

A Report from the Network of SME Envoys



DIGITAL PRODUCT PASSPORT

2025

Disclaimer

This report has been put together by the Network of SME Envoys, under the guidance of the Swedish and Portuguese SME Envoys as rapporteurs and with the assistance of the European Commission. The report is the result of a co-creative process of the members of the Network. It is not an official document of the European Commission.

Executive Summary

Digital Product Passports (DPP) are unique product identifiers that provide comprehensive, traceable information about a product's life cycle, including its origin, manufacturing process, materials used, and options for disposal or recycling at the end of its useful life. By providing specific, reliable data, DPP enable transparency throughout the product value chain, empowering businesses and consumers to make informed, conscious choices, promoting sustainable production, and assisting public authorities in verifying compliance with environmental regulations.

The DPP is poised to be a game-changer in fostering sustainable practices, offering clear benefits such as improved resource efficiency, enhanced waste management, and support for extended producer responsibility schemes. However, its successful implementation depends on overcoming significant challenges, including ensuring data reliability, achieving standardisation across diverse industries, addressing technical training needs, and managing implementation costs. These challenges are particularly pressing for small and medium-sized enterprises (SMEs), which may face resource constraints.

Collaboration among stakeholders, including policymakers, industry representatives, and technology providers, is critical to addressing and overcoming these barriers. By fostering innovation and harmonised standards, the DPP initiative has the potential to revolutionise how products are monitored and managed, driving the transition to a circular economy and paving the way for a more sustainable and responsible future.

This report assesses the current knowledge, progress, and concerns of Member States and business organisations regarding the adoption of DPPs. Emphasis is placed on understanding the readiness and challenges faced by SMEs, offering tailored recommendations to support their active participation in this transformative initiative.

Acronyms

APIs | Application Program Interfaces

BIM | Building Information Modelling

CAPEX | Capital Expenditures

CEAP | Circular Economy Action Plan

CEN | European Committee for Standardization

COM | European Commission

CENELAC | European Committee for Electrotechnical Standardization

CSRD | Corporate Sustainability Reporting Directive

DAS | Delegate Acts

DPP | Digital Product Passport

ESBA | European Small Business Alliance

ESPR | Eco Design for Sustainable Products Regulation

EFRAG | European Financial Reporting Advisory Group

EP | European Parliament

ESG | Environmental, Social, and Governance

EU | European Union

IMDS | International Material Data System

MS | Member States

OPEX | Operating Expense

REACH | Registration, Evaluation, Authorisation and Restriction of Chemicals

RFID | Radio-Frequency Identification

SDGS | Sustainable Development Goals

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1. Introduction

Sustainable product initiatives will be driving forces in reshaping the market landscape by 2030. These efforts aim to embed sustainability into the very fabric of product design, ensuring that a substantial share of goods available to EU consumers are built with longevity, efficiency, and circularity in mind. This means creating products that are more durable, energy and resource-efficient, and designed for easier repair and recycling. The initiatives prioritize the use of recycled materials, waste reduction, and minimizing environmental impact across every stage of the product lifecycle.

This shift will foster a more responsible business environment, encouraging companies to adopt sustainable practices that do not compromise ecological integrity.

Furthermore, consumers will gain access to clear and trustworthy information, empowering them to make well-informed and sustainable decisions. They will be better safeguarded against practices that could hinder the environmental transition, while being equipped with tools to preserve and extend the lifespan of their products.

This approach not only strengthens consumer rights but also aligns with the overarching goals of reducing waste and fostering a circular economy.

Moreover, businesses will gain access to crucial data that supports the environmental sustainability and circularity of their products and business models. By leveraging this data, companies can innovate and enhance their offerings, embedding sustainability into every stage of their operations from product design to end-of-life management. These efforts collectively contribute to a more sustainable and resilient economy, with long-term benefits for society and the environment.

In this context, the Digital Product Passport (DPP) - a comprehensive electronic record detailing each stage of a product's lifecycle emerges as an innovative and practical solution to these pressing needs.

The DPP directly addresses the growing demand for transparency, traceability, and sustainability across global supply chains. This concept is particularly valuable for SMEs, which often face distinct challenges related to limited resources, regulatory compliance, and maintaining competitiveness.

2. Report Scope

Within the SME Envoys Network, Portugal and Sweden have assumed, since October 2023, the role of rapporteurs for the theme of "Sustainability," one of the Network's priority areas. Considering the extensive scope of sustainability, this report focuses specifically on DPP as a key pivotal element in promoting sustainable and circular business models.

The report aims to identify best practices, highlight challenges, and propose actionable recommendations to support SMEs in effectively adopting DPP.

It intends to serve as a practical resource for policymakers, businesses, and other stakeholders engaged in fostering sustainability and innovation.

2.1. Report Structure

1. Introduction | The introduction provides a context for the report, emphasizing the importance of embedding sustainability into business practices across the EU. It highlights the role of DPP in promoting transparency, traceability, and circularity, particularly for SMEs.

2. Scope and Methodology | This section outlines the report's focus on the DPP as a key element in advancing sustainable business models. It describes the methodologies used, including surveys and focus groups, to gather insights and recommendations from SMEs and business organizations across Member States.

3. Conclusions and Recommendations | This chapter presents the main findings and recommendations derived from the responses to the two tailored surveys and the focus groups. Detailed results from these sources are elaborated in their respective chapters (5 and 6).

The decision to present conclusions and recommendations early in the report was intentional, aiming to highlight their importance and ensure they guide the reader through the subsequent sections.

4. Regulatory Framework | This chapter analyses the EU's sustainability policies and regulations, including the Ecodesign for Sustainable Products Regulation (ESPR) and

its integration with broader initiatives such as the European Green Deal. It highlights the legislative context shaping the adoption of DPP.

5. Surveys | Dedicated to the results of the two tailored surveys - one targeting institutional respondents and the other focusing on business organizations - this chapter aims to reflect diverse perspectives and include as many practical examples as possible. It is not, however, a verbatim transcription of the responses. Instead, the chapter synthesizes key insights, highlighting trends, challenges, and opportunities related to DPP adoption across sectors.

6. Sectorial Focus Groups | This chapter presents sector-specific insights gathered from focus groups. It highlights challenges, opportunities, and tailored recommendations for industries such as textiles, electronics, construction, and others. The information here complements the conclusions and recommendations by providing a deeper understanding of industry-specific dynamics.

7. References | The report concludes with a comprehensive list of sources and references, ensuring the credibility and transparency of the information provided.

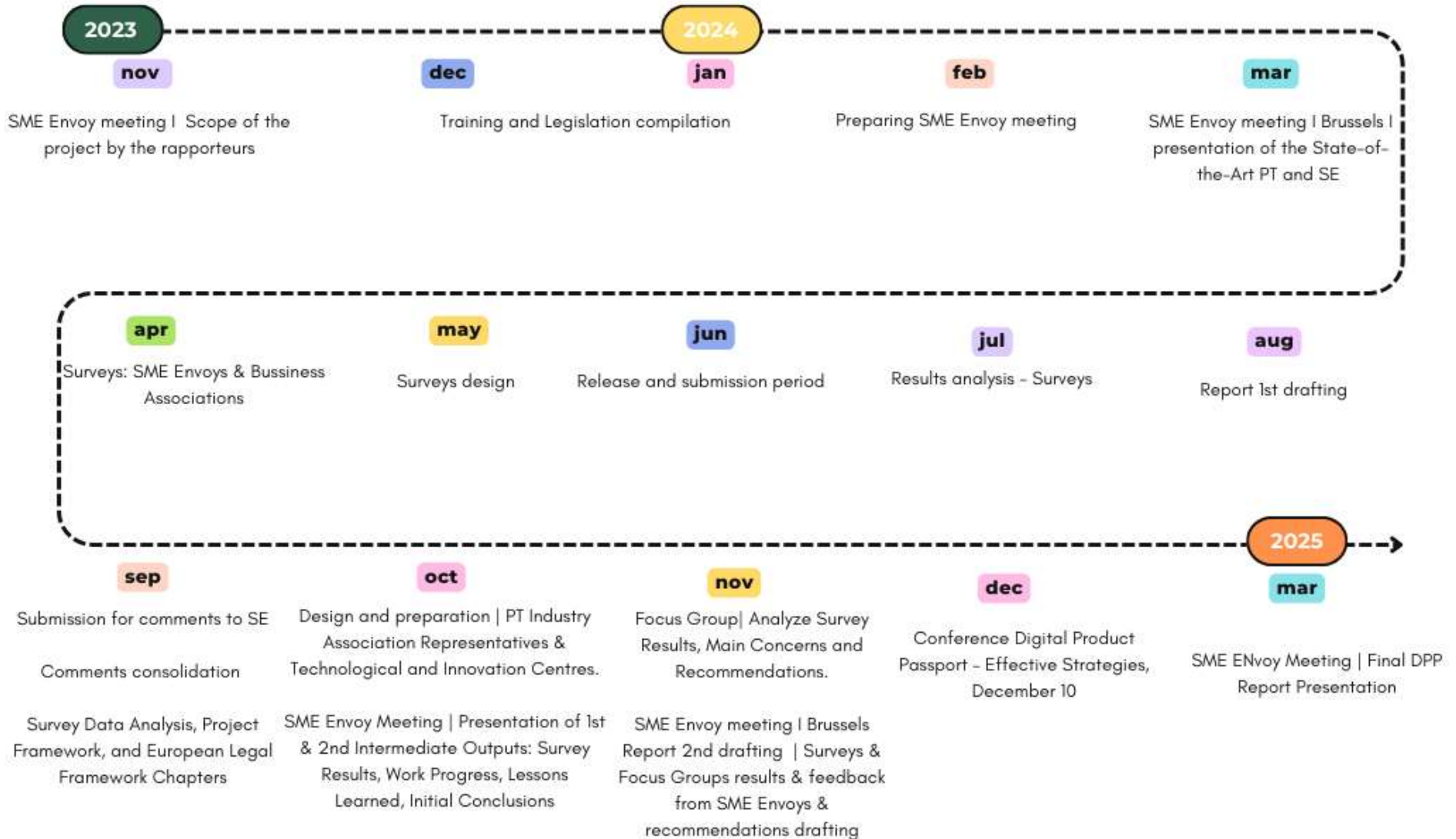
2.2. Project Activities & Timeline

The DPP project involved several key activities and a detailed timeline to ensure its successful implementation. The reporting team has held regular meetings to decide on the organization of work, methodology, the content of the questionnaire, and the overall approach to carrying out the assessment, including interim deadlines for specific tasks.

From the information collected in the two technical approaches used (Surveys and Focus Groups), it was possible to identify opportunities, challenges, and recommendations which will be further explored in this report.

SME Envoy Network | Digital Product Passport

Activities



3. Conclusions & Recommendations



3.1. Conclusions

AWARENESS AND KNOWLEDGE OF DIGITAL PRODUCT PASSPORTS

Analysis reveals that while Member States are raising SME awareness about DPP legislation through webinars, technical committees, and reports, practical impact remains limited. Awareness efforts focus on traceability, compliance, and sustainability but rarely lead to concrete implementation. Many SMEs are still unprepared for compliance due to a lack of practical training, guides, and support tools. At the same time companies still face uncertainty regarding the typology and definition of the product categories, as well as the specific timeline for their DPP implementation, because the process for the Delegated Acts (DA) - foreseen in the ESPR Regulation- has not been finalised. As a result, the specific requirements for the implementation, the exact products and categories, and their very same exact date of entry into force remains unknown.

To address this, it is crucial to highlight the benefits of DPP adoption, provide adequate preparation time, and minimize administrative burdens for SMEs, as foreseen in art. 4 of the ESPR¹, and remain proportionate on the requirements that will be part of the DPPs. In addition, a coordination exercise for the interoperability of the systems should be further developed. This report offers examples and lessons, such as Finland's and Germany's initiatives, and references the International Material Database System (IMDS), which streamlines data reporting, ensures compliance, and facilitates recycling efforts.

SPECIFIC CHALLENGES FACED BY SMEs

¹ ESPR Art. 4 *"In the delegated acts adopted pursuant to paragraph 1, the Commission shall provide economic operators with sufficient time to comply with the eco-design requirements laid down in those delegated acts, particularly taking into consideration the needs of SMEs, in particular microenterprises. The date of application of a delegated act shall not be earlier than 18 months from its entry into force, except in duly justified cases for the whole act or for some specific requirements, or except in cases of partial repeal or amendment of delegated acts, where an earlier date of application may be set."*

SMEs are facing significant challenges in adopting the DPP, with a lack of financial resources and technical capabilities being two of the main obstacles. Many SMEs, particularly in more traditional sectors, do not have adequate digital infrastructure or internal capacity to meet the new regulatory requirements.

Additionally, the report highlights that in many Member States, there are no specific initiatives aimed at helping SMEs transition to DPP compliance, reflecting a mismatch between the practical needs of businesses and the existing governmental or EU-level initiatives.

TECHNOLOGICAL INTEGRATION AND INTEROPERABILITY

There is an emerging trend of some countries adopting innovative technologies to facilitate DPP implementation, such as blockchain to ensure traceability and transparency across value chains. In complex sectors like construction and agri-food, these technologies are seen as essential for handling data complexity and ensuring transparency along the entire production chain.

Many SMEs, particularly in more traditional sectors, do not have adequate digital infrastructure or internal capacity to meet the new regulatory requirements. The complexity of data collection and the lack of interoperability between systems are significant technical barriers.

Despite the potential of these advanced technologies, many SMEs lack the resources or knowledge to implement solutions like blockchain or traceability systems based on QR codes or RFID. The lack of interoperability between systems also presents significant technical barriers for SMEs.

FINANCIAL SUPPORT AND THE NEED FOR FLEXIBILITY

The result of the methodologies used in this report highlight a strong need for direct financial support to enable SMEs to invest in the infrastructure and processes required to implement DPPs. This tool will require investment in both CAPEX (IT infrastructure) and OPEX (staff training, system maintenance). Without grants or targeted financial support, there is a risk that the high cost of compliance will drive SMEs out of the market.

Additionally, there is a clear position of the companies for a phased implementation approach, where SMEs can start by meeting basic requirements and gradually adapt to more complex regulations. This gradual approach will help SMEs to adapt in a sustainable way and avoid immediate pressure on their already limited resources.

