

# DIGITAL PRODUCT PASSPORT

ALL YOU NEED TO KNOW



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## ALL YOU NEED TO KNOW

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## WHAT IS DPP?

A **Digital Product Passport (DPP)** is a structured digital record containing essential information about a product's composition, origin, and lifecycle. Its purpose is to enhance transparency, facilitate sustainability tracking, and provide stakeholders with reliable data on a product's environmental impact.

### 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 and regulators with standardized, reliable data to monitor environmental impact and compliance.
- **Fostering Innovation** – Encouraging the development of new business models, such as repair, refurbishment, and product-as-a-service schemes.
- **Strengthening Regulatory Oversight** – Helping authorities verify sustainability claims, enforce eco-design requirements, and prevent fraudulent practices.



# DIGITAL PRODUCT PASSPORT

## HOW IT WORKS IN PRACTICE

Every product will have its **unique product identifier (UPI)**, a unique string of characters that also enables a **web link** to the respective digital product passport.

The DPP will be connected to its UPI through a **data carrier**, which could be, for example, a **QR code**, **barcode** or **NFC tag**.

The data carrier will be attached to the product, packaging, or product documentation.

**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 e-commerce, the simplest way to provide access to the digital product passport is to place a **link** to the DPP on the **product page**, but more aspiring retailers will use this to their advantage.

**Curious about how e-commerce can harness DPP data?**  
Find out more in our [\*\*blog article here!\*\*](#)





## 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.
- Data can be categorized as either **public** or **restricted**, with public data accessible to all stakeholders and restricted data requiring specific **permissions** and **access rights**.
- **Tiered access** to different levels of restricted data based on **user roles** should be enabled.

**Managing and sharing DPP data comes with challenges. Learn how to tackle them in our [blog post here!](#)**



## STAKEHOLDERS

ESPR identifies a number of **DPP stakeholders** along the **value chain**, each with different interests in accessing DPP data, whether to input and update data, obtain information on sustainability parameters or monitor and verify regulatory compliance.

- 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 **original passport** is to be created and managed by the **economic operator**, which in most cases will be the **manufacturer**.
- The manufacturer may choose to store its DPPs either in-house or with a **DPP service provider** of their choice.
- Additionally, a **copy of the passport** must be maintained by a designated DPP service provider.
- The **EU central registry** will store all unique identifiers for products, operators, and facilities.
- A **public EU web portal** will provide access to all DPPs, enabling stakeholders to search for and compare data in accordance with their respective access rights.
- Economic operators will be obliged to provide digital copies of the data carrier or the unique product identifier to **e-commerce sellers**.
- DPPs can be created at **model**, **batch**, or **item** level.
- In the event of any parameter changes at the respective level, the data within the passport must be **promptly updated** to ensure **accuracy** and **compliance**.





## PRODUCTS COVERED

The first product categories subject to DPP requirements include:

- Metals: iron, steel, aluminum
- Consumer goods: textiles (in particular garments, footwear), furniture, tires
- Detergents, paints, lubricants, chemicals
- Information and communication technology (ICT) products and other electronics
- Energy-related devices
- Batteries: batteries in light means of transport (LMT), industrial batteries, EV batteries

More product categories are expected to be added in the coming years, as the European Commission will regularly update the list.

- Likely candidates for future additions may include toys, vehicles, and construction materials





# DIGITAL PRODUCT PASSPORT

## TYPES OF DATA IN DPP

The exact data requirements will vary by product category and will be determined by future implementing acts.

Expected data types 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.
- Protection from counterfeit products and greenwashing claims.
- Assurance of product quality, authenticity, 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.
- Enhanced brand reputation by demonstrating sustainability commitments.





# DPP IMPLEMENTATION TIMELINE

The DPP implementation timeline across various product categories is **still under development**. While definitive deadlines are pending, several sources provide preliminary estimates for DPP implementation:

**Mid-2025** — The first **ESPR working plan**.

**January 2026** — The delegated act for textiles is to be published, with compliance required by **July 2027**.

**April 2026** — The act for iron and steel products is to be released, with compliance needed by **October 2027**.

**July 2026** — The EU will set up a **central digital registry** for all unique identifiers connected to products.

**2023-2027** — Delegated acts specifying DPP requirements for specific product categories are expected to be issued.

**From 2027** — DPPs under the Construction Products Regulation (CPR) are expected to come into effect for construction materials.

**February 18, 2027** — The battery passport is set for compulsory adoption.

These timelines are subject to change as the EU authorities finalize the regulations.





## LEGAL FOUNDATIONS

The implementation of digital passports is guided by key EU legislative acts:

- **Ecodesign for Sustainable Products Regulation (ESPR)**: Establishes the framework for DPP implementation and sustainability requirements.
- **EU Battery Regulation**: Mandates digital passports for batteries to track material sources and recyclability.
- **EU Strategy for Sustainable and Circular Textiles**: Sets sustainability criteria for textile products, requiring transparency via DPPs.
- **Corporate Sustainability Reporting Directive (CSRD)**: Introduces disclosure obligations on sustainability practices.
- **Corporate Sustainability Due Diligence Directive (CSDDD)**: Imposes due diligence obligations on supply chains.
- **EU Green Claims Directive**: Ensures environmental claims are verifiable and evidence-based. The Green Claims Directive is expected to enter into force in 2028 at the latest.





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