# SME SBS Study

## Digital Product Passport: requirements and recommendations from PPE, Textile, Textile Care and Medical Devices SMEs

2024


Small Business Standards (SBS) is the association representing and defending Small and Medium-sized Enterprises (SMEs) interests in the standardisation system at the European and international levels. Its 22 members are national and European sectoral and interprofessional associations representing around 22,5 million SMEs in Europe.

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# Executive Summary

The Digital Product Passport (DPP) is an important element of the European Union's Sustainable Product Initiative and the Ecodesign for Sustainable Products Regulation, collecting information about the product and its components to facilitate better information flows across the supply chain. It doesn't only aim at tracking material efficiency, but also at facilitating traceability during the lifecycle of the product and beyond.

This study explores the regulatory frameworks, requirements, and concerns surrounding this initiative, particularly from the perspective of small and medium-sized enterprises (SMEs) operating in the textile, textile care, personal protective equipment (PPE), and medical device sectors.

Conducted by Small Business Standards in collaboration with SME Safety and Deutscher Textilreinigungs-Verband (DTV), the study provides a comprehensive overview of the EU legislative framework, a detailed explanation of the DPP and its provisional requirements, an in-depth analysis of survey responses from SMEs in these sectors, and relevant recommendations for policymakers. Insights collected from experts and industry representatives have highlighted the specific data requirements within their sectors while underscoring the challenges and overwhelming obstacles SMEs may encounter if the mandatory implementation of the DPP or a similar infrastructure is introduced beyond the general textiles.

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# 1 Introduction

Conducted over the course of 2024 and published in December, this study explores the regulatory frameworks, requirements and concerns surrounding this initiative, particularly from the perspective of small and medium-sized enterprises (SMEs) operating specifically in the textile, textile care, personal protective equipment (PPE) and medical device sectors. Drawing from previous research, including the CIRPASS EU-funded project, and a targeted survey, this study investigates how the digital product passport could impact PPE-, textile- and medical device-related SMEs, and what would be their specific requirements to benefit from a potential implementation in the textile value chain.

Specifically, the European Digital Product Passport (DPP) is an initiative introduced under the Ecodesign for Sustainable Products Regulation (ESPR), within the framework of the European Union's strategy to foster sustainable growth and promoting the circular economy. This digital tool, that will be implemented progressively across multiple sectors, is designed to collect and provide detailed information about the lifecycle, composition, and environmental impact of various products and to thereby enable better decision-making by businesses and consumers. By centralizing product data in a standardized and accessible digital format, the DPP seeks to enhance transparency, reduce waste and foster responsible production and consumption across the EU.

The survey proposed within this study aimed to:

- observe and understand the DPP mechanism in the context of the identified sectors
- identify what information are available and useful, including the analysis of challenges and opportunities in the DPP implementation

Moreover, the study gathered valuable insights from both experts and industry representatives on several critical aspects related to the DPP. These included the identification of relevant data for SMEs, the availability of information throughout the supply chain, and considerations for the transition phase. It also addressed issues such as identification and labelling, processes for reprocessing and repair, and the costs associated with implementing the DPP. Consequently, the study offered specific recommendations for policymakers on the upcoming implementation steps of this initiative.

Overall, the integration of the DPP into the investigated sectors faces significant hurdles, including regulatory overlaps, cost implications, infrastructure deficiencies and data gaps. These issues are particularly acute for SMEs, underlining the need for clearer guidance, accessible standards and supportive financial measures linked to the digitalisation of processes.

SMEs active in the PPE, textile care and medical device sectors that need to comply with their sectoral regulatory frameworks and standards stand to positively benefit from their exclusion from the mandatory requirement of providing the DPP for their products.

## 1.1 The European Digital Product Passport, context and definition

The **European Digital Product Passport** (DPP) is an initiative introduced under the Ecodesign for Sustainable Products Regulation (ESPR)[1], within the framework of the European Union's strategy to foster sustainable growth and promoting a circular economy. This digital tool is designed to collect and provide detailed information about the lifecycle, composition, and environmental impact of various products, enabling better decision-making by businesses, consumers, and regulatory authorities. By centralizing product data in a standardized and accessible digital format, the DPP seeks to enhance transparency, reduce waste, and foster responsible production and consumption across the EU.

A key objective of the DPP is to support the EU's Green Deal and Circular Economy Action Plan[2] by ensuring that products are more durable, repairable and recyclable, which is to be facilitated by storing and sharing data on materials, supply chain processes and end-of-life options for products. This data is expected to play a critical role in assessing **compliance with sustainability regulations**, verifying product claims, and promoting innovation in sustainable design. Furthermore, the DPP aligns with the EU's goal of achieving carbon neutrality by 2050[3], encouraging industries to adopt greener practices through greater accountability and informed decision-making.

The implementation of the DPP will involve **various stakeholders across the value chains**, including manufacturers, retailers, and consumers. Manufacturers are expected to provide accurate and comprehensive **product information**, while retailers, service providers and distributors will integrate this data into their operations to guide customers in making sustainable choices. For consumers, the DPP serves as a valuable resource to understand the **environmental impact** of their purchases and to support informed decisions that align with personal and societal

[1] https://eur-lex.europa.eu/eli/reg/2024/1781/oj
[2] https://environment.ec.europa.eu/strategy/circular-economy-action-plan_en
[3] https://climate.ec.europa.eu/eu-action/climate-strategies-targets/2050-long-term-strategy_en