SECTORAL COORDINATION AND COLLABORATION

Collaboration between national governments, sector organizations, and companies has proven effective in some countries, as evidenced by successful public-private partnerships. However, there is still a lack of coordination in many Member States. The absence of a coordinated plan in

some countries can hinder the uniform implementation of DPPs, with many stakeholders feeling left out of the standardization process.

The need for technical committees and guidance platforms represents an opportunity to provide SMEs with the knowledge and tools they need. However, for this to be effective, continuous collaboration among all stakeholders is essential to ensure that solutions are tailored to the realities faced by SMEs.

3.2. Recommendations

i. Enhance Awareness and Capacity Building for SMEs

- **Action I** Increase **awareness efforts** through targeted information campaigns, especially via **webinars** and **practical mentoring and training sessions**. These initiatives should be tailored to the specific needs of each Member State sector.
- **Objective I** Ensure that SMEs fully understand the requirements of the DPP and how it will affect their operations. **Training needs** to be more than just awareness-raising and include **practical demonstrations** and **implementation tools** that SMEs can use immediately.

ii. Develop Simplified Technical Tools

- **Action I** Develop **technical support platforms** offering **sector-specific reference models**, **self-assessment tools**, and **test environments/ test beds** for SMEs. The creation of **centralized technical support hubs** that provide practical guidance would also be beneficial.
- **Objective I** Facilitate DPP implementation by reducing the technical and administrative complexity. Tools should be **intuitive**, **affordable**, and **tailored** to the limited capabilities of SMEs.

iii. Provide Targeted Financial Support

- **Action I** Introduce **grants** and **funding lines** specifically aimed at helping SMEs cover the costs of **IT infrastructure** acquisition and **staff training**.
- **Objective I** **Reduce the financial burden of DPP compliance**, ensuring that all companies, regardless of their size, can meet the legal requirements.

iv. Harmonization and Interoperability

- **Action I** Promote **harmonization of standards** across the EU, ensuring that DPP platforms are interoperable and can be **easily integrated** with existing systems in different sectors. The creation of **EU-wide interoperability standards** is crucial to ensure effective communication between different stakeholders.
- **Objective I** **Simplify data exchange between SMEs and stakeholders**, fostering a more transparent single market and facilitating traceability and compliance throughout the value chain.

v. Reliability of Data

- **Action I** Ensure **Data accuracy and authenticity, standardize procedures** and **leverage advanced technologies** such as blockchain to enhance data security and traceability.
- **Objective I** **Enhance the reliability of data in the DPP**, ensuring that it serves as a trusted and effective tool for all stakeholders.

vi. Phased and Flexible Implementation

- **Action I** Adopt a **phased implementation** approach, starting with **minimum requirements** that can be gradually expanded as SMEs adapt. **Flexible timelines** should be ensured, with extended deadlines for sectors facing major adaptation challenges.
- **Objective I** **Avoid excluding SMEs from compliance** by allowing them to grow sustainably as they adapt to the new regulations.

vii. Foster Innovation and Public-Private Collaboration

- **Action I** Encourage **public-private collaboration** involving business organizations, research centres, and governments to develop and implement innovative solutions, such as the use of blockchain for traceability and **digital platforms** that centralize product data.
- **Objective I** Leverage the strengths of each sector to create effective and **sector-specific solutions** that can be easily adopted by SMEs.

viii. Collaboration between European Commission and national entities

- **Action I** **Robust collaboration between the European Commission and the national entities of the Member States** focusing on harmonizing data architecture, setting common standards, and facilitating the exchange of best practices.
- **Objective I** **Tackle challenges, streamline processes, and ensure** that the DPP meets the needs of all stakeholders.

ix. Establish Continuous Dialogue Forums

- **Action I** Create **continuous dialogue forums** that allow stakeholders to exchange best practices, follow the challenges faced by SMEs, and regularly review DPP standards.
- **Objective I** **Ensure a continuous evolution** of the cross-industry interoperable DPP system, adjusting to new market realities and the needs of SMEs dynamically and collaboratively.

4. Regulatory Framework



4.1. EU Sustainability Regulation

The objective of the European Union (EU) is “To make Sustainable Products the Norm by introducing requirements to make almost all products on the European market sustainable and eco-friendly.”

According to the latest UN projections, the **global population** is expected to **grow to around 9.7 billion in 2050**, meaning the equivalent of almost **three planets** would be required **to provide the natural resources needed** to sustain current lifestyles. Partly as a result, the **annual global extraction of materials is growing**, posing a major environmental risk at the global level. Natural resource extraction and processing generate about half of the total greenhouse gas (GHG) emissions and more than 90% of water stress and biodiversity loss. **European consumption trends** in this respect are a **cause for concern**: if they persist, the **European Green Deal goals of reaching zero net emissions of greenhouse gases by 2050 will be more difficult to meet**. Europe is also relatively dependent on external sources of natural resources and energy, leading the Commission to develop policies

to enhance “open strategic autonomy” when vulnerabilities were highlighted during the COVID-19 pandemic.

One way to help tackle the above is to **decouple economic growth from resource use**. The EU’s progress in this respect in recent years is mixed: despite some periods of absolute decoupling since 2000, starting from 2013 the **use of material resources in the EU has been increasing** again (e.g. 4 % in 2013-2017). As a result, we have moved from absolute decoupling to re-enter a phase of relative decoupling.

In its path of sustainability, the COM has been launching several public policy initiatives of the greatest relevance, to be a world leader in climate change action, stop the loss of biodiversity, and reduce pollution as well as fulfil the goals taken at the international level - the [Paris Agreement](#)

[and the UN Agenda 2030 - Sustainable Development Objectives \(SDGs\).](#)

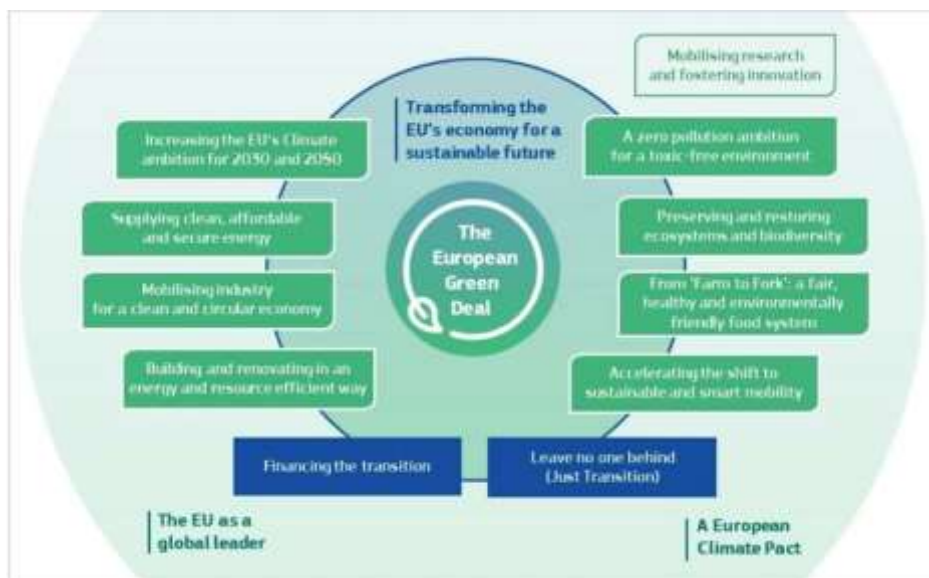
In **2019**, COM presented a new growth strategy - [The European Green Deal](#)² - aiming to transform the EU into a fair and prosperous society with a modern, resource-efficient, and competitive economy, where there will be no net emissions of greenhouse gases in 2050, and economic growth is decoupled from resource use.

It is an integral part of this Commission’s strategy to implement the United Nations’

2030 Agenda, in particular, SDG 12 on “Responsible Consumption and Production” and the other priorities announced in President von der Leyen’s [Political Guidelines](#).

The European Green Deal, with its key ambitions to make Europe the first climate-neutral continent by 2050 and accelerate the transition to a circular economy model, is described by the Commission as *the “bedrock” of the ESPR initiative*.

EU GREEN DEAL POLICY AREAS



In line with the EU’s 2050 climate neutrality goal under the Green Deal, the COM proposed, in **March 2022**, the **first package** of measures to speed up the transition towards a circular economy, as announced

in the [Circular Economy Action Plan for a cleaner and more competitive Europe](#)³.

The new Circular Economy Action Plan put forward a set of measures to allow the EU’s industry to seize these opportunities. This plan, adopted in March 2020, intends to

² Communication from the Commission to the European Parliament, The European Council, the Council, the European Economic and Social Committee, and the Committees of the Regions | The European Green Deal | COM (2019) 640 final, 10 March

³ Communication from the Commission to the European Parliament, The European Council, the Council, the European Economic and Social Committee, and the Committees of the Regions | A New Circular Economy Action Plan for a Cleaner and More Competitive Europe | COM (2020) 98 final, March 11

ensure product sustainability, produce less waste, and empower consumers and public buyers to make more informed decisions on product purchases, focusing on the sectors that use the most resources and where the potential for circularity is high - **Electronics and ICT, Batteries and Vehicles, Packaging, Plastics, Textiles, Construction, and Food.**

In **2022**, the Communication from the Commission [On Making Sustainable Products the Norm](#)⁴ **addressed product design**, which determines up to 80% of a product's lifecycle environmental impact. It set new requirements to make products more durable, reliable, reusable, upgradable, repairable, easier to maintain, refurbish and recycle, and energy and resource efficient.

It also encompassed an [Ecodesign and Energy Labelling Working Plan 2022-2024](#)⁵ **to cover new energy-related product updates** and increased the ambition for products that are already regulated.

To support the deployment of sustainable products across the EU market, targeted sectoral initiatives were also launched. The [EU Strategy for Sustainable and Circular Textiles](#)⁶ - **By 2030, all textiles in the market will be durable, recyclable, and socially responsible.** The goals of this strategy also include the elimination of fast

fashion, promoting the most enduring textiles at affordable prices, and ensuring widespread access to profitable reuse and repair services.

On the other hand, the [revision of the Construction Products Regulation](#)⁷, aims to **create a harmonized framework to assess and communicate the environmental and climate performance of construction products.** New product requirements will ensure that the design and manufacture of construction products is based on the state of the art to make these more durable, repairable, recyclable, and easier to re-manufacture. It will also make it easier for standardization bodies to do their work of creating common European standards.

In **November 2022**, the Commission published a **second package**, including a proposal on new [EU-wide rules on packaging](#)⁸, to reach the objective of the European Green Deal and the new Circular Economy Action Plan to ensure that *“all packaging on the EU market is reusable or recyclable in an economically viable way by 2030”*.

As part of the European Green Deal, the legislative proposal for a Union certification framework for carbon removal drives progress towards the 2050 climate neutrality target. The stated aim of the initiative

⁴ Communication from the Commission to the European Parliament, The European Council, the Council, the European Economic and Social Committee, and the Committees of the Regions| On making sustainable products the norm| COM (2022) 140 final, March 30

⁵ Communication from the Commission Ecodesign and Energy Labelling Working Plan 2022-2024 2022/C 182/01

⁶ Communication from the Commission to the European Parliament, The European Council, the Council, the European Economic and Social Committee, and the Committees of the Regions| EU Strategy for Sustainable and Circular Textiles | COM (2022) 141 final, March 30

⁷ Proposal for a Regulation laying down harmonized conditions for the marketing of construction products, amending Regulation (EU) 2019/1020 and repealing Regulation (EU) 305/2011|COM (2022) 144 final, March 30

⁸ Proposal for a Regulation of the European Parliament and of the Council on Packaging and Packaging Waste, amending Regulation (EU) 2019/1020 and Directive (EU) 2019/904, and repealing Directive 94/62/EC| COM (2022) 677 final, November 30

approved by the parliament only in 2024, is to ensure high-quality EU-certified carbon removals, through a transparent and credible governance framework.

A **third package** was presented in **2023**, including a [proposal for regulating Green](#)

[Claims](#)⁹ by companies and guaranteeing a right to repair products and the revision of the [Waste Framework Directive](#)¹⁰ to promote the sustainable management of textile and food waste.

4.2. Ecodesign for Sustainable Products Regulation (ESPR)

The concept of Ecodesign represents an innovative approach to creating products, where sustainability is incorporated from the initial development stage. This methodology aims to minimize environmental impact throughout the product's life cycle, promoting resource efficiency, durability, and recyclability.

The [Ecodesign for Sustainable Products Regulation](#)¹¹ (ESPR), came into force on 18th July 2024. **It takes into consideration other regulations** to ensure they are consistent with existing policy provisions and other Union policies (e.g., the European Green Deal, Industrial Strategy for Europe, CEAP, EU strategy for Sustainable and Circular Textiles, Green Claims, Corporate Sustainable Due Diligence, Market Surveillance Regulation, Union legislation on waste, chemicals and food safety).

It also includes provisions on delegated act developments, regulation exemption rules, obligations of actors along the supply chains/value chains, regulation enforcement and compliance, policy, and standard harmonization among Members

States and with national policies, and SME implications.

The Ecodesign Regulation is the cornerstone of the Commission's approach to more environmentally sustainable and circular products. Replaces Directive 2009/125/EC of the European Parliament, and the Council of 21 October 2009, applicable to only 31(thirty-one) product groups, and expands the scope to define environmental sustainability requirements for almost all types of products on the EU market.

It is part of a package of measures, foreseen in the Communication from the Commission [On Making Sustainable Products the Norm - COM \(2022\) 140 final](#), that is central to achieving the objectives of the [Circular Economy Action Plan](#).

Establishes a framework for the setting of Ecodesign requirements that products must comply with to be placed on the market or put into service, to improve the environmental sustainability of products to make sustainable products the norm and to reduce the overall carbon and environmental footprint of products over their life cycle,

⁹ Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL on substantiation and communication of explicit environmental claims (Green Claims Directive) | COM/2023/166 final, March 22

¹⁰ Proposal for a Directive of the European Parliament and of the Council amending Directive 2008/98/EC on waste | COM (2023) 420 final, July 5

¹¹ Regulation (EU) 2024/1781 of the European Parliament and of the Council, of 13 June 2024, establishing a framework for the setting of Ecodesign requirements for sustainable products, amending Directive (EU) 2020/1828 and Regulation (EU) 2023/1542 and repealing Directive 2009/125/EC

ensuring the free movement of sustainable products within the internal market.

