal, supporting circular economy initiatives.
- **Enabling Data-Driven Decision-Making** – Providing businesses, consumers, and authorities with reliable product information to support informed decisions and compliance.
- **Fostering Innovation** – Encouraging the development of new business models, such as repair, refurbishment, and product-as-a-service schemes.
- **Supporting Regulatory Oversight** – Helping authorities verify product compliance and improve market surveillance.

HOW IT WORKS IN PRACTICE

Each DPP is linked to a persistent unique **product identifier** and a digital **data carrier**. Depending on the applicable product-specific requirements, the passport may be established at model, batch, or individual item level.

The **data carrier** – for example a QR code, barcode, or NFC-based solution – links the physical product, its packaging, or accompanying documentation to the relevant digital product information. Its format and placement are defined by the applicable legislation.

When users access the DPP, the information made available depends on their respective access rights.

Scanning the data carrier with a mobile device will provide instant access to a webpage displaying the DPP data.

In **brick-and-mortar stores**, the data carriers – such as QR codes – can be displayed on **price tags** or **product labels**.

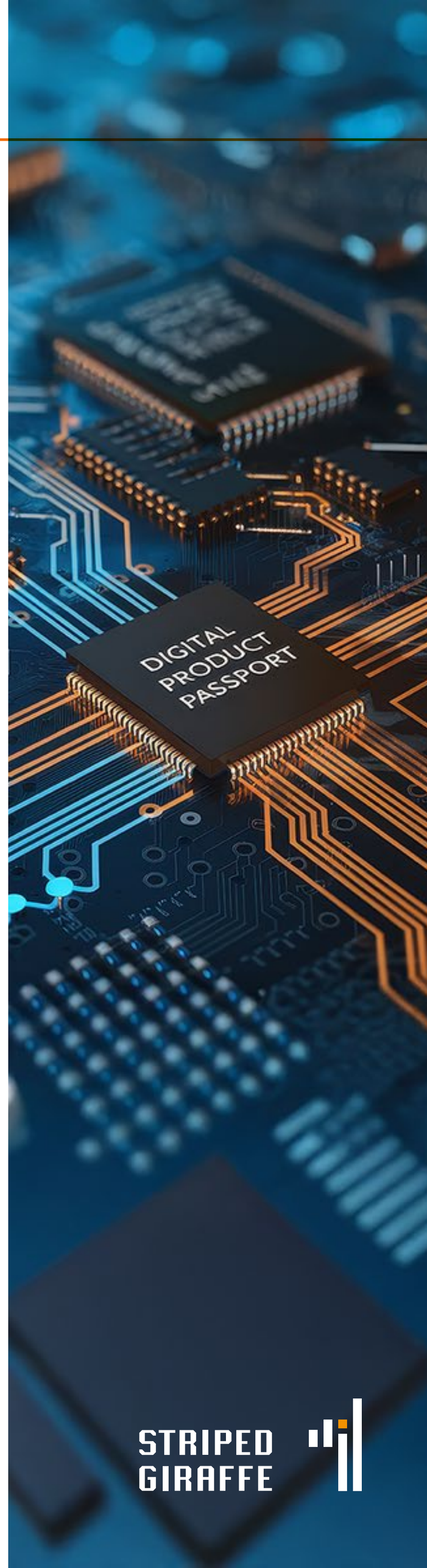
In **distance-selling** scenarios, including **online sales**, the relevant data carrier or product identifier must be made accessible to potential customers, as they cannot physically access the product prior to purchase.

DATA REQUIREMENTS

All data included in the DPP must comply with the following principles:

- Data should be based on **open standards**, developed with an **interoperable format**.
- Data should be, as appropriate, **machine-readable**, **structured**, and **searchable**.
- Data should be **transferable** through an open interoperable **data exchange network** without vendor lock-in.
- **Data authentication**, **data reliability**, and **data integrity** shall be ensured.
- Access to DPP data may differ by stakeholder group. **Public** and **restricted** information, including different levels of access, will be defined by the applicable product-specific legislation.
- **Tiered access** to different levels of restricted data based on **user roles** should be enabled.

Progress Snapshot: Technical standards are becoming concrete – six harmonised DPP standards covering areas including unique identifiers, interoperability, data carriers, APIs, data exchange protocols, and data storage were published in July 2026. Two further are scheduled to follow.



STAKEHOLDERS

Different **stakeholders** across the **value chain** interact with DPP data in different ways. Depending on the applicable legislation and access rights, they may provide or update information, access product data, or use the DPP for compliance and market-surveillance purposes.