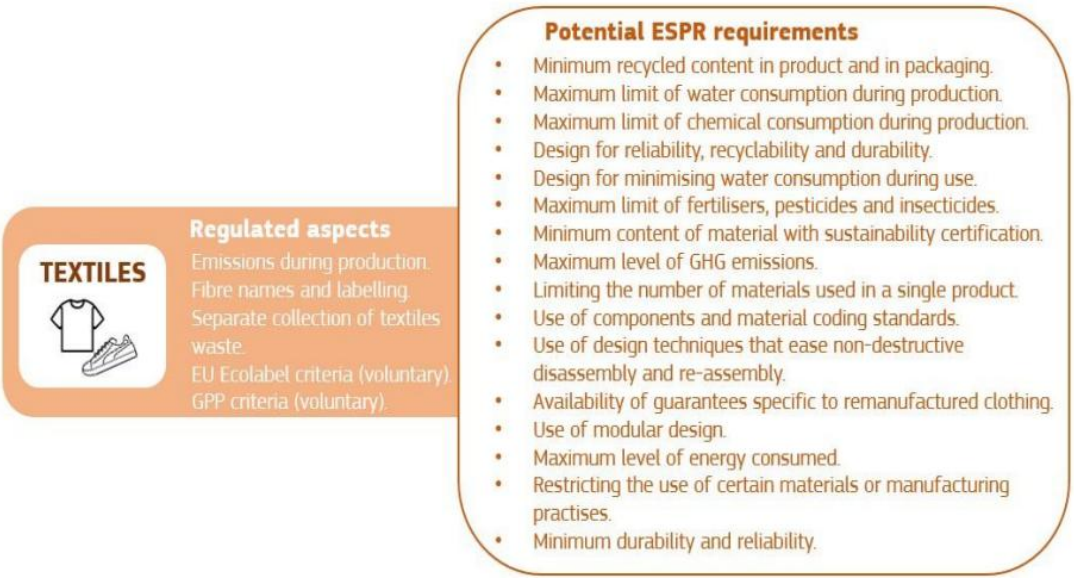
sustainability goals[4]. Additionally, the DPP could support the compliance with **EU standards and sectoral regulations**, including aligning the approach to sustainability across member states.

While the DPP offers numerous advantages, its rollout also presents challenges. Creating a standardized framework for diverse industries, actors within the supply chains and products requires **significant collaboration and technological investment**. In addition, ensuring the security and privacy of the data collected, particularly in competitive markets, will be critical to gaining trust among businesses and consumers. Despite these challenges, the DPP represents a significant step toward realizing a more sustainable and circular European economy, integrating environmental priorities with technological advancements.

For the purposes of this study, the **DPP is generally defined as**: "*the combination of an identifier, the granularity of which can vary throughout the lifecycle (from a batch to a single product), and data characterising the product, processes and stakeholders, collected and used by all the stakeholders involved in the circularity process*.[5]"

The potential ESPR requirements for the textile category were generally identified in the preliminary study by the European Commission's Joint Research Centre (JRC) on new product priorities[6] (see **Figure 1**).

**Figure 1**. Potential ESPR requirements identified by the JRC.




[4] https://cirpassproject.eu/dpp-in-a-nutshell/
[5] https://www.europarl.europa.eu/RegData/etudes/STUD/2024/757808/EPRS_STU(2024)757808_EN.pdf
[6] https://publications.jrc.ec.europa.eu/repository/handle/JRC138903

In terms of design for **durability** (reliability, repairability, reusability, upgradeability) or modular design, the DPP could include[7]:

- Resistance to stress or ageing mechanisms
- Minimum durability of function (repellence to oil, water and stain, colour fastness, dimensional changes)
- Introduction to repairability or scoring index
- Availability of repair information and maintenance instructions to independent operators and/or end users
- Spare part availability and delivery time
- Disassembly generally or related to tools, fasteners, working environment and skill level
- Number of materials and components used
- Modularity, transformability, detachable/transformable elements

In terms of design for **recyclability**, it could include:

- Ability to easily separate the product into different materials
- Choice of materials and restrictions on substances
- Conditions for access to the product data relevant to recycling including dismantling information

## 1.2 The relevant EU regulatory framework

The ESPR, effective from 18 July 2024, serves as the foundation of the European Commission's strategy for promoting environmentally sustainable and circular products. A key feature of the ESPR is the introduction of the DPP.

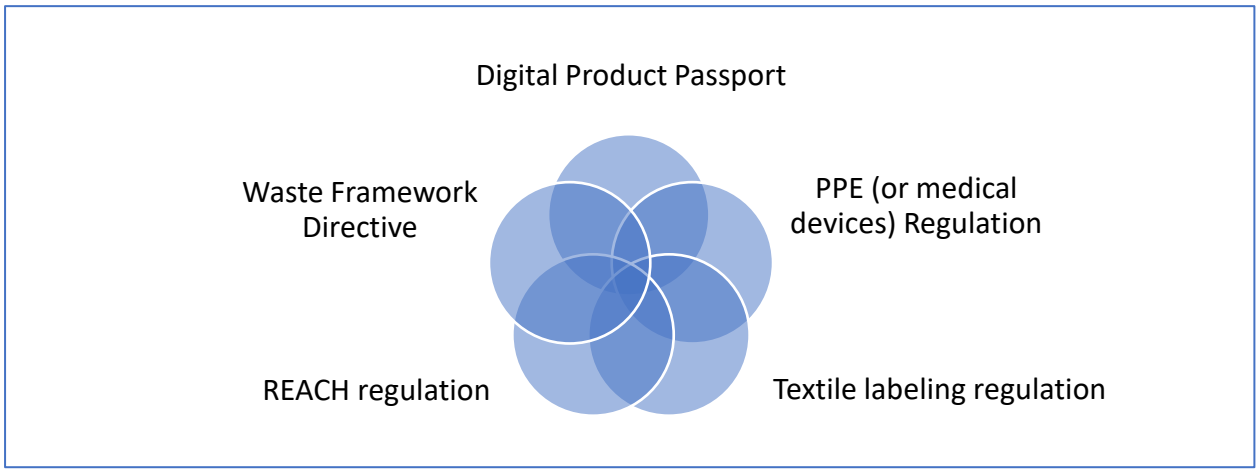
In the PPE, textile care and medical devices sectors, other **regulations** that will continue to apply include (see **Figure 2**):

- The Regulation on the registration, evaluation, authorisation and restriction of chemicals (REACH)[8]. It is the main EU law to protect human health and the environment from the risks that can be posed by chemicals
- The Textile Labelling and Fiber Composition Regulation[9]. It provides that textile products shall be labelled or marked to give an indication of their fibre composition whenever they are made available on the market

[7] https://cirpassproject.eu/wp-content/uploads/2024/04/CIRPASS_D2.2_DPP_UseCases_Report_v2.0.pdf
[8] https://environment.ec.europa.eu/topics/chemicals/reach-regulation_en
[9] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32011R1007#

- The EU Waste Framework Directive[10]. It was amended in 2023 for a stronger focus on wasted textile and imposes additional requirements for Member States from 2025 in the separate collection of textiles
- The Regulation (EU) 2017/745 of the European Parliament and of the Council of 5 April 2017 on medical devices[11]
- The Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC[12]

**Figure 2**. Examples of interlinked regulations and requirements for PPE, textile care and medical devices.




More specifically, laundries are affected by REACH regulations because they often handle chemicals to wash or impregnate textiles while for PPE and medical textiles this is particularly related with PFAS. The regulation aims to control and minimize the use of such harmful substances, impacting laundry operations.