This new regulation **extends the Ecodesign approach**, to a much broader range of products (moving beyond energy-related products to a wide product scope); establishes **new Requirements and clarification of existing requirements**; foresees an **Horizontal approach** (Common Ecodesign requirements for products with similarities), and **increases focus on product information** (e.g. **Digital Product Passport**, Labels, and information requirements) and determines that **products awarded with the EU Ecolabel are presumed to comply with Ecodesign requirements**, provided that the criteria developed under this labelling scheme are at least as strict as the Ecodesign requirements.

Rules for making products more sustainable under the ESPR will be rolled out progressively for individual product groups or several product groups with similar characteristics.

The process will begin with a prioritization exercise, followed by the publication of a working plan that sets out the products and measures to be addressed. Development of product rules will then start, based on impact assessments and regular stakeholder consultation, under the Ecodesign Forum. **Adoption and publication of**

4.3. Digital Product Passport

The **adoption of a DPP is defined** as outlined in the European Union Commission's proposal for the new [Ecodesign for Sustainable Products Regulation](#) (**Article 9 to 12 and Annex III**).

the first ESPR working Plan are planned for Q4 2025.

ESPR is also adding new tools: **Mandatory Green Public Procurement, Prevention of the destruction of unsold consumer goods, and Market surveillance and customs controls.**

To **support SMEs** in this path (article 22 – ESPR), **COM** shall ensure some initiatives to help SMEs integrate environmental sustainability, including energy efficiency, into their value chain, and accompany ESPR Delegate Acts (Das) with digital tools and guidelines for SMEs to facilitate compliance. They also provide financial support to SME representatives for active participation in the Ecodesign Forum.

Member States shall act appropriately to help SMEs, in particular microenterprises, by consulting with SMEs and taking measures to help compliance including:

- One-stop shops to raise awareness of Ecodesign requirements
- Create networking opportunities for SMEs
- Financial support
- Access to finance
- Specialized management and staff training
- Organizational and technical assistance.

According to the proposal:

“(…) includes the creation of a digital product passport to electronically register, process and share product-related information

amongst supply chain businesses, authorities, and consumers. This is expected to increase transparency, both for supply chain businesses and for the general public and increase efficiencies in terms of information transfer. In particular, it is likely to help facilitate and streamline the monitoring and enforcement of the regulation carried out by EU and Member State authorities. It is also likely to provide a market-intelligence tool that may be used for revising and refining obligations in the future.”

The DPP is a key instrument to promote sustainable production by encouraging environmentally friendly manufacturing practices, extending product life cycles through enhanced durability and longevity, and optimizing product use to ensure efficient resource utilization. Additionally, it fosters circular value retention and extraction, opening new business opportunities while supporting companies and consumers in making informed, sustainable choices. By providing relevant information, the DPP facilitates the transition to a circular economy, enhances materials and energy efficiency, and ensures compliance with sustainability and circularity standards.

Future Developments and Implementation

Under the ESPR working plan, the European Commission will propose **specific requirements for product groups or horizontal measures through delegated acts**. These requirements will define the content of the DPP, specifying the data to be included for each product group. Other

relevant legislation may also incorporate such requirements.

The IT architecture of the DPP will rely on **harmonized standards** developed by the European Standardization Organization (**CEN/CENELEC JTC 24**), which includes four core Working Groups (WGs):

- **WG1 Strategic Advisory Group (SAG) I**
Focuses on coordinating cross-cutting issues, enhancing collaboration among working groups, and developing cohesive recommendations.
- **WG2 Unique Identifiers and Data Carriers I** development of standards aimed at publishing harmonized norms in the following areas: Unique identifiers; Access management, security, and confidentiality; Interoperability; Data-sharing protocols; Data formats and storage; Authentication and system integrity.
- **WG3 Security I** development of standards to publish harmonized norms related to: System security, access rights management, and confidentiality; Data authentication, reliability, and integrity.
- **WG4 Interoperability Framework I** develop standards for publishing harmonized norms in the following domains: Technical, semantic, and organizational interoperability; Data processing, exchange protocols, and formats

The European Commission has mandated CEN/CENELEC to develop **eight core standards for the DPP**, including (i) **Unique identifiers**, (ii) **data carriers and link between physical product and digital representation**, (iii) **access rights management, information security and business confidentiality**; (iv) **Technical**,

semantic and organizational interoperability; (v) Data processing, exchange protocols and formats; (vi) Data storage, archiving and persistence; (vii) Data authentication, reliability and integrity; (viii) Application Program Interfaces (APIs) for lifecycle management and search functionality.

The EU will adopt up to **five delegated and implementing acts under ESPR**, leveraging these standards and, if necessary, **common technical specifications**, to define the DPP IT architecture elements.

Timeline for Implementation

From **18 February 2027**, the DPP will **become mandatory for certain battery types**. To prepare, the European Commission is drafting a delegated act to establish requirements for DPP service providers. This process includes an impact assessment to evaluate potential options, their effects, and the feasibility of a certification scheme to ensure compliance.

5. Surveys



The survey was carried out using **two tailored questionnaires** distributed by the European Commission to members of the SME Envoy Network. **One** questionnaire was **designed for SME Envoys**, representing **institutional respondents**, while the **other targeted business organizations operating at European, national, regional, or sectoral levels**.

Both questionnaires included simple yes-or-no questions, complemented by free-text fields where respondents could elaborate or provide examples. The free-text responses, rich in diversity and detail, were analyzed to identify recurring themes. These were then categorized and summarized into thematic groups, with notable examples highlighted to provide actionable insights.

5.1. Institutional Survey

The questionnaire, consisting of **eight questions**, focuses on the following **areas**:

Awareness of National Initiatives | Identification of existing initiatives in your country aimed at helping SMEs prepare for upcoming legislation requiring the implementation of DPP.

Awareness of Upcoming Initiatives | Insights into any planned initiatives in your country designed to assist SMEs in preparing for DPP requirements.

Reports and Best Practices | Knowledge of reports, studies, or best practices within your country that address the introduction and implementation of DPP.

Role of the European Commission | Perspectives on how the European Commission can support SMEs in simplifying and facilitating the adoption of DPP.

Role of National Governments | Views on how national governments can contribute to enabling and supporting SMEs in the effective implementation of DPP.

5.1.1. Results

The survey targeted to the SME Envoys, received **20 replies** from across the European Union.

Total Answers

20



5.1.2. Main Findings



AWARENESS OF INITIATIVES UNDERTAKEN OR PLANNED TO HELP SMEs PREPARE FOR THE REQUIREMENTS IN THE LEGISLATION REGARDING DPP

The analysis outlined here is based on the responses of 20 EU Member States and highlights the efforts undertaken or planned to help SMEs adapt to the upcoming DPP requirements. The initiatives are grouped into five key areas: **(i) Webinars and Training, (ii) Reports, (iii) Technical Committees and Guides, (iv) Projects and Financing, and (v) Innovative Technologies and Platforms.** These initiatives demonstrate proactive efforts by various Member States to assist SMEs in navigating the new regulatory landscape.

Overall, the efforts to help SMEs adapt to DPP legislation are promising, particularly in terms of **awareness-raising, funding initiatives, and technical guides.** However, gaps remain, particularly in terms of **practical, hands-on support and tailored implementation strategies** for SMEs across all sectors. The challenge lies in ensuring these initiatives move beyond awareness to **concrete, actionable support** that enables SMEs to fully comply with DPP requirements.

The initiatives already underway provide a strong foundation, but further efforts are needed to ensure that all SMEs can successfully transition to the new DPP requirements.

KEY AREAS	TAKEAWAYS	EXAMPLES
Webinars and Training	<p>Comprehensive multi-session webinars offer progressive learning, allowing SMEs to engage with the material over time.</p> <p>Regional focus ensures that training sessions are relevant to the local business environment.</p> <p>Integrated training tools combine digitalization and sustainability elements, providing a holistic approach to preparing SMEs for DPP requirements.</p>	<p>Austria A six-part webinar series on the ESPR, including DPP topics, offers a structured approach for gradually and thoroughly understanding the legislation.</p> <p>Belgium A webinar titled "Decrypting the Digital Product Passport" focused on obligations, traceability, and transparency, emphasizing specific challenges faced by businesses in Wallonia and across Europe.</p> <p>Ireland The CIRCULEIRE network organizes thematic workshops on circular economy topics, including the DPP, with a hackathon planned in late February in which participants will explore the role of DPPs in driving the circular economy, while the business association</p>

KEY AREAS	TAKEAWAYS	EXAMPLES
		<p>Ibec holds public webinars to raise cross-industry awareness. The Responsible Business Forum also held two webinars on ESPR, including DPP topics. Enterprise Ireland plans to hold a webinar on Ecodesign and the DPP in Q1 2025.</p> <p>Netherlands MVO Netherlands hosted a webinar in February 2024 on the DPP as a tool for meeting CSRD requirements. Additionally, GS1¹² raised awareness through events such as the Congress on Digital Product Passports in March 2024 and the webinar "Building Blocks for a Digital Product Passport" in April 2024.</p> <p>Germany The ZVEI association launched the Forum DPP4.0 for its 1100 member companies (mostly SMEs), focusing on: Regulatory requirements from ESPR; Technical implementation, including updates from standardization work in JTC 24; Existing use cases.</p>
<p>Reports</p>	<p>Real-world pilot insights provide SMEs with practical examples of how DPPs function in a business setting.</p> <p>Sector-specific reports ensure guidance is relevant to industries, providing clear pathways for DPP adoption.</p> <p>Reports like those from Sweden highlight both the challenges and opportunities for SMEs, ensuring they understand the value of DPPs beyond compliance.</p>	<p>Finland Sitra's report Digital Product Passports: Catalysing Europe's Sustainable Growth highlights pilot tests using real machines, synthetic data, and QR codes to simplify DPP adoption, showcasing the value of rapid, practical experimentation.</p> <p>Germany The report Showcasing the Value of the EU Battery Passport demonstrates how battery passports can reduce environmental impacts and save costs for recyclers, providing clear evidence of DPP benefits.</p> <p>Portugal The Sustainability Report 2023 by CITEVE shows how the Portuguese</p>

¹² GS1 is a nonprofit, international organization developing and maintaining its own standards for barcodes and the corresponding issue company prefixes. The best known of these standards is the barcode, a symbol printed on products that can be scanned electronically. GS1 has 118 local member organizations and over 2 million user companies. Its main office is in Brussels

KEY AREAS	TAKEAWAYS	EXAMPLES
		<p>textile and clothing sector can use DPPs to align with sustainability goals, offering sector-specific guidance for adaptation.</p> <p>Sweden A report by the Swedish Agency for Economic and Regional Growth reveals low SME awareness of DPPs and emphasizes the need for guidance on data collection and value chain integration, highlighting business opportunities like spare parts and repair services.</p>
<p>Technical Committees and Guides</p>	<p>Mirror committees ensure that national standards stay aligned with EU frameworks, providing SMEs with clear and consistent guidelines.</p> <p>Guidance platforms offer practical tools for data collection, which are essential for SMEs to meet DPP requirements in a structured and efficient manner.</p>	<p>Cyprus The Cyprus Organization for Standardization is monitoring DPP-related standards and establishing a mirror committee to ensure alignment with CEN/CENE-LEC standards.</p> <p>Denmark The Danish Business Authority is looking into how existing infrastructures (such as the Peppol network) for eDocuments can be used for businesses to share sustainability data and analyze future data-sharing infrastructures to support DPPs.</p> <p>Portugal The Portuguese Quality Institute (IPQ) created a Technical Committee (IPQ/CT 228)¹³, to participate in European standardization efforts for DPPs, with four mirror working groups aligned with CEN/CENELEC JTC 24 WGs on strategic advisory, unique identifiers, security, and interoperability.</p> <p>Italy The "Circular and Sustainable Made in Italy" project, involving universities, research centers, and</p>

¹³ Members: AIMMAP – Association of Metallurgical and Metalworking and Related Industries; AIMMP – Portuguese Association of Wood and Furniture Industries; ANIMEE – Portuguese Association of Electrical and Electronic Enterprises; ANIVEC - National Association of Clothing and Apparel Industry; APICCAPS – Portuguese Footwear, Components, Leather Goods Manufacturers' Association; APLOG – Portuguese Logistics Association; APTINTAS – Portuguese Paint Association; ATP – Textile and Clothing Association of Portugal; CITEVE – Technological Centre of the Textile and Clothing Industries in Portugal; FIOVDE –Vegetable Oil Industries and Derivatives Federation; IEP – Portuguese Electrotechnical Institute; EWF - European Federation for Welding, Joining and Cutting (Portugal); ICS – Civil Engineering, University of Porto; Battery Cluster Portugal ; APIP - Portuguese Plastics Industry Association; IAPMEI - Agency for Competitiveness and Innovation; CTCV - Technological Center for Ceramics and Glass; CATIM - Technological Center for the Metal working industry; ANI - National Innovation Agency; APICER - Portuguese Association of Ceramics and Domestic Glass Industries

KEY AREAS	TAKEAWAYS	EXAMPLES
		businesses, focuses on technologies for DPP implementation in the fashion industry , a key sector for Italy.
Projects and Financing	<p>Public-private partnerships leverage funding to drive DPP innovation and adoption.</p> <p>Pilot projects, compliant with EU guidelines (interoperable sovereign data and technology neutral), offer practical, hands-on examples of how DPPs can be implemented in SMEs' value chains.</p> <p>Blockchain initiatives showcase how cutting-edge technologies can support DPP adoption in complex industries.</p>	<p>Austria The Ministry for Climate Action launched a €2.9 million grant to fund a joint research project between public and private sectors, fostering innovation in DPP implementation.</p> <p>Finland The Real-Time Economy (RTE) project conducted two pilot tests on DPPs: verifying company identities using a digital wallet and testing raw material traceability (e.g., beef, oats, wood).</p> <p>Italy The CircThread project¹⁴, funded by Horizon 2020, mapped 76 private DPP initiatives, leveraging blockchain for supply chain traceability, particularly in the fashion industry.</p> <p>Sweden The The ProPare project, developed a prototype for DPP implementation across industries, while the Trace4value initiative, involving companies and research institutions, explores sustainability and DPP readiness through multiple sub-projects.</p> <p>Portugal The Programa PME na Rota da Sustentabilidade program, led by IAPMEI, promotes stakeholder engagement and knowledge sharing in sectors like textiles, electronics, and batteries, with 40 initiatives, including <i>Digital Passport in Industry</i>.</p>
Innovative Technologies and Platforms	Digitized export platforms reduce administrative burdens for SMEs, streamlining compliance processes.	Greece The easyagroexpo.gov.gr platform streamlines the export of Greek agricultural products by digitizing certification and traceability , offering a model for other industries.