- Economic operators placing the product on the market:
  - Manufacturers and their authorised representatives
  - Importers
  - Distributors
  - Dealers
- Customers / Consumers
- Professional repairers
- Remanufacturers, recyclers, and refurbishers
- Market surveillance authorities, customs
- Trade unions, civil society organisations
- Researchers
- The European Commission

DPP CREATION & MAINTENANCE

- The **economic operator** responsible for placing the product on the EU market creates and maintains the DPP in accordance with the applicable product-specific requirements.
- The complete product information is stored by the responsible economic operator or a DPP service provider.
- When placing a product on the market, the economic operator must also make a **back-up copy** of the DPP available through a DPP service provider.
- Each DPP must be registered in the **EU Digital Product Passport Registry** before the relevant product is placed on the market.
- The Registry stores unique identifiers and mandatory registration metadata rather than the complete DPP dataset.
- Following registration, the Registry generates a unique **registration identifier**.
- Depending on the applicable legislation, a DPP may be created at **model**, **batch**, or **item** level.
- DPP information must remain **accurate**, **complete**, and **up to date** throughout the required period.

PRODUCT GROUPS

DPP requirements are being introduced progressively and will differ by product group.

First mandatory DPP: Certain batteries – including EV batteries, light means of transport batteries, and industrial batteries above the applicable threshold – will require a battery passport from 18 February 2027.

Priority product groups under the ESPR include:

- Iron and steel
- Textiles, particularly garments and footwear
- Aluminium
- Tyres
- Furniture and mattresses
- Selected energy-related products
- ICT products and other electronics

Other sectors, including construction products, are covered through separate EU legislation establishing compatible DPP systems.

Note: Inclusion in an ESPR working plan does not automatically mean that a DPP is already mandatory. Specific requirements become binding through the relevant delegated or sector-specific legal acts.

TYPES OF DATA IN DPP

The exact data requirements will vary by product category and will be defined by the applicable product-specific delegated acts under the ESPR or by relevant sector-specific EU legislation.

Depending on the product group, DPP data may include:

- **Product Identification:** name, model, serial number
- **Material Composition:** breakdown of materials used, recyclability, origin
- **Manufacturing Information:** production location, environmental footprint
- **Sustainability Metrics:** energy efficiency, carbon footprint, circularity indicators
- **Usage & Maintenance:** instructions for longevity and proper care
- **End-of-Life Data:** recycling, disposal guidelines, take-back schemes

BENEFITS

FOR CONSUMERS:

- Access to detailed product information, enabling sustainable and informed purchasing decisions.
- Greater transparency on product origins, materials, and carbon footprint.
- Greater ability to assess product information and verify relevant sustainability and compliance information.
- Improved access to information on product origin, characteristics, repairability, and recyclability.

FOR BUSINESSES:

- Improved supply chain transparency and efficiency.
- Easier compliance with regulatory requirements and sustainability goals.
- Strengthened customer trust through validated environmental claims.
- Opportunities for new business models.
- Greater transparency can strengthen trust in documented product information.

DPP IMPLEMENTATION TIMELINE

July 2026 – DPP Registry framework adopted and six harmonised DPP standards published.

20 July 2026 – EU Digital Product Passport Registry becomes operational.

September 2026 – Remaining two DPP standards expected.

Q4 2026 – Sector-specific DPP requirements for iron and steel expected.

18 February 2027 – Battery passports become mandatory for relevant EV, LMT and industrial batteries.

Q2 2027 – Further requirements expected for construction products and DPP service providers.

Q3–Q4 2027 – Sector-specific DPP requirements expected for textiles, aluminium and tyres.

2028 – Furniture requirements expected.

2029 – Mattresses and further product requirements expected.

Timelines remain indicative and depend on the adoption and publication of the relevant legal acts.

LEGAL FRAMEWORK

The DPP is implemented through a combination of horizontal and sector-specific EU legislation.

- **Ecodesign for Sustainable Products Regulation (ESPR)**, Regulation (EU) 2024/1781 – Establishes the overarching framework for Digital Product Passports and product-specific ecodesign requirements.
- **EU Batteries Regulation**, Regulation (EU) 2023/1542 – Introduces the battery passport, mandatory from 18 February 2027 for specified battery categories.
- **Construction Products Regulation**, Regulation (EU) 2024/3110 – Establishes a dedicated Digital Product Passport system for construction products that must be compatible and interoperable with the ESPR DPP framework.

Additional sector-specific legislation

- Other EU acts may introduce or connect product-specific digital information requirements to the DPP framework, including legislation covering packaging, critical raw materials, toys and detergents.

READY TO PREPARE FOR THE DIGITAL PRODUCT PASSPORT?

We help you assess your DPP readiness,
establish the required data foundation,
and integrate DPP processes
into your existing system landscape.

CHECK HOW WE CAN SUPPORT YOU

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UNLOCK YOUR PATH TO A WEALTH OF INSIGHTS

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OR GET IN TOUCH WITH OUR EXPERTS:

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