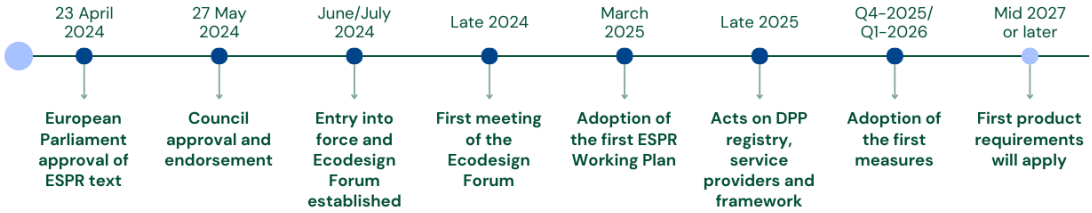
Currently, **PPE and medical devices do not fall within the scope of the DPP**. However, it is possible that they will be in the future, or that a company with a large proportion of its products requiring DPP (e.g., workwear, hotel linen) may wish to harmonise its internal practices to have a single process. In both cases, requirements from the companies in these sectors and **their specific challenges and concerns should be carefully explored**.

[10] https://environment.ec.europa.eu/topics/waste-and-recycling/waste-framework-directive_en
[11] https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=celex%3A32017R0745
[12] https://eur-lex.europa.eu/eli/reg/2016/425/oj

## 1.3 Implementation and Data Requirements

The ESPR has entered into force in July 2024, after the final text was approved by both the European Parliament and the Council (see **Figure 3**). In 2024, the **Ecodesign Forum** was also established and saw its first meeting. In the first half of 2025, the European Commission will adopt the first ESPR Working Plan for the products will be prioritised over the coming years. Then, the development of product rules will start, based on inclusive planning, detailed impact assessments and regular stakeholder consultation within a dedicated Ecodesign Forum[13].

**Figure 3**. Provisional timeline for the implementation of the ESPR.




Specifically, under the Working Plan, the Commission will propose specific requirements for product groups or horizontal measures through **Delegated Acts**, after consulting the relevant stakeholders. To support these efforts, the European Commission had initiated a preparatory study conducted by its JRC. Following the conclusion of this study, work on a Delegated Act is expected to start, covering aspects related to the DPP for textiles. While the exact timeline for the Delegated Act remains uncertain, its adoption could occur from 2026[14]. The specific date of entry into force will be outlined in the Delegated Act itself and will account for the time businesses need to prepare for compliance with ecodesign requirements, including those related to the DPP.

Regarding the future DPP data requirements, the specifics for each product group will be further defined in the relevant delegated acts. In general, **information requirements** are described in **Article 7 and ANNEX III of the ESPR**, which specify that this information shall or may include[15]:

- the unique product identifier at the level indicated in the applicable delegated act

[13] https://commission.europa.eu/energy-climate-change-environment/standards-tools-and-labels/products-labelling-rules-and-requirements/ecodesign-sustainable-products-regulation_en
[14] https://cirpassproject.eu/wp-content/uploads/2024/04/CIRPASS_D2.2_DPP_UseCases_Report_v2.0.pdf
[15] https://cirpassproject.eu/wp-content/uploads/2023/03/ESPR-short-summary-Final.pdf

- the Global Trade Identification Number as provided for in standard ISO/IEC 15459-6 or equivalent of products or their parts
- relevant commodity codes, such as a TARIC code
- compliance documentation, such as the declaration of conformity, technical documentation, conformity certificates or voluntary EU Ecolabels
- requirements related to substances of concern
- user manuals, instructions, warnings or safety information
- information related to the manufacturer
- unique operator identifiers other than that of the manufacturer, in particular responsible for product certification tasks
- unique facility identifiers and information related to the importer
- information on the performance of the product in relation to the product parameters
- information for consumers and other end-users on how to install, use, maintain and repair
- information for treatment facilities on disassembly, recycling, or disposal at end-of-life

## 1.4 European Commission's Standardisation Request and supporting standards

The technical implementation of the DPP and its management of data significantly relies on a digital infrastructure that allows **interoperability, security and privacy**. This will be ensured by underlying standards covering different areas that would need to be harmonised according to the requirement of the ESPR regulation. Through a standardisation request, the European Commission can mandate for the design and adoption of European standards or European standardisation deliverables in support of EU's legislation and policies.

In particular, the standardisation request for the DPP is issued to European Standardisation Organisations, which are requested to work on eight areas of standardization. The list of European and harmonised standards under the **DPP standardisation request** include:

- unique identifiers
- data carriers
- links between physical product and digital representation, look-up mechanism
- access rights management
- interoperability (technical, semantic, organisation), including data exchange protocols and formats and data processing (introduction, modification, update)
- data storage and data persistence
- data authentication, reliability and integrity
- data security and privacy

Finally, the standards supporting the DPP has been required to ensure that the implementation of the DPP-System should be state of the art and technology agnostic[16].