¹⁴ The project focused on how to increase appliance lifespan, repairability and reuse

KEY AREAS	TAKEAWAYS	EXAMPLES
	<p>Blockchain solutions offer advanced traceability and transparency, enabling SMEs to meet complex DPP requirements.</p> <p>Standardized labelling offers a clear and practical approach to improving supply chain sustainability through DPPs.</p>	<p>Poland The Pilot of Passporting Polish Food focuses on traceability for potato, pork, and beef products, linking supply chain data to promote sustainable development through digital passports.</p> <p>Portugal The <i>Blockchain.PT Mobilizing Agenda</i> involves 56 organizations using blockchain technology to ensure interoperability and support DPP integration across value chains.</p>



ROLE OF EUROPEAN COMMISSION TO MAKE THE IMPLEMENTATION OF THE DPP EASIER FOR SMEs IN YOUR COUNTRY

The responses encompass both **general advice and specific questions and concerns**. Many of the proposals **align closely with the conclusions of the CIRPASS¹⁵ report** on the **costs and benefits of DPPs for SMEs**. However, there are **significant concerns regarding the speed, complexity, and costs associated with DPP implementation for SMEs**. Numerous proposals emphasize the **need for improved communication, tools, and financial support to SMEs in this transition**.

There is also some praise for the Commission's efforts to involve Member States and organizations in the implementation of the DPP.

Based on the answers given, we could identify **5 areas of action**:

- i. **Resources and Standardization**
- ii. **Communication and Guidance**
- iii. **Tools and Technical Support**
- iv. **Costs and Funding**
- v. **Phased and Flexible Implementation**

¹⁵ Funded by the European Commission under the Digital Europe Programme, CIRPASS is a collaborative initiative to prepare the ground for the gradual piloting and deployment of a standards-based Digital Product Passport (DPP) aligned with the requirements of the Proposal for Eco design for Sustainable Product Regulations (ESPR), with an initial focus on the electronics, batteries, and textile sectors. Many SME envoys mention CIRPASS and its work. The project consortium was composed of 31 partners representing thousands of industrial, research, digital, and international, standards, organisations across Europe and beyond. The 18-month project ended in March 2024.

TOP 5 SUGGESTIONS

- 1. Ensure sufficient resources for the standardization activities** related to ESPR – Ecodesign Sustainable Products Regulation, including making sure that the subsequent harmonized standard sufficiently reflects the legislation requirements.
- 2. Documentation and dissemination of case studies and success stories** of SMEs that have effectively implemented DPPs, highlighting the processes, benefits, and lessons learned. This is crucial for encouraging the adoption of DPP among SMEs. In this sense, the creation of channels for SMEs to provide feedback on the challenges they face and the support they need and use this feedback to refine and improve EU initiatives.
- 3. Guidance should be published in all 23 languages** of the Union. This should be accompanied by online training videos (also 23 languages).
- 4.** There should be **simplified guidelines and toolkits** that are easy to understand and apply, reducing the complexity and administrative burden.
- 5. Targeted support measures for SMEs** should be foreseen to help cover costs, for example for product design, durability, and the creation of digital product passports.

KEY AREAS	SUGGESTIONS/RECOMMENDATIONS
Resources and Standardization I SMEs face significant challenges due to the need for sufficient resources for standardization activities and the complexity of legislative requirements. The lack of coordination between different regulations and the necessity for harmonized standards increase the burden on SMEs.	Germany and Netherlands emphasize the need for better coordination between product group-specific standards and overarching standardization efforts like JTC 24. This harmonized approach reduces the strain on SMEs and promotes a cohesive standardization process across different sectors. For Germany, SMEs need support by product group specific standard reference models for data points and formats as standard interface specifications and exchange execution environments. Because of the individuality of SME business, these environments must be easy configurable. This should be supported by implementation guidelines for reference models and formats as well as test environments, so that there is no specific IT capability required. Portugal also highlights the importance of developing and promoting EU-wide standards to ensure consistency and interoperability across the Single Market.
Communication and Guidance I Inadequate communication and lack of clear guidance are major	Belgium suggests publishing guidance in all 23 EU languages, accompanied by online training videos.

KEY AREAS	SUGGESTIONS/RECOMMENDATIONS
<p>barriers to the effective implementation of DPPs. The complexity and administrative burden are recurring concerns among SMEs.</p>	<p>Finland recommends organizing country-specific information events and distributing practical information via dedicated websites.</p> <p>Netherlands appeals for transparent and clear communication from the EU regarding the timeline, requirements, and expectations for DPP implementation. As the DPP is a new concept for many businesses, maintaining open communication is essential for smooth adoption.</p> <p>Cyprus recommends simplified toolkits and training programs to make the DPP easier to understand and apply. These resources would also help foster the sharing of best practices across different sectors.</p> <p>Germany suggests having an easy understandable implementation guide including instructions.</p>
<p>Tools and Technical Support I The need for simplified tools and technical support is crucial to reduce the complexity and costs associated with DPP implementation. SMEs often lack the technical expertise and resources to manage these requirements independently</p>	<p>Denmark and Estonia highlight the importance of targeted support measures, such as product group-specific reference models and accessible test environments.</p> <p>Germany suggests providing technical support systems and organizational assistance to help SMEs navigate the DPP implementation process effectively. When the entire DPP system is established, SME would very much appreciate technology support services, not only having the web-portal for customers. It would help to have various suitable interfaces (APIs) for making registration easy, e.g. by having offline capabilities to register a complete batch by just performing file-transfer.</p>
<p>Costs and Funding I High costs and the need for funding are significant barriers for SMEs. The lack of affordable third-party services for managing DPPs is a major concern.</p>	<p>Belgium proposes that the European Commission should provide DPP services to SMEs, either for free or at a reduced cost.</p> <p>Lithuania suggests utilizing EU structural funds to help SMEs introduce DPPs. These financial support measures can alleviate the cost burden on SMEs and encourage compliance.</p>
<p>Phased and Flexible Implementation I Implement DPPs all at once can be overwhelming for SMEs due to the immediate need</p>	<p>Austria (Federal Economic Chamber) recommends starting with a minimal level of requirements and scaling them up gradually. This phased approach allows SMEs to</p>

KEY AREAS	SUGGESTIONS/RECOMMENDATIONS
for compliance with complex requirements. The feedback from several countries suggests that the European Commission should consider a phased approach to DPP implementation, allowing SMEs to gradually adapt to the requirements.	adapt progressively without being overwhelmed by immediate, extensive requirements. Germany also supports a phased implementation, suggesting that SMEs begin with a simplified system focused solely on decentralized DPP data handling before transitioning to the full DPP system.

 **MEASURES/INITIATIVES THAT COULD BE PUT INTO PLACE IN MEMBER STATES TO FACILITATE AND HELP SMES IMPLEMENTATION ON DPP**

The replies highlight various measures and initiatives that countries believe could help **SMEs** implement **DPPs** more effectively. Each country suggested a combination of **technological, financial, and regulatory support, simplified tools and resources standardization efforts, targeted training, collaboration, and stakeholder engagement**, with an emphasis on **tailored approaches** to meet the specific needs of SMEs.

Key **takeaways** include:

- 1. Financial support and grants** (Austria, Spain) to help SMEs cover the costs of IT infrastructure and workforce training for DPP compliance.
- 2. Centralized helpdesks and simplified toolkits** (Belgium, Cyprus) that provide SMEs with clear, accessible guidance and support.
- 3. Harmonized standards and interoperability initiatives** (Portugal, Denmark) to ensure consistency across the EU and reduce regulatory complexity.
- 4. Targeted training and awareness campaigns** (Finland, Sweden) to equip SMEs with the necessary knowledge and skills for DPP adoption.
- 5. Collaborative stakeholder engagement** (Germany, Greece) to foster coordination between SMEs, national governments, and the European Commission.

Implementing these best practices will ensure that SMEs across the EU are better equipped to navigate the complexities of DPP legislation, ensuring smoother compliance and greater overall participation in the transition to sustainable product management.

KEY AREAS	SUGGESTIONS/RECOMMENDATIONS
Financial Support for SMEs	<p>Austria recommends that relevant ministries provide specific grants to finance capital expenditures (CAPEX) required for setting up IT infrastructure for DPP implementation. Additionally, they suggested covering operational expenditures (OPEX), such as workforce training, to ensure SMEs can handle the new requirements.</p> <p>Lithuania appeals for financial measures to help SMEs, especially smaller enterprises, to cover the costs associated with DPPs.</p> <p>Spain suggests financing pilot projects run by technological centers in collaboration with SMEs to help businesses explore and understand DPP implementation in a practical setting.</p>
Simplified Tools and Resources	<p>Belgium proposes the establishment of a product-oriented helpdesk that would serve as a central point of contact, offering guidelines, best practices, and information for SMEs. This helpdesk could assist businesses with the collection, aggregation, and formatting of product data.</p> <p>Cyprus recommends pilot programs to demonstrate the benefits of DPP adoption. These pilots would showcase successful case studies from local SMEs, making the process more tangible and easier to understand.</p> <p>Portugal suggests a phased approach to DPP implementation, recognizing that different sectors and stages of the supply chain have unique needs. They also highlighted the need for harmonization of legal and industrial initiatives to prevent regulatory overload.</p>
Standardization and Harmonization	<p>Portugal stresses the need for interoperability in the collection and exchange of product data across international supply chains. They recommended that the European Commission focus on aligning ESG benchmarks to ensure consistency and comparability across various frameworks.</p> <p>Denmark supports further participation in the CEN-CENELEC standardization efforts to ensure that public authorities from all Member States are aligned. This would ensure that DPP standards are harmonized and help SMEs avoid regulatory confusion.</p> <p>Poland emphasizes the importance of promoting participation in working groups that define DPP frameworks, especially in CEN/CLC/JTC 24, which focuses on system frameworks for DPPs.</p>

KEY AREAS	SUGGESTIONS/RECOMMENDATIONS
Targeted Training and Awareness Campaigns	<p>Belgium suggests launching an information campaign targeting economic operators in sectors like toys, focusing on DPP requirements and leveraging public procurement practices that prioritize products with DPPs.</p> <p>Finland notes the need for ongoing training and practical guidance for SMEs, especially in local languages. They proposed that initiatives like the Finnpass project be extended beyond 2025 to provide continuous support.</p> <p>Sweden recommends providing targeted information to business organizations in the sectors that will face DPP requirements first. This would ensure early engagement and readiness.</p>
Collaboration and Stakeholder Engagement	<p>Germany emphasizes the importance of official guidance documents and helpdesks to provide clear, sector-specific information. These resources would assist SMEs in navigating the DPP framework and avoiding compliance issues.</p> <p>Greece recommends good cooperation between SMEs, government authorities, and the European Commission to ensure effective DPP implementation. They stressed the importance of sharing previous good practices to support effective regulatory compliance.</p>

TAKEAWAYS
<ul style="list-style-type: none"> → Grants for IT infrastructure and training help SMEs cover the costs of upgrading systems and preparing staff for DPP-related processes. → Collaborative pilot projects provide SMEs with real-world examples of DPP implementation, reducing the learning curve and facilitating smoother adoption. → Central helpdesks provide SMEs with a single access point for all DPP-related information and support. → Pilot programs with case studies offer practical demonstrations of DPP benefits, helping SMEs understand how to implement DPPs in their specific contexts. → Interoperability and harmonization efforts ensure that SMEs can work with consistent data standards across international supply chains, reducing complexity. → Involvement in standardization efforts allows Member States to influence the development of DPP frameworks and ensure SMEs are considered in the regulatory process.

- **Sector-specific awareness** campaigns help raise awareness about DPP compliance in key industries, driving early adoption.
- **Ongoing, localized training initiatives** ensure that SMEs receive continuous support as the DPP framework evolves.
- **Targeted outreach to first-affected sectors** ensures those most impacted by DPP requirements are fully prepared.
- **Helpdesks and guidance documents** provide SMEs with the specific information they need, reducing confusion around compliance.
- **Collaboration between stakeholders** ensures that SMEs receive the support they need from both national and EU authorities, fostering a more coordinated approach to DPP implementation

5.2. Business Organizations Survey

The questionnaire is divided into five sections covering a total of **24 questions** (10 open-ended and 14 closed-ended questions).

Section 1 | About you – identification and characterization of the business organization

Section 2 | Awareness-raising

Section 3 | Advantages and incentives/driving factors

Section 4 | Needs

Section 5 | Recommendations

5.2.1. Results

The survey targeted to **business organizations** received **37 responses** from across the European Union.

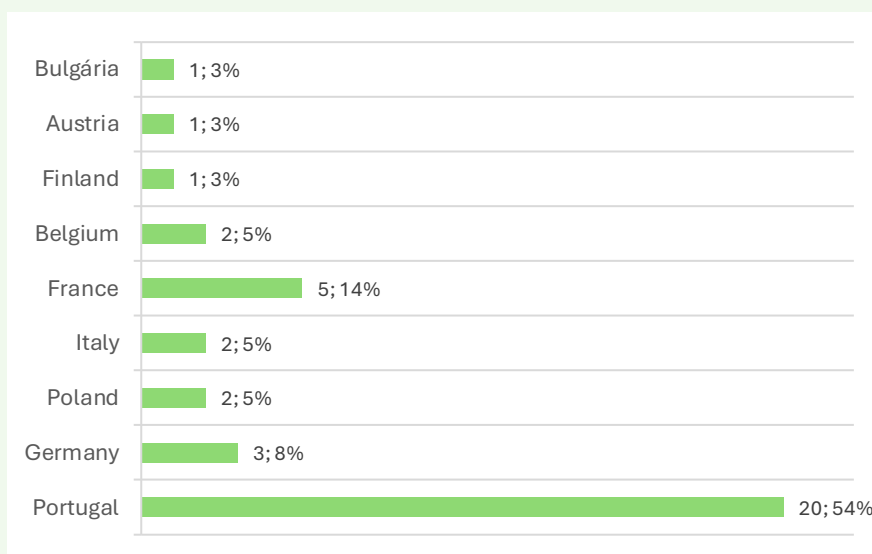
Total Answers

37

A contribution was also received from ESBA, who, despite not responding to the questionnaire, provided us with a best practice example from the automotive industry, which is reflected in this point of the report.