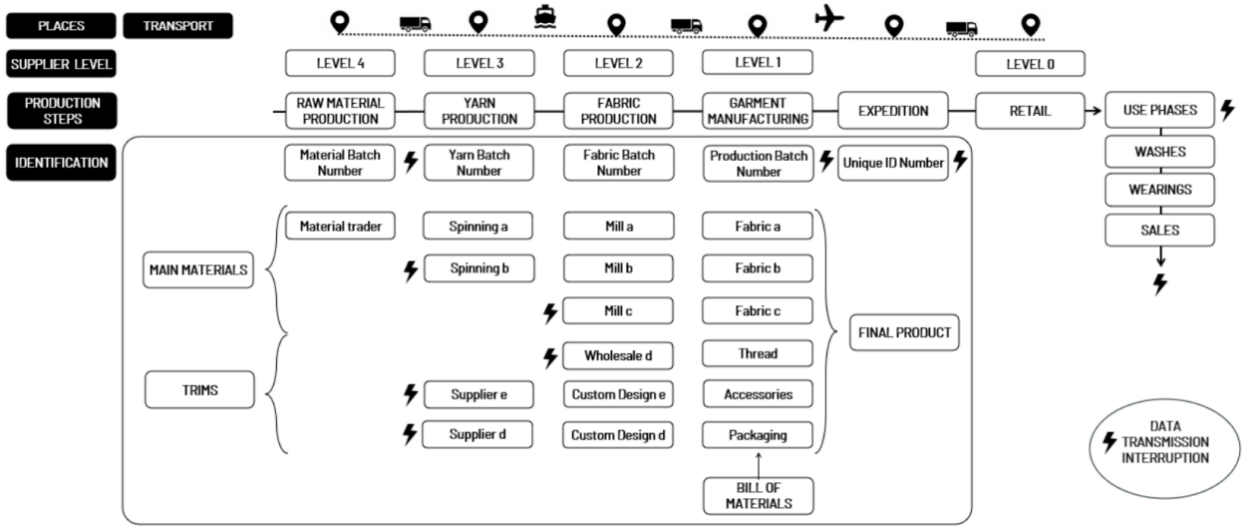
Regarding the specific role of standards within the sectors covered by this study, PPE and medical devices are based on a substantial body of standards, many of which are harmonised. For this reason, it is essential to explore how to deal specifically with these texts in a DPP is useful in a more general way, as it provides a vision of the development of a DPP for products used in a highly standardised circular business case.

## 1.5 Involved stakeholders and textile supply chain

The roles and obligations established by the European Commission under the ESPR have been outlined. However, implementing circular models requires further refinement to clearly assign responsibilities to all stakeholders. The European Union identifies **several key stakeholders** involved in the implementation and utilization of the DPP[17]: supply chain companies, brands, retailers, authorities, certification and assessment companies, circularity operators, media, consumers.

Within this study, the scope remains limited to companies in the **textile, PPE, textile care and medical devices sectors**, including either manufacturers or service providers. A general overview of the complex textile supply chain is provided by **Figure 4**.

**Figure 4**. General framework of the textile supply chain.




[16] https://cirpassproject.eu/wp-content/uploads/2024/07/CIRPASS-standardisation-gaps-and-roadmap-V1.2.pdf
[17] https://www.europarl.europa.eu/RegData/etudes/STUD/2024/757808/EPRS_STU(2024)757808_EN.pdf

# 2 Results from the consultation of SMEs in the PPE, Textile, Textile Care, and Medical Devices sectors

The survey proposed within this study has set out **two main objectives**:

- to observe and understand the DPP mechanism in the context of the identified sectors
- to identify what information are available and useful, including the analysis of challenges and opportunities in the DPP implementation

Following this objectives, a broad and accurate understanding of the relevant legislative context was essential. For this reason, this study included a preliminary collection of feedback from a limited number of **experts** qualified in this area.

To gather comprehensive insights from companies, particularly **SMEs** within the value chain, a survey was published targeting professionals who work directly with textiles across various categories. The survey questions were designed to be contextualised and straightforward, minimizing the use of technical or legal terminology that could cause confusion. Most questions were structured as closed ended to facilitate consistent and focused responses. For this phase of the study, the possibility to participate was extended to also include larger companies. This approach allowed the analysis and comparison of the specific differences between these two groups, providing a more nuanced understanding of their perspectives and needs. This further highlights the perspective of SME and their specific needs and concerns.

This chapter collects and analyses the inputs received from the relevant sectors' experts and companies.

## 2.1 Understanding the mechanisms of the DPP and the underlying issues for SMEs: Results of the survey for the experts on textile

Within this section of the study, a total of six experts were contacted. Two experts responded to the survey and the remaining one provided a smaller contribution, in particular:

- Expert 1 is from Ireland and is specialized in medical devices
- Expert 2 is employed in a German PPE manufacturing company.
- Expert 3 is employed in Germany and specializes in medical devices.

The experts contacted, including those who responded to the questionnaire, stressed the **complexity of the subject** and the difficulty of answering the questionnaire. Even the experts who responded to the questionnaire had to refrain from answering certain questions. This would

potentially highlight that further communication and dissemination activities could benefit European companies, especially SMEs, that are still not aware of the details related to the implementation of the DPP.

### 2.1.1 The DPP's place in the legislative environment

The responses from the experts reveal a range of perspectives on the integration of the DPP within the existing legislative framework for textiles, particularly for PPE and medical devices. The **complexity of the regulatory environment**, encompassing the ESPR, REACH, and the Medical Device Regulation (MDR), poses **significant challenges** for businesses, especially SMEs.

One expert highlighted the difficulties in aligning the DPP and ESPR with the stringent requirements of MDR. While the MDR emphasizes safety and functionality through strict material selection and manufacturing protocols, these do not always align with the principles of eco-design management. Although life cycle tracking is intrinsic to medical device development under MDR, simultaneous compliance with ESPR and REACH is often impractical due to overlaps and contradictions. The expert also noted that these regulatory complexities are particularly burdensome for SMEs and even for standardization bodies, as the interdependencies among these frameworks are not fully understood.

Other challenges identified include the durability of physical links between the DPP and textiles, particularly during **lengthy and uneven transition periods** when digital infrastructure remains underdeveloped. The cost of implementation, especially for SMEs dealing with low-value, high-volume items, was also a major concern. Furthermore, the **reliability and variability of input data**, as well as the adequacy of such data for regulatory compliance, present additional barriers.

Another expert emphasized the **lack of awareness** of the full scope of applicable regulations. For instance, the Ecodesign Requirements regulation references multiple existing directives and regulations, which are not always familiar to stakeholders. This lack of knowledge further complicates efforts to achieve compliance across the various regulatory regimes.

In summary, the integration of the DPP into the legislative framework for textiles faces significant hurdles, including regulatory overlaps, cost implications, infrastructure deficiencies, and knowledge gaps. These issues are particularly acute for SMEs, underlining the need for clearer guidance, streamlined processes, and supportive measures to facilitate compliance.

**"How can the DPP help you to comply with all regulations in an integrative way?"**

The experts' responses highlighted varied perspectives on the potential of the DPP to support compliance with regulations in an integrative manner. One expert suggested that the DPP's

effectiveness might depend on phased, scale-dependent requirements tailored to both organizational capacities and the criticality of textiles, such as prioritizing high-value or critical-use items before addressing lower-value or less technically demanding products.

In contrast, another expert emphasized the **DPP's limitations**, asserting that it represents only a **small component of the regulatory landscape** and that it is not a comprehensive tool for verifying compliance. While the DPP is intended to provide consumers with relevant and manageable information about products, its utility in aiding compliance lies more in offering transparency about material origins and circularity. For example, while tracing cotton back to its source may contribute to sustainability assessments, such granular information may have limited practical value for end-users.

Moreover, the second expert outlined **key types of information** that could be included in the DPP for PPE. These include technical performance, materials and origins, repair activities, recycling capabilities and lifecycle environmental impacts.

In summary, while the DPP offers opportunities for enhancing transparency and providing structured product information, its role in comprehensive regulatory compliance is constrained by limitations in scope and application. The need for stakeholder consultation and product-specific adaptations remains critical for its successful integration.

### 2.1.2 Stakeholders definitions

The experts' responses shed light on the roles of different **actors in the textile supply chain**. To establish a DPP, the responsibility lies with the manufacturer or their authorized representative when production occurs outside the EU. Maintenance of the DPP, however, is contingent on ownership arrangements and textile service companies that own and process textiles are typically tasked with maintaining the DPP. If the goods are owned by the end user or another party, the maintenance responsibility shifts accordingly, unless the textile services company is contractually designated to handle it. At the end of a product's lifecycle or during transitions like partial recycling or reuse, the DPP responsibility passes on to the entity performing those activities.

In regulated sectors, the roles remain consistent but demand additional considerations. For example, the regulatory framework for PPE and medical devices should ideally align with the general textile model but must also account for the **unique complexities of these sectors**.

Distinct responsibilities for operators in these regulated sectors should be clearly outlined in sector-specific regulations. Existing models, such as SUCAM for PPE or lifecycle management elements for medical devices, could serve as useful frameworks. Additionally, these sectoral standards should be integrated with textile-specific standards, such as those developed by

CEN/TC 248/WG 39, or aligned with circularity requirements. Explicit connections between domain-specific product standards and broader circularity objectives are critical to ensure a cohesive regulatory approach.

The responses underscore the necessity for clear definitions tailored to the specific sectors, for regulatory frameworks and for the integration of sustainability and product-specific standards. These considerations are essential for a potential implementation of the DPP for PPE or medical devices.

### 2.1.3 Establishing a common understanding and standards

The experts provided varied perspectives on integrating standards into the DPP throughout the supply chain and ensuring traceability of those standards. One expert emphasized that while benchmarks from PPE and medical devices are useful, the implementation of standards for other sectors should be scalable and less burdensome. They proposed the use of **harmonized standards** where legally required for the European market, with communication channels involving consumers, citizens, and relevant authorities for sector-specific products. The expert also suggested creating a workgroup to design a pilot program across Europe or a member state to explore an integrated system for circular solutions.

Another expert discussed the potential for specific standards, such as Oeko-Tex STeP, Oeko-Tex 100, and Made in Green, to be represented on **product labels** and DPPs starting from fabric production. This would help trace standards through the supply chain. The expert also stressed the need for special processes to ensure equal evaluation, measurability, and data presentation, particularly when dealing with complex material mixtures that cannot yet be broken down at the batch level.

As a summary, experts agree on the importance of integrating the DPP with sector-specific standards, with the recommendation to start from the existing certifications and regulatory requirements.

### 2.1.4 Level of granularity of information

The CIRPASS project explored the DPP implementation working with 4 possible levels of identification:

- Model (T-shirt)
- Variation (Red T-Shirt)

- Batch (Red T-Shirt size 48, production June 2023)
- Item

The experts provided varying perspectives on how to manage the **granularity of information** within the DPP and its integration with the supply chain, especially considering the regulatory context for PPE and medical devices. One expert proposed a scalable approach, starting with a basic level of information (e.g., item or batch level) and gradually increasing granularity as the product progresses through the supply chain, allowing for flexibility. They also suggested that circularity claims should only be made if proven by accredited management systems, such as ISO 5900X.

Another expert emphasized that the PPE Regulation and individual standards mandate specific material information, but do not require batch-level data. For products like fashion articles, the DPP aims to provide uniform presentation, though it may need to align with the **more detailed requirements of PPE standards** in certain cases. The expert further noted that SME information systems typically operate at the item level, such as garment item numbers, and suggested that a uniform approach to data presentation would be beneficial.

Regarding granularity, one expert recommended starting with basic data and progressively adding more detail as needed, while the other pointed out the challenges, and sometimes impossibility, of obtaining batch-level information from upstream suppliers due to numerous factors.

To sum up, the experts highlight the need for flexibility to determine the level of granularity for the DPP. The integration of data across the supply chain, especially for SMEs, requires careful consideration of regulatory requirements and the practicality of collecting detailed information.

### 2.1.5 Data requirements

Experts were additionally consulted on the relevant DPP data requirements for their respective sectors (see **Table 1**). The same questions were also proposed to companies and manufacturers via the general survey.