HEADQUARTERS LOCATION | NATURE OF THE BUSINESS ORGANIZATION



Quantitative Analysis:

- **Country Representation |** Only 9 EU Member States participated in the survey, which is a small fraction of the total EU countries, indicating a limited geographical reach.

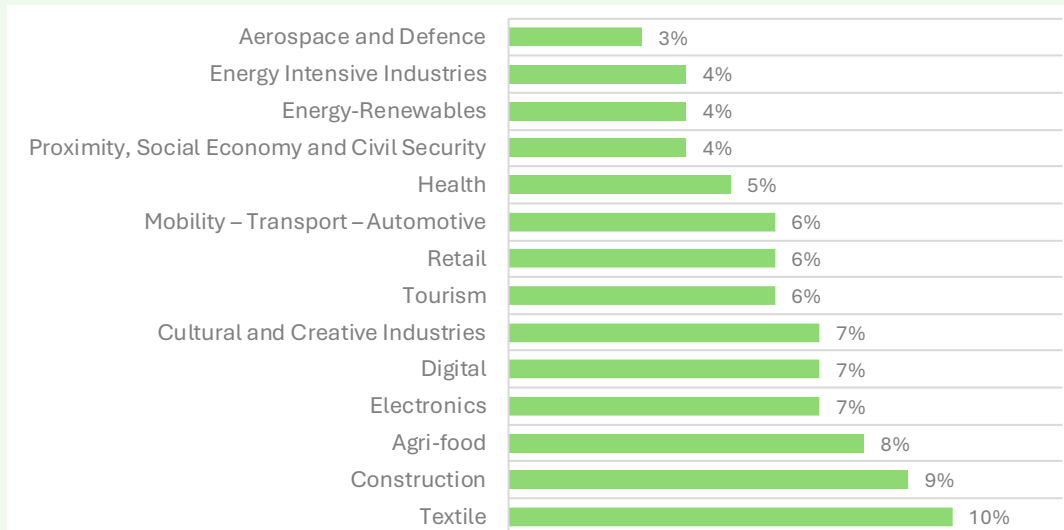
Qualitative Analysis:

- **Considerations for Data Interpretation |** Although the data is strongly based on Portuguese responses, this concentration of input could help highlight specific trends, challenges, or opportunities that might otherwise have been diluted in a more dispersed dataset. Nevertheless, it's important to acknowledge that these findings may not fully represent the situation across all EU Member States.
- **Positive Steps Towards Inclusivity |** The survey's current scope provides a useful snapshot of the participating countries. Moving forward, increasing participation from other EU Member States will be crucial for developing a more inclusive and representative understanding of the issues at hand, thereby ensuring that any resulting policies or recommendations are well-informed and widely applicable.

Even though the results reflect the perspectives of a limited number of countries, the survey offers valuable insights and serves as a solid foundation for understanding specific regional dynamics within the EU. Future efforts to broaden participation will further enhance the richness and applicability of the data, contributing to more inclusive and effective EU-wide initiatives.

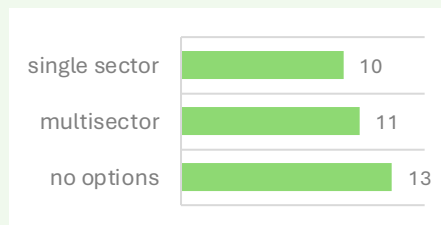


INDUSTRIAL ECOSYSTEM(S)



Considering the positioning of the respondents in the 14 industrial ecosystems defined by the European Commission, there is a bigger representation of the **textile sector** (10%), followed by **construction** (9%) and **agri-food** (8%).

It is also important to **highlight** the following:



→ **13 respondents out of 34 placed themselves in "Other"**, not placing themselves in any of the predefined categories.

→ Of the 34 respondents, 11 positioned themselves in several industrial ecosystems, while 10 of them chose only one sector of activity.

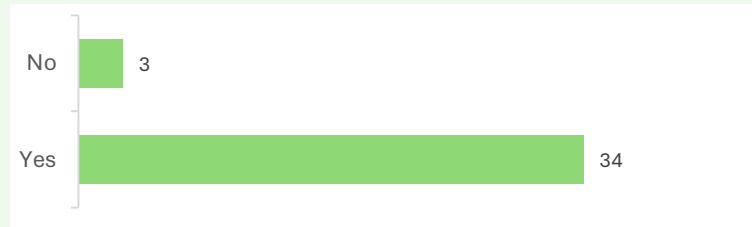
These data suggest that many entities do not match with the EU's predefined industrial ecosystems. Several factors contribute to this, including:

1. **Hybrid or cross-sector business models** that span multiple industries, making it difficult for these companies to identify with just one ecosystem.
2. **Sectors that do not fit into the categories identified (jewellery and cosmetics)**
3. **Lack of understanding** of the concept of industrial ecosystems.

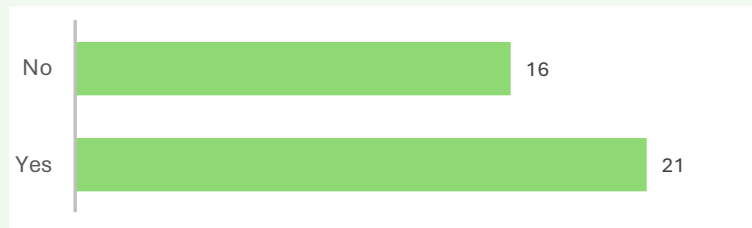
5.2.2. Main Findings



AWARENESS OF DPP CONCEPT AS PART OF THE ECODESIGN LEGISLATION



INVOLVEMENT IN ANY COOPERATION ON THE UPCOMING DPP CONCEPT OR ANY OTHER PRODUCT-RELATED INFORMATION SHARING APPROACHES, TO ENHANCE THE CIRCULAR ECONOMY



The results show that there is a **relatively even distribution of respondents who are or have been involved in co-operations related to the DPP** concept or other product information sharing approaches aimed at improving the circular economy.

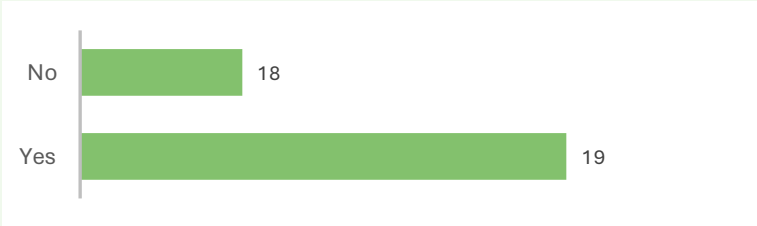
When asked to share the **kind of involvement**, the responses revealed an active and diverse **participation across multiple areas**:

Active Involvement in Multiple Initiatives

Respondents report being engaged in various collaborative efforts, indicating a proactive approach to the DPP and circular economy initiatives. This includes participation in technical committees, such as **CENTC 442**, which focuses on standards for building information modeling (BIM), and involvement in European standards development projects. These activities suggest that SMEs and other stakeholders are contributing to the shaping of DPP standards and practices at both the national and European levels.

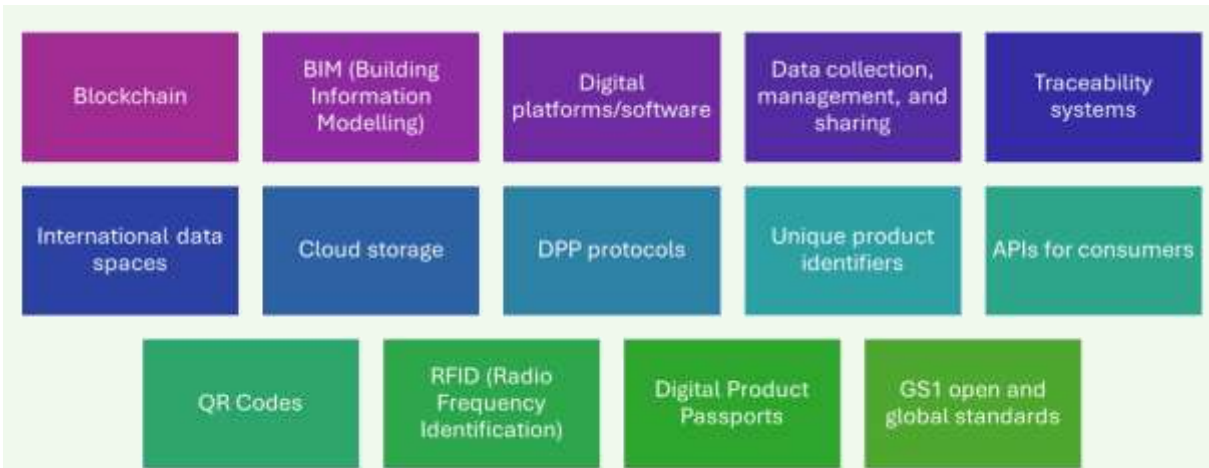
Knowledge Sharing and Collaboration	There is significant participation in knowledge-sharing initiatives and cooperation efforts aimed at harmonizing legislation and enhancing traceability within supply chains . These collaborations are crucial for ensuring that the DPP concept is implemented effectively across different industries and countries, promoting consistency and alignment with broader circular economy goals.
Project-Specific Engagement	Specific projects like CIRPASS are frequently mentioned, indicating that respondents are not only aware of, but also involved in key initiatives driving the development of the DPP.
Sector-Specific Applications	The application of the DPP in sectors such as construction, textile and footwear are particularly highlighted. This shows that the DPP is being approached from a multi-sectoral perspective, with tailored strategies being developed for different industries. However, the focus on certain sectors also suggests that there may be varying levels of engagement across different industries, which could influence the overall success and consistency of the DPP's application.

AWARENESS OF TOOLS/TECHNOLOGIES RELEVANT FOR THE SECTORS CONCERNING PRODUCT-RELATED INFORMATION SHARING



The replies indicate an **evenly balanced division** between respondents who are **aware of the relevant tools and technologies** for sharing product information in their sector and those who are not.

The main tools and technologies mentioned in the responses include:



The answers highlight the ongoing **efforts to integrate advanced technologies like blockchain** into the DPP framework, particularly in sectors with complex supply chains.

While these technologies offer **significant benefits** in terms of **security, transparency, and traceability**, their **high cost and the complexity of implementation present challenges**, especially for **SMEs**.

The **early stage of development** in some sectors and the need for **harmonization and standardization** are key factors that will determine the success of these initiatives.

Collaborative efforts at both the national and European levels, as well as **continued evaluation and testing of these technologies**, are crucial for the effective and widespread adoption of the DPP.

Key aspects identified

Blockchain Technology

High Cost and Novelty | Blockchain is recognized for its high cost and novelty but also for its potential benefits, particularly in enhancing data security, transparency, and traceability. The decentralized nature of blockchain makes it an attractive option for ensuring the integrity of information across the supply chain.

Sector-Specific Application | In the construction sector, blockchain is being used in conjunction with BIM models and objects, such as Digital Building Logbooks and Smart CE-marking. This indicates a growing interest in leveraging blockchain to improve traceability and accountability in complex industries. In the automotive industry there is the IMDS system for tracking all materials used in a vehicle’s production so that, at the end of life, the vehicle dismantlers can have a record of every part. This system may serve as a blueprint or inspiration for other products.

Current Efforts and Evaluations

Active Projects and Initiatives | Several projects and initiatives are underway to test and implement DPP-related technologies. For instance, in the fashion industry, technologies are being tested to help brands communicate their supply chains transparently. In the chemical sector, blockchain is being explored to provide transparency about product ingredients while safeguarding intellectual property.

International Data Spaces (IDS) | The decentralization of data through IDS connectors is highlighted as a promising approach for data security and privacy, flexibility, and reliability in DPP implementation.

Diverse Technological Approaches | A variety of tools and technologies are being evaluated, including digital platforms, traceability systems, cloud storage, and unique product identifiers (e.g., QR codes, RFID tags). This diversity reflects the different needs and capabilities of companies across sectors.

Challenges and Considerations

Investment and Complexity | The selection of tools and technologies is heavily influenced by factors such as the existing IT infrastructure, the complexity of the company's value chain, and the company's investment capacity. This suggests that while advanced technologies like blockchain are promising, their adoption may be limited by these practical considerations.

Early Stages of Development | Some sectors, like cosmetics, are still in the early stages of deploying these technologies. The text notes that many SMEs are not yet ready to implement such initiatives widely, indicating a need for further development and support.

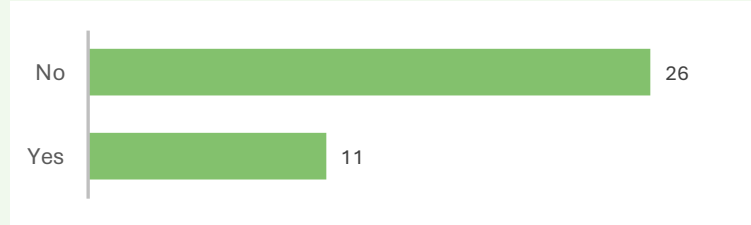
Importance of Standards and Collaboration

Harmonization and Interoperability | There is a strong focus on the need for DPP protocols that ensure compatibility and interoperability across different platforms and devices. This is crucial for the widespread adoption of the DPP and for ensuring that different industries and regions can effectively share and use the data.

Standards Development | The text underscores ongoing efforts to harmonize standards, which is essential for the successful implementation of DPPs across various industries.



AWARENESS OF INITIATIVES TO HELP SMEs WITH THE UPCOMING LEGISLATION ON DPP



Most responses indicate a **lack of awareness** about initiatives to help SMEs with the upcoming DPP legislation. However, a few responses do mention that there are some initiatives in place to assist SMEs, though these are less commonly reported.

Nevertheless, the **information provides light on the challenges and ongoing initiatives** related to the preparation of SMEs, for the upcoming sustainability reporting requirements under the DPP legislation.

While there are **emerging initiatives and broader digitalization incentives**, there is a **clear need for more focused support that addresses the specific financial and operational burdens** these businesses will face. In Portugal, industry associations, technology centres, and regional projects like **NERBA**, or **CITEVE's initiative - Têxtil de A a Z®** to support SMEs, play a crucial role in bridging this gap, but **further targeted initiatives are essential** to ensure that SMEs can successfully navigate the upcoming regulatory landscape.

Key Points

Early Stage of Initiatives	Key initiatives, such as the Leitprojekt Daten-Service-Ökosysteme, CIRPASS project, now in version CIRPASS 2.0 and activities by CNE/CENELEC committees, are still in their early stages. The specific requirements and delegated acts necessary for the DPP will only become clear by 2026 at the earliest. This creates uncertainty for SMEs as they prepare for compliance.
Financial Implications for SMEs	The impending DPP legislation will require significant investments in IT infrastructure (CAPEX) and operational expenses (OPEX) such as training. This will stretch the financial resources of SMEs, especially those in interior regions, which are often more constrained than their larger counterparts.
Support Gaps and Opportunities	Although there are no specific initiatives directly targeting SME support for the DPP legislation, there are broader programs under Horizon Europe and Portugal 2030 that aim to promote

digitalization among SMEs. These incentives could potentially be leveraged to assist with DPP implementation.

Industry associations, technology centers, and business organizations are beginning to prepare support measures, such as webinars, workshops, and training courses. However, there is a recognized need for more targeted initiatives specifically designed for SMEs, considering their unique challenges and needs compared to larger companies.

Awareness and Training Efforts

Various sectors, such as metalworking and textiles, are already mobilizing resources to help SMEs adapt to the new regulations. These efforts include information services, webinars, seminars, and partnerships with other entities. The textile sector is experiencing significant regulatory changes in sustainability and circularity, prompting early action.

The [Mittelstand-Digital Initiative](#) in Germany, for example, is focusing on new approaches within the textile sector to support SMEs, highlighting the importance of industry-specific responses.

[DEFI, la mode de France](#) is currently communicating not enough information about the DPP, as the elements available are still generic and do not specifically concern their sector. However, they are actively pursuing their work on traceability. In addition, every Wednesday, they share with their members relevant information on various topics, including traceability, associated technological solutions, and any important news relating to DPP or relevant innovations. As soon as a significant DPP update emerges, they will make sure to pass it on to our network.

Lack of Comprehensive Public Initiatives

Answers indicate an absence of public initiatives directly addressing the specific needs of SMEs in relation to DPP compliance. While some national and European information sessions have been conducted, the response from public authorities seems to be limited.



ROLE OF BUSINESS ORGANIZATIONS IN INFORMING AND SUPPORTING SMEs ON DPP



Data reveal key trends, proactive measures, and areas for improvement. The analysis is structured to highlight **best practices** and **gaps** identified from the results.

The results indicate that while there is a **strong commitment** from business organizations to inform and support SMEs in adapting to the DPP legislation, there are notable **gaps in preparedness** and **varying levels of engagement**.

Key best practices that emerged include:

Proactive educational initiatives that provide sector-specific, actionable information.

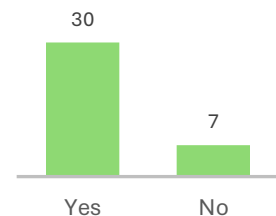
Sector-specific tools and consultancy services that address the unique needs of different industries.

Training and awareness campaigns that focus on inclusivity and practical solutions for SMEs.

However, the **lack of uniformity** in response and **reactive approaches** in some sectors present a risk of uneven compliance across the EU. To address these challenges, continued and coordinated efforts are needed to ensure that **all SMEs** are adequately supported as they transition to compliance with the DPP legislation.

ROLE OF BUSINESS ORGANIZATIONS IN INFORMING THEIR MEMBERS

Most organizations (30 out of 37) indicated that they are actively informing their members about the provisions under the DPP legislation and the broader Ecodesign Regulation. However, some associations (7 out of 34) are not yet engaged in any formal efforts.



KEY AREAS	EXAMPLES
Educational Webinars and Seminars	Several countries have adopted webinar series and roadshows to raise awareness about DPP Austria, Italy, and Portugal have launched sector-specific webinars, focusing on relevant topics such as data ecosystems and implementation strategies for DPP.
Sector-Specific Focus	Some business organizations are catering to the specific needs of their industries. Italy's focus on the textile sector highlights the need to address the industry's unique challenges in adapting to sustainability regulations. Similarly, Germany targets sectors like metalworking and footwear , ensuring that guidance is directly relevant to the businesses in those areas.
Creation of Knowledge Networks	Organizations in Austria and Italy have created support networks to enable SMEs to share best practices and knowledge . These networks provide businesses with a collaborative space to learn from each other, particularly focusing on SMEs that may have fewer resources to navigate complex legislative changes.
Research Program	In France , the Union des Industries Textiles (UIT) took part in a research program for the <i>Comité Stratégique de Filière Mode et Luxe</i> , financed by ADEME, on product traceability. The aim of this program was to study the traceability solutions available on the market to find the one best suited to the needs of the textile industry.

Gaps and Challenges

- **Lack of Uniformity** | While some organizations have comprehensive plans in place, others are still gathering information. Especially sectors that are not among the priorities of the European Commission's work program. Some organizations mentioned that they will inform gradually the companies in their sector based on the information they have on the implementation of the regulation, and they are waiting first delegated acts published for the other products.

This lack of uniformity may lead to **uneven preparedness** across the EU. For instance, some regions or sectors may face more challenges in meeting compliance deadlines than others.

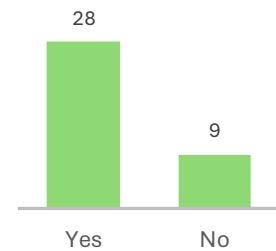
- **Waiting for Specific Guidance** | In countries like **Poland and Bulgaria**, business organizations are waiting for more concrete information and product-specific guidelines, particularly for industries like chemicals. This cautious approach may delay timely support to SMEs.

TAKEAWAYS

- **Proactive Educational Webinars** that are sector-specific help ensure that businesses receive tailored, actionable information.
- **Support Networks** allow for the exchange of knowledge and best practices, helping SMEs learn from one another.

ROLE OF BUSINESS ORGANIZATIONS IN SUPPORTING SMEs TO ADAPT TO DPP CHANGES

Most of the organizations **76%** (28 out of 37) indicated that they are actively supporting their members to adapt to the **upcoming DPP changes**. These organizations employ a variety of strategies to facilitate compliance, but there is a notable **variation in readiness** across different sectors and regions.



KEY AREAS	EXAMPLES
Development of Sector-Specific Tools and Platforms	<p>The Footwear Cluster (Portugal) is an example of proactive support, developing sector-specific tools for DPP compliance. This includes workshops, webinars, and demonstration actions designed to equip businesses with practical tools.</p> <p>The Italian Confederation of Craft Trades and Small- and Medium-Sized Enterprises (CNA) involvement in projects like REPASDO, in which MSMEs are able to technically and technologically approach tools for traceability and transparency. Other accompanying measures will be needed for other sectors involved in the legislation.</p> <p>The Union des Industries Textiles has supported the development of a traceability solution tailored to SMEs in the French textile industry, particularly in terms of cost, flexibility and interoperability. The French startup Textil'IA has commercialized this tool.</p>
Consultation and Evaluation Services	<p>NERBA-Business Association of the District of Bragança (Portugal) provides auto-evaluation and consultancy services to help SMEs assess their readiness for DPP. This hands-on support is particularly crucial for SMEs with limited internal resources.</p>

KEY AREAS	EXAMPLES
Training and Awareness Campaigns	<p>Confartigianato in Italy is supporting its members through continuous training and communication activities, ensuring that SMEs are kept informed and prepared for DPP implementation.</p> <p>EuroCommerce collaborates with GS1 to promote a decentralized and inclusive DPP that aligns with the needs of SMEs. Their approach focuses on making DPP accessible, even for smaller businesses with fewer resources.</p>

Gaps and Challenges

- **Reactive vs. Proactive Approaches** | While some organizations are proactively developing tools and platforms, others are taking a more reactive approach, waiting for further clarification of the DPP guidelines. For instance, the **European Chemical Industry Council (CEFIC)** is holding off on targeted support until more specific regulations are in place.
- **Varying Levels of Support** | The level of support varies significantly across sectors. Some industries, such as **footwear** and **ceramics**, are more advanced in their preparations, while others, particularly those awaiting product-specific guidelines, are less prepared. This disparity could lead to **uneven compliance and competitive-ness** across different sectors and regions.

TAKEAWAYS
<ul style="list-style-type: none"> → Development of Sector-Specific Tools (Footwear Cluster, Ceramic, and Crystal sectors) ensures that the unique challenges of each industry are addressed, making adaptation smoother. → Hands-On Consultancy Services provide SMEs with direct support in evaluating and improving their readiness for DPP implementation. → Collaborative Training Programs that focus on inclusivity and accessibility help SMEs that may have fewer resources to navigate the regulatory changes.



BENEFITS OF IMPROVING PRODUCT-RELATED INFORMATION SHARING AND AWARENESS OF BEST PRACTICES ACROSS INDUSTRIES



Regarding **improving product-related information sharing** and their **awareness of best practices** in this area, the responses reflect the potential advantages of enhanced information-sharing, particularly in terms of **transparency, traceability, sustainability, and competitive advantages** for sectors such as construction, leather, and fashion.

However, the challenges of **implementation costs** and the need for **standardization** across sectors must be addressed to fully realize these benefits. To fully leverage the benefits of enhanced information sharing, increased **cross-industry collaboration** and **standardization efforts** are crucial. This will help SMEs and larger companies alike to adapt to new sustainability regulations and ensure compliance with DPP requirements.

There is also a clear **gap in awareness** of best practices, with many organizations unfamiliar with effective approaches to product-related information sharing, 61% of respondents. The examples of **CE marking, QR codes**, and collaborative initiatives like **CIRPASS** provide valuable **best practices** that could be shared more widely across industries.

KEY BENEFITS OF IMPROVING PRODUCT-RELATED INFORMATION SHARING	EXAMPLES
<p>Transparency and Traceability Enhanced information sharing allows for better tracking of product origins, manufacturing processes, and environmental impacts. This not only promotes sustainability but also improves compliance and counterfeiting prevention.</p>	<p>The leather industry benefits from initiatives promoting traceability to emphasize leather's inherent sustainability. Providing detailed data on product materials and origins helps consumers understand and trust the sustainability of their purchases.</p> <p>The textile industry also emphasises the importance of data originating from all stages of the product's life cycle and being used for</p>

KEY BENEFITS OF IMPROVING PRODUCT-RELATED INFORMATION SHARING	EXAMPLES
	<p>various purposes at all these stages (design, manufacture, use, disposal). Greater transparency in the life cycle of products should enable more sustainable actions by consumers, industry and waste management and facilitate mandatory reporting¹⁶.</p> <p>For textile industry a better data sharing should improve product knowledge and boost innovation (recycling, durability). In a second phase, this will lead to an improvement in environmental and social impacts.</p>
<p>Sustainability and Circular Economy Product-related information sharing promotes circular economy practices by providing insights into product durability, repairability, and recyclability. This reduces raw material consumption and encourages more efficient use of resources.</p>	<p>In the construction sector, detailed product information helps to facilitate sustainability assessments and streamlines renovation processes by making it easier to identify sustainable materials.</p>
<p>Consumer Empowerment Provide consumers with detailed product information that enables them to make more informed purchasing decisions. This increased transparency drives demand for higher-quality and sustainable products, influencing market trends.</p>	<p>Sustainable fashion brands can differentiate themselves by offering transparency about product origins and sustainability, helping them compete with fast fashion and other less sustainable alternatives.</p>
<p>Competitive Advantage Enhanced product-related information sharing offers a competitive edge, especially for companies committed to eco-design and sustainable products. This creates new opportunities for differentiation in the marketplace.</p>	<p>The European construction sector can leverage detailed sustainability assessments to offer eco-friendly renovation solutions, gaining a competitive advantage in a growing market for green building practices</p>

16 Jansen, Maïke, Tobias Meisen, Christiane Plociennik, Holger Berg, André Pomp, Waldemar Windholz, Stop Guessing in the Dark: Identified Requirements for Digital Product Passport Systems, In: Systems 11, 123, July 30, 2023, <https://doi.org/10.3390/systems11030123>

[1] European Commission, 2022a, Proposal for a Regulation of the European Parliament and of the Council establishing a framework for the setting of ecodesign requirements for sustainable products and repealing Directive 2009/125/EC, 30.03.2022, COM (2022) 142 final, Article 2 (29), p. 53

[1] Götz Thomas / Adisorn, Thomas / Tholen, Lena, 2021, [Der Digitale Produktpass als Politik-Konzept](#), Wuppertal Report Nr. 20, 25.07.2023

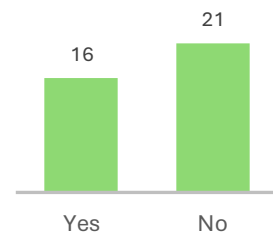
Challenges

- **Financial and Administrative Burden** | Several respondents expressed concerns about the costs and complexity of implementing DPPs, particularly for smaller companies. The **financial impact** of upgrading systems to track product information can be significant. There is also concern about competition from producers from outside the European Union.
- **Sector-Specific Limitations** | Some industries, particularly **servicing sectors**, may not benefit as much from enhanced information sharing, as they do not produce physical products that require detailed traceability.
- **Standardization** | There is a clear need for **simplified and standardized information-sharing practices** to ensure that SMEs and larger companies alike can comply without being overburdened. Respondents called for **harmonization of language, concepts, and practices** across sectors to reduce costs and improve efficiency.

TAKEAWAYS

- **Sustainability and traceability efforts** (leather and construction sectors) enhance both consumer trust and environmental responsibility.
- **Standardization and harmonization efforts** reduce complexity and administrative burden, making product-related information sharing more accessible to all companies, especially SMEs.

The survey results show that **57% of respondents** reported **no awareness of best practices** across industries for implementing enhanced product-related information sharing approaches. This gap highlights a lack of **knowledge-sharing** and **industry coordination** that could hinder the successful adoption of these practices.