**Table 1**. Relevant categories of information included in the DPP for experts, including finished products.

| **"What categories of information regarding production are the most relevant for the PPE and medical devices sectors to be included in the DPP?"** | | |
|---|---|---|
| | **Medical Devices** | **PPE** |
| Reference (unique identification number used to track items and assets involved in the production of the product) | | ☑ |
| Identification type (tech used for information storing and retrieval during the supply chain steps – serial number, barcode, QR code, RFID chip, NFC chip) | ☑ | ☑ |
| Traceable assets (list of items transported and used along the supply chain to manufacture the product) | | |
| Composition materials | ☑ | ☑ |
| Type of processes (list of processes concerning the manufacturing and assembly of the product | ☑ | |
| Weight | | ☑ |
| Quantity | | |
| Company list (involved in the supply chain) | ☑ | |
| Location (places of operations) | ☑ | |
| Date | | ☑ |

| **"In your opinion, what categories of information regarding finished products should be included in the DPP for the PPE & Medical devices sectors?"** | | |
|---|---|---|
| | **Medical Devices** | **PPE** |
| Product reference | ☑ | ☑ |
| Identification type | | |
| Product description | ☑ | ☑ |
| Product colour | | |
| Product composition | ☑ | ☑ |
| Product size | | |
| Product weight | | |
| Products quantity | | |
| Performance | ☑ | ☑ |
| Costs | | |
| Packaging | | ☑ |
| Circular strategy (reusability, repairability, recyclability) | ☑ | |
| Brand | | ☑ |
| Location | | ☑ |
| Date | | ☑ |

| | | |
|---|---|---|
| Certifications | ☑ | ☑ |
| Compliance with standards | ☑ | ☑ |

## 2.2 Results of the survey to the companies on the requirements for SMEs in the Textile, Textile Care, PPE and Medical Devices sectors

The inputs from companies were collected through the Survey on the Digital Product Passport requirements for SMEs in the Textile, PPE and Medical Devices sectors. The survey was created through EU Survey and was made available in English, German and Italian. Structurally, it was divided into the following sections:

- Personal and organisation information (not public)
- Contextual information on the EU Digital Product Passport
- Digital Product Passport Requirements
- Availability of information throughout the supply chain
- Transition Phase
- Identification and Labelling
- Reprocess and Repair
- Costs of implementing the DPP
- Recommendations for the policymakers and public authorities

### 2.2.1 Analysis of the respondents

A total of 18 companies responded to this questionnaire, of which 14 are **SMEs**. Respectively, 4 of them deal mainly with medical textiles, 8 with PPE and 6 with other textiles. This category includes a wide variety of profiles, from dry cleaners to large international groups (see **Table 2**). Particular questions were further refined and tailored depending on the category of stakeholders to account for the intrinsic differences among them (see **Table 3**).

**Table 2**. Analysis and categorisation of the respondents.

| | Big Companies | SMEs |
|---|---|---|
| **Manufacturers** | | 3 |
| **Service Providers** | 4 | 11 |

| | | |
|---|---|---|
| **Medical Textile or Medical Devices** | 1 | 3 |
| **Other Textiles** | 2 | 4 |
| **Personal Protective Equipment (PPE)** | 1 | 7 |

| | Manufacturers | Service Providers |
|---|---|---|
| **Medical Textile or Medical Devices** | | 4 |
| **Other Textiles** | | 6 |

| | | |
|---|---|---|
| **Personal Protective Equipment (PPE)** | 3 | 5 |

**Table 3**. Example of specific question for companies categorised as service providers, specifically laundries.

| **"What is your share of leasing compared to the share of contract washing?"** | | |
|---|---|---|
| | **Big Companies** | **SMEs** |
| **Medical Textile or Medical Devices** | | 30% |
| | 97% | |
| **Other Textiles** | | 40% |
| **Personal Protective Equipment (PPE)** | | 90% |

### 2.2.2 DPP information requirements regarding production and finished products

In its recent position on the DPP standardisation request, SBS stressed the importance of treating the product throughout its value chain:

"*It is necessary to define how to manage data models in the life cycle of the products and especially how information for components is aggregated to describe an assembled product. In order to practically promote this uniformity, for products composed of other products, the Digital Product Passport should allow the inclusion of DPP information concerning other integrated product components, where relevant*.[18]"

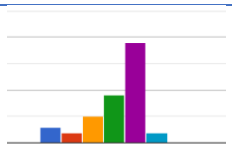
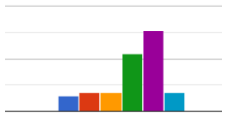
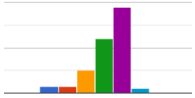
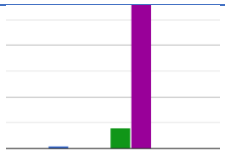
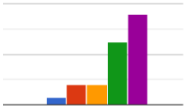
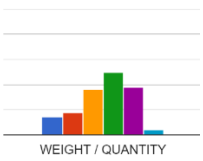
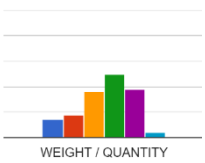
Previous literature from the **European Parliament**[19] as well as the **CIRPASS** use the 7Rs model, which has become the benchmark for sustainability within the proposed questionnaire. For the purposes of this study, questions mainly followed the 4 Rs: recycle, reuse, repair and refurbish. These are the ones that best reflect the challenges faced in the covered sectors.

To determine the specific features of PPE, medical device and other service textiles, a **comparative study** is proposed below of the most important parameters, which are meant to complement and further detail the results with those of the EP Report (see **Table 4a, 4b**).

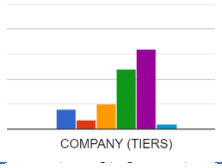
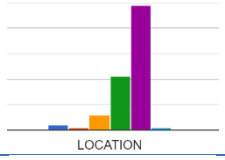
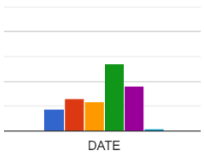
[18] SBS comments on the Draft Standardisation Request on the DPP.