AWARENESS BEST PRACTICES IDENTIFIED

CE Marking This well-established system ensures that products meet **EU safety, health, and environmental protection standards**. CE marking has been successfully implemented across various sectors and serves as a model for ensuring product-related compliance.

IMDS **The International Material Database System (IMDS)**¹⁷ is a global web-based repository for materials used in vehicles. This platform enables easy

¹⁷ <https://public.mdssystem.com/en/web/imds-public-pages>

	access to data for reporting, ensuring compliance with environmental regulations and helps identify materials for recycling.
QR Codes for Product Information	Some industries use QR codes to provide technical sheets or detailed product information. This approach enhances transparency and gives consumers immediate access to relevant product details
Collaborative Initiatives	<p>CIRPASS Funded by the European Commission, this collaborative initiative focuses on sectors like electronics, batteries, and textiles. CIRPASS prepares for the deployment of standards-based DPPs through pilot deployments and real-world use cases.</p> <p>Catena X, Gaya-X, Confinity-X Initiatives in the engineering sector involve investments in infrastructure and training to support detailed product information sharing. In the automotive sector there is the IMDS system that is used to track materials in the vehicle's production so that, at the end of life, the vehicle dismantlers can have a record of every material used in every part.</p>
Reparability	The Nutriscore has been in place for several years to inform consumers about the nutritional features of products (this display is voluntary); in the household appliances sector, there is a reparability index that informs consumers about the availability and price of spare parts; for automobiles, there are energy labels indicating CO2 emissions; in the real estate sector, an energy performance diagnosis is compulsory (its aim is to inform the future tenant or purchaser of the home's energy costs, and to recommend work to improve the home's performance).
Industry-Specific Standards	In the chemical sector , the Responsible Care Program has been in place for nearly 40 years, promoting the safe use of chemicals and the sharing of relevant information with stakeholders. This model emphasizes safety and sustainability in product-related information sharing.
Digitalization and Standardization	Digitalizing product information and using open product identifiers compliant with ISO standards helps streamline information sharing across borders. Standards for building modelling (e.g., EN ISO 23386:2020 and EN ISO 23387:2020) were also mentioned as examples

Gaps and Opportunities

- **Knowledge Gaps** | The **lack of awareness** among 61% of respondents regarding best practices across industries is concerning. It suggests that there is insufficient **knowledge-sharing** between sectors, preventing many businesses from benefiting from proven approaches to product-related information sharing.

- **Opportunities for Collaboration** | By fostering **cross-industry collaborations** and initiatives like **CIRPASS**, more industries could implement these best practices, resulting in broader adoption and increased **transparency and traceability**.

TAKEAWAYS

- **CE marking** and **QR code** use are proven methods of ensuring compliance and transparency across various sectors.
- **The International Material Database System (IMDS)** is a global web-based repository for materials used in vehicles. This platform enables easy access to data for reporting, ensuring compliance with environmental regulations, such as REACH. IMDS helps identify materials for recycling.
- **Collaborative initiatives** like CIRPASS demonstrate the value of piloting DPPs in diverse sectors, providing real-world examples for other industries to follow



ASSESSMENT OF SMEs' NEEDS IN RELATION TO THE UPCOMING DPP LEGISLATION

The assessment of SMEs' needs in relation to the DPP legislation highlights several critical areas where **targeted support** is needed to ensure effective compliance. While **62%** of respondents believe that SME needs have been assessed, the **38%** who felt otherwise underscore the need for **more comprehensive engagement**. Key challenges include **increased workload, digitalization gaps, cost concerns**, and the need for **training and gradual implementation**.

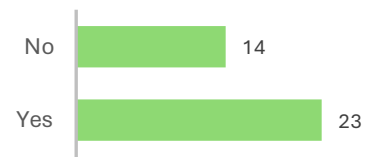
Key recommendations to address these challenges include:

- **Streamlined compliance processes** to reduce administrative burden and avoid duplication of efforts.
- **Investment in affordable digital solutions** to facilitate DPP integration.
- **Comprehensive training and awareness programs** to guide SMEs through the regulatory landscape.
- A **phased, flexible implementation approach** that allows SMEs to adapt without undue financial or operational strain.
- **Financial support mechanisms** to alleviate the cost burden on smaller businesses.

Addressing these needs will be crucial for ensuring the successful adoption and compliance with DPP legislation across the EU, particularly among SMEs.

ASSESSMENT OF SMEs' NEEDS

The survey results show that **23 (62%) of respondents** indicated that SME needs have been assessed in relation to the DPP legislation, while **14 (38%)** felt that these needs were **not adequately considered**. This mixed response indicates that while some countries and sectors are engaging with SMEs, there are **notable gaps** in how these assessments are being carried out.



KEY INSIGHTS

Majority Engagement | The fact that **65%** of respondents reported that **SME needs have been evaluated** suggests that in many regions, there has been **some level of stakeholder engagement**. However, the remaining **35%** who indicated **otherwise** reveals a **potential lack of uniformity** in how assessments are conducted across different regions and sectors.

Potential Risks | **The absence of a comprehensive screening process for SME needs** could result in legislation that does not fully accommodate the specific challenges faced by smaller businesses. This might lead to difficulties in compliance, **increased financial burdens**, or unintended barriers to the effective adoption of the DPP by SMEs.

Implications | **The differing perspectives suggest that awareness and involvement of SMEs in the legislative process** vary widely, which could hinder **consistent implementation** across the EU. Ensuring that all SMEs, regardless of size or industry, are engaged and aware of the legislative requirements is crucial to the successful implementation of the DPP.

TAKEAWAYS

- **Improved Engagement** | There is a need for more consistent and inclusive engagement with SMEs to ensure that their needs are thoroughly understood and addressed.
 - **Clear Communication** | Efforts should be made to improve communication between policymakers and SMEs to bridge the gaps in understanding of how the legislation will affect smaller businesses.
-

FINDINGS ON SMEs' NEEDS

The findings from the assessment highlight several **key areas of concern** for SMEs regarding the DPP legislation. These include increased **workload**, **digitalization challenges**, and **cost concerns**, among others.

PRIMARY CONCERNS RAISED

Workload and Complexity I Many SMEs are concerned about the increased workload and complexity of complying with DPP requirements. This includes the fear of duplicating efforts due to overlapping regulations such as the Detergents Regulation, which would increase the administrative burden on businesses.

Digitalization and IT Infrastructure Needs I The survey revealed that many SMEs are at varying levels of digital maturity, with some lacking the necessary IT infrastructure to manage DPP requirements. This highlights the need for investment in user-friendly, scalable IT solutions that facilitate data management and integration with existing systems.

Training and Awareness I SMEs expressed a need for substantial training and awareness programs to help them understand the technical specifications of the DPP and integrate it with their current business processes.

Flexibility and Phased Implementation I Respondents advocated for a phased and flexible approach to implementing DPP legislation, allowing SMEs to adapt without significant disruption to their operations.

Cost Concerns I The costs of compliance, both in terms of CAPEX and OPEX, remain a major concern for SMEs. Many businesses fear that the financial burden of implementing DPP will outweigh the benefits, particularly for smaller companies with limited budgets

TAKEAWAYS

- **Need for Streamlining I** SMEs are calling for streamlined processes that avoid redundant information requirements and simplify compliance.
 - **Investment in Digital Solutions I** There is a clear need for affordable, scalable digital tools that are accessible to smaller businesses and do not impose excessive financial burdens.
 - **Guidance and Training I** There is a need for widespread training initiatives to ensure that SMEs are aware of how to integrate DPP data systems and comply with the broader regulatory framework.
 - **Gradual Implementation I** A gradual, inclusive implementation would enable SMEs to adapt more smoothly, ensuring that smaller companies are not disproportionately affected by the changes.
 - **Support Mechanisms I** There is a strong demand for EU-wide support mechanisms, including grants and subsidies, to help SMEs cover these costs.
-



ROLE OF EUROPEAN UNION IN ORDER TO FACILITATE THE IMPLEMENTATION OF THE DPP FOR THE SMEs

The feedback on how the European Commission can facilitate the implementation of the DPP for SMEs highlights several **key areas of action**, centred around **financial support, simplified processes, and a gradual implementation of the DPP**, along with **clear communication, active involvement in the policy-making process and a reasonable schedule for the implementation of DPP**:

- **Financial Support** | A predominant concern among SMEs is the financial burden associated with the DPP and the broader process of digitization. Many responses underscore the need for the EC to provide financial assistance, such as grants or subsidies, to help SMEs cover these costs. Without such support, smaller businesses may struggle to comply with the new requirements.
- **Simplification and Transparency** | To make the DPP more accessible to SMEs, there is a strong call for the simplification of requirements. SMEs advocate for starting with minimal, manageable requirements and gradually increasing them over time. This phased approach would help SMEs adapt without overwhelming them. Additionally, ensuring transparency in the process and maintaining clear communication about the DPP's purpose and relevance is crucial for securing SME buy-in and participation.
- **Progressive Implementation** | A gradual implementation strategy is seen as essential for a smooth transition. The suggestion is to begin with basic, minimal requirements and provide SMEs with accessible and affordable interfaces for the DPP. This would allow SMEs to comply with the DPP without risking the exposure of trade secrets or facing an abrupt increase in regulatory demands.
- **Open Standards and Interoperability** | The development of open standards for DPP data is highlighted as a critical factor in ensuring interoperability and facilitating access for all stakeholders, particularly SMEs. Providing clear guidance on these standards is necessary to help SMEs understand and navigate the DPP requirements effectively.
- **Active Involvement of SMEs and Trade Organizations** | SMEs emphasize the importance of being actively involved in the definition and implementation of the DPP. Engaging trade organizations in this process is also seen as vital to ensuring that the policies are tailored to the needs and capabilities of smaller businesses.
- **“Test First, Legislate Later” Approach** | There is a recommendation for the European Commission to adopt a "test first, legislate later" approach. This means piloting the DPP before finalizing legislation, to ensure that the policies developed are effective and workable for SMEs. This approach would help identify potential challenges and allow for adjustments before broad implementation.
- **Clarification and Relevance** | The need for clear clarification on the purpose and relevance of the DPP is emphasized. SMEs require a solid understanding of why the DPP is important and how it will benefit their businesses, which will, in turn, encourage greater

engagement in the necessary changes. When implementing a strategy, it is essential to resolve all the problems related to definitions, legal contradictions, etc., before proposing to speed up the application of the DPP in any sector of the European economy.



ROLE OF NATIONAL GOVERNMENTS IN ORDER TO FACILITATE THE IMPLEMENTATION OF THE DPP FOR SMEs

Data reveal several **key areas: financial support, simplified processes, effective communication, and strong government collaboration with the SME community:**

- **Financial Support** | A major concern for SMEs is the cost of implementing the DPP. Many responses suggest that financial assistance, such as subsidies, grants, or tax incentives, is essential to help SMEs manage these expenses. Without this support, the financial burden may hinder the adoption of the DPP by smaller enterprises.
- **Training and Capacity Building** | SMEs recognize the importance of understanding the DPP's requirements and processes. To address this, there is a strong demand for government-sponsored training programs and capacity-building initiatives. These would equip SMEs with the necessary knowledge and skills to effectively implement the DPP.
- **Simplification of Implementation** | Given their limited resources; SMEs are concerned about the potential administrative burden of the DPP. Simplifying the process is seen as crucial to ensure that SMEs can comply with the DPP without being overwhelmed by paperwork or complex procedures.
- **Transparent Communication** | Clear and transparent communication from the government is essential. SMEs need to understand the purpose and requirements of the DPP to engage fully in its implementation. This includes providing detailed guidance and updates on the DPP's development and its impact on businesses.
- **Technical Advisory Committees** | The creation of technical advisory committees is recommended to ensure that DPP-related policies are developed with SMEs in mind. These committees would help tailor regulations to the specific needs and capabilities of smaller businesses, making the DPP more accessible and feasible for them.
- **Incentives and Preferential Financing** | In addition to direct financial support, the introduction of incentives like tax exemptions, subsidies, or preferential financing options could encourage SMEs to adopt the DPP. These measures would help mitigate the costs and make the transition more attractive.
- **Collaboration with SMEs and Associations** | Finally, there is a strong emphasis on the need for ongoing cooperation between the national government and SMEs, as well as their representative associations. This collaboration is seen as vital to ensure that the DPP is implemented in a way that considers the realities and challenges faced by smaller businesses. National government could set up working groups with SMEs in each trade

federation, so that they can disseminate best practices. It is important to have pathfinders testing tools, especially for production companies has been mentioned.

→ **Creation of a national helpdesk to answer questions from SMEs.**

6. Sectorial Focus Groups



On October 17, 2024, three Focus Groups were held in Porto, bringing together representatives from key **strategic sectors such as Textiles and Apparel, Leather and Footwear, Batteries, Electronics, Metalworking, Ceramics and Glass, Construction, and Automotive**. The main objective was to assess sector industry readiness, identified barriers, and support needs for the successful implementation of the DPP.

The discussions included industry representatives, technical experts, and specific sectoral clusters, moderated by the CISAS¹⁸ Research Center, Susana Campos, from the Polytechnic Institute of Viana do Castelo.

The interview script was based on **7 types of questions**:

Work to raise awareness of the Digital Product Passport among companies in the sector

Perception of the companies' knowledge of the DPP and the regulation (Ecodesign Regulation for Sustainable Products)

Involvement in projects directly related to the adoption of the Digital Product Passport

Knowledge of relevant tools and technologies to support its implementation

Benefits for companies in the sector

Mechanisms that the EC and public entities can implement to help with the adoption of DPP

Challenges for SMEs in adopting DPP

¹⁸ Center for Research and Development in Agro-food Systems and Sustainability

6.1. Focus group 1 | Textile, Footwear and Leather

Participants

APIC | Portuguese Association of Tanning Industries

APICCAPS | Portuguese Footwear, Components, Leather Goods, and Substitutes Industry Association

CITEVE | Technological Center for Textile and Clothing

CTCP | Technological Center for the Portuguese Footwear Industry

CTIC | Technological Center for the Leather Industries

MAIN FINDINGS

Competitiveness of European Companies | European legislation imposes strict requirements on local companies competing with less regulated external markets, such as India, China, and Brazil.

Companies' Burdens | The implementation of the DPP will require significant investment in digitalisation, something many companies, especially SMEs, cannot afford.

Knowledge and Resources | Companies need support, training for their HR, digitalisation and, most importantly, the harmonization and universality of rules.

Issues with traceability due to varied standards across countries and sectors.

Data, Security and Certification | How will the information be stored, and who will manage it?

Assessing durability is one of the DPP issues | It depends on the products and the consumer themselves. Post-consumption is a problem.

Standardisation of Rules | Lack of standardisation in traceability between European and international markets, leading to uneven competitiveness. There must be a standardized European traceability mechanism at European level.

Challenges of Business Interoperability | More than 96% of raw materials come from outside Europe; GDPR needs to be safeguarded; Culturally, they are different countries with different values. The questions raised were: *Why should I sell to Europe with so many demands?* This way, Europe will lose competitiveness. Also to note that Interoperability is lost inside companies whenever there are intermediate products.

Supplier procedures/regulations | Difficult to impose the same procedures/regulations on suppliers based in geographical regions outside Europe.

Anti-deforestation regulation will have a huge impact on the footwear sector, predicting that this sector may also lose competitiveness, due to the entry into force of this Regulation.

EXAMPLES OF SECTORAL INITIATIVES

[be@t project](#) | Circularity and global logistics initiative already in the pilot testing phase.

[TraceLeather](#) | Within the scope of the [RARISS Project](#) (Autochthonous Breeds, Traceability, Innovation and Sustainable Solutions), the TraceLeather platform is a coding tool and information system, which allows, from now on, to ensure the traceability of leather used in the footwear industry.

[Green Pact](#) | The goal of the Portuguese shoes green pact is to inspire and support footwear companies and the entire value chain to prioritize a circular economy and reduce the environmental impact of the sector.

[Bioshoes4all Project](#) | This project aims to guarantee a resilient national production base for positioning in foreign markets where innovation, differentiation, quick and effective response, service, product quality, training and promotion are competitive arguments for overcoming the competition.

[Projecto Rfive](#) | The project transforms end-of-life clothing and leftovers into new fibres, which in turn become knitwear with added value to produce new clothes, responding to the challenge of the circular economy.

[GREEN SHOES 4.0](#) | Is part of the ambitious vision of the Footwear and

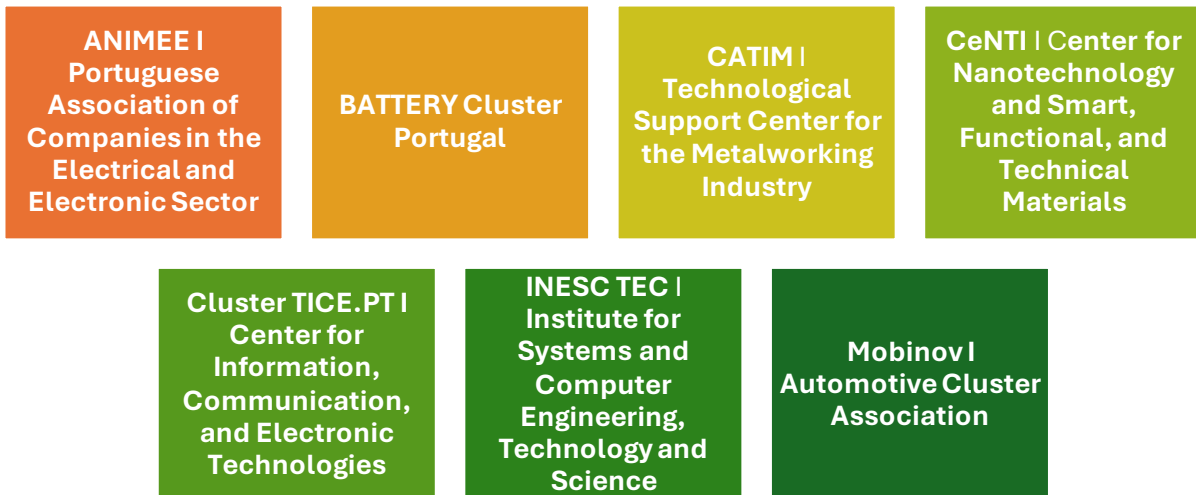
Fashion Cluster, which aims to establish our country as a great world reference for consumers and industries in these sectors, through differentiation, creativity, content and value, boosting Portuguese exports based on a strong, sustainable and globally competitive national production base, based on knowledge.

[STV Go Digital](#) (Start date: 01 July 2020 End date: 31 March 2023) | The mobilizing project STV Go Digital – Digitalization of the STV value chain, was a structuring project of the Textile Cluster: Technology and Fashion, which aimed to encompass a set of R&D initiatives with the involvement of companies in the Textile and Clothing sector, and other complementary sectors that enhanced the adoption and transition to the new paradigm of Industry 4.0.

[CIRPASS](#) | The CIRPASS project came to an end in March 2024. CIRPASS prepared the ground for the gradual piloting and deployment of the Digital Product Passports and developed roadmaps for prototypes in three value chains: electronics, batteries and textiles. In Portugal, GS1 is one of the partners involved in the initiative.

6.2. Focus group 2 | Electronics, Batteries, Metallurgy, Automotive, ICT

Participants



MAIN FINDINGS

TRACEABILITY I Some large and certified companies have already started implementing traceability solutions, but there is a lack of coordination between sectors. Lack of primary data, standardisation and simplification of the data collection process, training, data confidentiality; high testing costs.

Data Collection Difficulty I Non-European suppliers are unable to provide detailed information essential for traceability.

Data Validation and Verification I It is unclear who will be responsible for validating the data in the DPP and ensuring its accuracy.

Interoperability I There is a European repository of information through blockchain, but there is still no clarity on interoperability.

Data Integration I There is a lack of integration at the system level, and these systems are not integrated at the IT level. Need for standardization and simplification in data collection.

Technologies I It is necessary to ensure that there is sufficiently mature technology to implement DPP and track the entire value chain. This is an upstream problem that can be common in several sectors.

Data Transparency, Accuracy and Trust: Skill Shortage I Namely IT experts. While some sectors do not consider a skill shortage a significant concern, to other sectors it can be a big challenge.

Lack of a European Certification Entity to validate data.

EXAMPLES OF SECTORAL INITIATIVES

Battery Global Alliance | Creation of a [battery passport](#) to ensure the traceability and sustainability of the battery value chain.

Circular Project | A solution that allows companies to track their value chains and improve their performance in ESG (Environmental, Social, and Governance).

Circularise | Boost sustainability and compliance throughout your supply chain with Circularise's advanced traceability platform. It simplifies data collection and sharing, helping your company meet the

latest compliance regulations and product sustainability benchmarks.

Catena-X | A German initiative to establish a digital ecosystem for the automotive industry.

CIRCULATOR | Circolor's material traceability solution plays a key role in verifying the circularity of batteries. They track the entire lifecycle, from material sourcing to recycling, which means manufacturers can reliably demonstrate the origins of raw materials and recycled materials.

6.3. Focus group 3 | Construction and Ceramics

Participants

APICER | Portuguese Association of Ceramic and Glass Industries

CTCVI | Technological Center for Ceramics and Glass

Sustainable Habitat Cluster

MAIN FINDINGS

Alignment | Need to align DPP information with others reports that companies already produce.

Lack of definition of data criteria | Clarity/ transparency on data. Information should be verifiable.

SME Capacity Building I Small companies will struggle to adapt to the digital and financial demands of the DPP.

Data security and credibility I Companies fear that sharing information will affect their competitiveness.

Database management and Interoperability I What is the model that Europe will implement for database management and interoperability? Difficulties in the definition of a timeline to update information/ data.

EXAMPLES OF SECTORAL INITIATIVES

[Inov Ecoceramics Project](#) |

Collaboration between various entities to promote awareness of the DPP in the ceramics and glass sector. An integrated, cross-cutting proposal for the Ceramics and Glass sectors, geared towards their critical competitiveness factors and aimed at improving their international positioning.

Focus on four central thematic areas – energy sustainability, circular economy and industrial symbioses, digital transition and capacity building.

[Grow Circular Project](#) | Project to promote circular economy across different industrial sectors.

[UNE](#) | As an example, the Spanish Association for Standardisation, UNE, contributes to improving the quality and competitiveness of companies, their products and services through the development of technical standards. In this way, it helps organisations to generate one of the most sought-after values in today's economy: trust.

6.4. Focus Groups Conclusions

Despite the differences in the represented sectors, there is a **common concern regarding companies' capacity to adapt to the DPP requirements**, particularly in terms of the **standardisation of traceability** criteria, the **reliability of data**, the **interoperability of tools and platforms**, and the **costs and challenges of digitalisation**. There is a consensus that SMEs will face difficulties and will need **technical support, funding** and a **gradual implementation**.

Without these conditions, the DPP risks increasing the regulatory burden without achieving the expected benefits for sustainability and traceability of value chains in Europe.

UNEQUAL COMPETITIVENESS AND REGULATION

A recurring concern across all groups was the **difficult European companies face in competing with less regulated international markets**. EU environmental and traceability regulations are

stricter, placing local companies in a disadvantageous position compared to those in countries like India, China, and Brazil.

- **Textile and Footwear Sector I** Clearly expressed concern that the EU will penalise their companies by imposing strict rules, while products from outside Europe do not face the same demands. The lack of global standardisation and traceability imposed on European companies could weaken their global competitiveness.
- **Automotive and Electronics Sector I** Shared similar concerns, particularly regarding the validation of data from suppliers outside Europe, such as China, and the uncertainty about who will be responsible for the monitoring and validation of this information. For batteries, the DPP implementation requirements, starting in 2027 is seen as a challenge in terms of global compliance.
- **Construction, Ceramics and Glass Sector I** Lack standardisation as a critical issue, particularly with the fragmentation of the value chains, Construction, being a sector highly dependent on international suppliers, suffers even more from the lack of harmonisation in regulations and processes.

TRACEABILITY AND INTEROPERABILITY CHALLENGES

The implementation of the DPP depends on companies' capacity to track and report information throughout the value chain, due to the lack of interoperability of platforms and the diversity of systems used.

- **Textile and Footwear Sector I** Traceability is seen as a challenge due to the diversity of processes within the value chain. Data is not uniform between countries. Additionally, there is a technological overload for companies that need to invest in advanced tools, such as blockchain, to ensure traceability.
- **Automotive and Electronics Sector I** Interoperability is one of the main concerns, as the data collected needs to be integrated into technological platforms that are still not fully developed. The lack of a centralised, efficient repository and data validation is seen as a threat to the success of the DPP.
- **Construction, Ceramics and Glass Sector I** Interoperability challenge is also present, with great concern about the fragmentation of data and the lack of clarity about how to collect and integrate information from different sources and sectors. Tools like BIM are seen as possible solutions, but significant effort is needed to harmonise the data collected from international suppliers.

PHASED IMPLEMENTATION AND SUPPORT FOR SMEs

Need for a gradual implementation of the DPP and technical and financial support to help SMEs adapt to the requirements.

- **Textile and Footwear Sector I** Phased implementation is a big desire. SMEs in the textile and footwear sector are seen as the most vulnerable, given the high investment cost required in

technologies such as digital metrics and specific traceability tools. It's crucial that EU provide both technical and financial support to help smaller companies comply with the DPP requirements

- **Automotive and Electronics Sector I** In the automotive and electronics sector, SMEs face similar difficulties. The lack of internal capacity to manage and interpret the data collected is one of the biggest barriers. Using the test bed network was suggested to help validate data efficiently without burdening smaller companies.
- **Construction, Ceramics and Glass Sector |** In the construction sector, the lack of digital maturity among SMEs is seen as a major obstacle. To overcome this problem, greater government support and the creation of platforms that can be easily integrated.

7. References

- www.un.org/sustainabledevelopment/development-agenda/
- European Commission (2019), Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions - The European Green Deal, COM (2019) 640 final, Brussels, December 11
- European Commission (2020), Communication from the Commission to the European Parliament, The European Council, the Council, the European Economic and Social Committee, and the Committees of the Regions - A New Circular Economy Action Plan for a Cleaner and More Competitive Europe, COM (2020) 98 final, Brussels, March 11
- European Commission (2022), Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee, and the Committees of the Regions - On making sustainable products the norm, COM (2022) 140 final, Brussels, March 30
- European Commission (2022), Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee, and the Committees of the Regions - EU Strategy for Sustainable and Circular Textiles, COM (2022) 141 final, Brussels, March 30
- European Commission (2022), Proposal for a Regulation laying down harmonized conditions for the marketing of construction products, amending Regulation (EU) 2019/1020 and repealing Regulation (EU) 305/2011, COM (2022) 144 final, Brussels, March 30
- European Commission (2022), Proposal for a Regulation of the European Parliament and of the Council on Packaging and Packaging Waste, amending Regulation (EU) 2019/1020 and Directive (EU) 2019/904, and repealing Directive 94/62/EC, COM (2022) 677 final, Brussels, November 30
- European Commission (2023), Proposal for a Directive of the European Parliament and of the Council on substantiation and communication of explicit environmental claims (Green Claims Directive), COM/2023/166 final, Brussels, March 22
- European Commission (2023), Proposal for a Directive of the European Parliament and of the Council amending Directive 2008/98/EC on waste, COM (2023) 420 final, Brussels, July 5

- European Commission (2024), Regulation (EU) 2024/1781 of the European Parliament and of the Council, of 13 June 2024, establishing a framework for the setting of Ecodesign requirements for sustainable products, amending Directive (EU) 2020/1828 and Regulation (EU) 2023/1542 and repealing Directive 2009/125/EC
- European Commission (2022), Communication from the Commission Ecodesign and Energy Labelling Working Plan 2022-2024 2022/C 182/01, Official Journal of the European Union, May 4
- European Commission (2024), Political Guidelines for the next European Commission 2024–2029, Ursula von der Leyen, Candidate for the European Commission President, Strasbourg, 18 July 2024
- European Commission (2024), Ecodesign for Sustainable products Regulation (ESPR), Frequently Asked Questions (FAQ), Brussels, September 2024
- CIRPASS, 2023. CIRPASS – Digital Product Passport. URL <https://cirpassproject.eu/>

8. Annexes

- **Annex A** - SME Envoy Network| Digital Product Passport | Portugal and Sweden project| SME Envoy Survey
- **Annex B** -SME Envoy Network| Digital Product Passport | Portugal and Sweden project| Business Associations Survey