[19] https://www.europarl.europa.eu/RegData/etudes/STUD/2024/757808/EPRS_STU(2024)757808_EN.pdf

**Table 4a**. DPP information requirements regarding production and finished products.

| **"How much these categories of information regarding production are relevant for your business to make products easier to recycle, reuse, repair or refurbish?"[20]** | | | | | |
|---|---|---|---|---|---|
| Do not include in DPP · Unimportant to include · Neutral · Important to include · Very important to include · I don't know | | | | | |
| **Categories** | **EP Report** | **Aggregated** | **PPE** | **Medical device** | **Textiles** |
| **Reference** or unique identification number used to track items and assets during the product's |  | Relevant | Very relevant | Somewhat relevant | Somewhat relevant |
| **Identification type** (technology used for information storing and retrieval: barcode, serial number |  | Relevant | Very relevant | Relevant | Relevant |
| **Traceable assets**, the list of items transported and used along the supply chain to manufacture |  | Somewhat relevant | Somewhat relevant | Somewhat relevant | A little relevant |
| **Composition materials** |  | Relevant | Very relevant | A little relevant | Relevant |
| **Type of processes** (list of processes concerning the manufacturing and product's assembly) |  | Somewhat relevant | Somewhat relevant | Somewhat relevant | Relevant |
| **Weight** |  | Relevant | Relevant | Somewhat relevant | Relevant |
| **Quantity** |  | Relevant | Very relevant | Somewhat relevant | Very relevant |

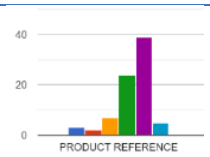
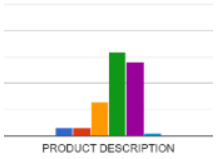
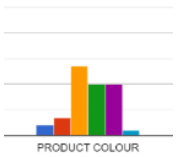
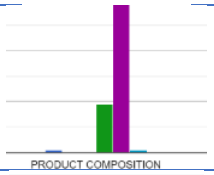
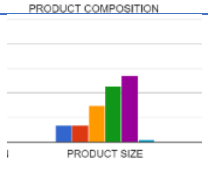
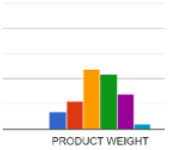
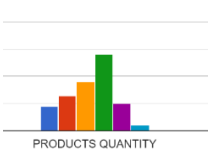
[20] For the detailed results, please consult Table 1 – Annex.

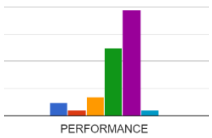
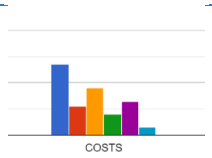
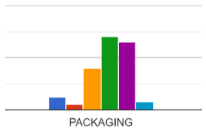
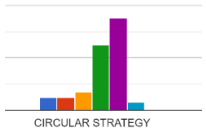
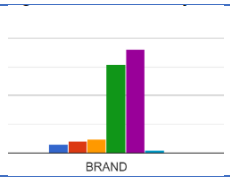
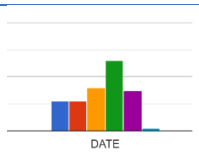
| | | | | | |
|---|---|---|---|---|---|
| **Company list** (involved in the supply chain) |  | Relevant | Relevant | Somewhat relevant | A little relevant |
| **Location** (places of operations) |  | Relevant | Relevant | Somewhat relevant | Somewhat relevant |
| **Dates** |  | Relevant | Very relevant | Somewhat relevant | Relevant |

Inputs provided highlight that textiles service professionals share similar opinions regarding the production of textiles for the textile service as those identified for the manufacture of fashion textiles by the European Parliamentary Research Service (EPSR). Certain aspects vary, in particular: the importance of Reference, Company List, traceable asset and type of process are identified by text service professionals as less important.

The composition of the material, the type of identification, the weight, the date and the quantities are therefore the most important aspects for these specific industries, but even more so for PPE and to a lesser extent for medical devices. This exemption is inherent to the characteristics of these products and will be developed in chapter 3 of this report. Other factors, such as the company list and the traceable asset play a lesser role for the textile department than for fashion.

**Table 4b**. DPP information requirements regarding production and finished products.

| **"In your opinion, what categories of information regarding finished products should be included to make the product easier to recycle, reuse, repair or refurbish?"** | | | | | |
|---|---|---|---|---|---|
| Do not include in DPP · Unimportant to include · Neutral · Important to include · Very important to include · I don't know | | | | | |
| **Categories** | **EP Report** | **Aggregated** | **PPE** | **Medical device** | **Other textiles** |
| **Product reference** |  | Relevant | Relevant | Not relevant at all | Relevant |
| **Identification type** | N/A | Relevant | Somewhat relevant | Somewhat relevant | Relevant |
| **Product description** |  | Relevant | Relevant | Somewhat relevant | Relevant |
| **Product colour** |  | Relevant | Relevant | A little relevant | Relevant |
| **Product composition** |  | Relevant | Very relevant | Somewhat relevant | Very relevant |
| **Product size** |  | Relevant | Somewhat relevant | Not relevant at all | Relevant |
| **Product weight** |  | Relevant | Relevant | Somewhat relevant | Relevant |
| **Product quantity** |  | Relevant | Relevant | Somewhat relevant | Somewhat relevant |

| | | | | | |
|---|---|---|---|---|---|
| **Performance** |  | Somewhat relevant | Somewhat relevant | Not relevant at all | Somewhat relevant |
| **Costs** |  | Somewhat relevant | Somewhat relevant | Somewhat relevant | Somewhat relevant |
| **Packaging** |  | Somewhat relevant | Somewhat relevant | Somewhat relevant | Somewhat relevant |
| **Circular strategy** |  | Relevant | Relevant | Somewhat relevant | Very relevant |
| **Brand** |  | Somewhat relevant | Somewhat relevant | Not relevant at all | A little relevant |
| **Location** | N/A | Somewhat relevant | Somewhat relevant | Not relevant at all | Somewhat relevant |
| **Date** |  | Relevant | Relevant | Not relevant at all | Relevant |
| **Certification** |  | Relevant | Very relevant | Somewhat relevant | Relevant |
| **Compliance with Standards** | N/A | Very relevant | Very relevant | Somewhat relevant | Very relevant |

As far as the composition of textiles is concerned, the vision of the textile service differs slightly from that of textile for fashion:

- Certain parameters are evaluated with the same importance, such as product reference, product composition, circular Strategy, date and certifications.

- Others differ radically, especially brand, product quantity, product size and packaging are much less important for the Textile Service. Product colour is more important.
- There is also a significant discrepancy between the different areas of business.

Medical devices attach less importance to product composition, performance, product reference, type of identification, product size, product colour, certifications and compliance with standards than other areas.

PPE attach greater importance to packaging, product weight, product weight, product description and date. The other textiles, on the other hand, give more weight to the importance of circular strategies and information.

### 2.2.3 Availability of information throughout the supply chain

From the survey, it emerges that ensuring the **availability of the information** throughout the supply chain and continuity of information even in the event of supplier bankruptcy is a very **complex challenge**. Similarly, transmitting complete and useful product information, step by step, while ensuring that it remains comprehensible, poses similar challenges.

Within the survey, a company representative noted, "*We are currently receiving hardly any data from manufacturers, and if we do, it is only in analogue form and can hardly be imported into IT systems. Furthermore, there is no standard, which is why providing it to the customer in digital form is currently unaffordable. First of all, the manufacturers have to provide standardised data information. And we also have to have the appropriate IT systems to be able to process it. Most of the current ERP systems in the industry are in no way designed or prepared for this. Therefore, we need more time to prepare our systems accordingly, or to buy/rent appropriate systems*."

### 2.2.4 Data available to end customers

**"What reasons might limit companies' ability or willingness to pass on information to their customers?"**

Companies, both manufacturers and services providers, may prefer not to disclose specific information to end customers, especially when closely linked to their competitiveness in the market (see **Table 5**). For instance, **industrial secrecy and costs** are generally the most sensitive criteria. Medical Textile or Medical Devices companies seem to be more sensitive to industrial secrecy and less so to cost information.

On the other hand, PPE and other textile companies, as well as manufacturers in general, consider costs to be sensitive information. Patents seem to be a relatively insensitive area for SMEs, while

large companies consider the multisource of components or products to be relatively insensitive. Information on prices and costs was mostly suggested. Protection of the supply chain and the number of washes and repairs, the age (time in service) of parts and activities done on the parts were also mentioned (see **Table 6**).

**Table 5**. Main motivations for not disclosing particular information

| | Industrial secrecy | Patents | Information about the costs of production | Multi-sourcing of components or products |
|---|---|---|---|---|
| Medical Textile or Medical Devices | 50% | 25% | 0% | 25% |
| Other Textiles | 25% | 25% | 33% | 17% |
| PPE | 32% | 11% | 37% | 21% |
| | | | | |
| Big Company | 33% | 33% | 33% | 0% |
| SME | 31% | 12% | 31% | 27% |
| | | | | |
| Manufacturers | 25% | 13% | 38% | 25% |
| Service providers | 33% | 19% | 30% | 19% |

**Table 6**. Data that should not be available to the customers, with detailed comments from participants.

| **"What data should not be readable by customers?"** | | | |
|---|---|---|---|
| **Manufacturers** | **Personal Protective Equipment (PPE)** | SME | All information about the source of materials before final assembly |
| | | SME | Location of manufacturing place, cost of manufacturing |
| | | SME | Prices, costs, suppliers, location, date |
| **Service Providers** | **Personal Protective Equipment (PPE)** | Big Company | All detailed costs |
| | | SME | Age of parts and activities on the part |
| | | SME | Production cycles |
| | | SME | Specific technical details like type of raw materials used |
| | | SME | Washing cycles, repair frequency, etc. are not relevant for customers. Furthermore, it is not feasible to reliably incorporate the materials we use for repairs into the systems. The variety is far too great for that, and it would make the service unprofitable |
| | **Medical Textile or Medical Devices** | Big Company | Prices, costs |

| | | | |
|---|---|---|---|
| | **Other Textiles** | Big Company | Number of washing cycles, specific details about the treatments during the laundry process |
| | | SME | Price |
| | | SME | Price |
| | | SME | Production costs |
| | | SME | Suppliers, prices |

In general, the responses from the questionnaire indicate that companies, in particular SMEs, have **concerns and reservations about the information that customers should not have access to**. This can also include specific material and production details. In addition, costs and pricing information, including production costs, detailed costs, supplier pricing, and general price-related data, were also deemed inappropriate for customers to access. Overall, the feedback underscores a need to restrict access to **business-sensitive information** and granular usage data that could be considered irrelevant or impractical to share. Further discussion on how to reconcile these concerns with the importance of sharing key sustainability data will be essential to achieve the goals set by the ESPR through the DPP.

### 2.2.5 Duration of accessibility to information

We noted a high degree of uncertainty on the part of the participants as to the duration of data they can provide (see **Table 7**). This aspect is connected to the uncertainty related to the actual implementation of the DPP, for which companies in the surveyed sectors were not yet prepared. In general, slightly longer durations were selected, even from SMEs. This is aligned with the fact that the PPE Regulation requires 10 years of availability for the documentation in this category of products.

**Table 7**. Respondents' feedback on the provision of the DPP factoring for the time duration.

| **"For how long it would be possible for you to provide the mentioned DPP information for a product?"** | | | | | |
|---|---|---|---|---|---|
| | **0 to 1 year** | **1 to 2 years** | **2 to 5 years** | **5 to 10 years or more** | **Not sure/prefer not to answer** |
| Big Company | 25% | - | - | 25% | 50% |
| SME | - | 14% | 14% | 21% | 50% |
| Medical Textile or Medical Devices | 25% | 25% | - | 25% | 25% |
| Other Textiles | - | 17% | 17% | - | 67% |
| Personal Protective Equipment (PPE) | - | - | 13% | 38% | 50% |
| | | | | | |
| A Manufacturer | - | - | - | 33% | 67% |
| A Service Provider | 7% | 13% | 13% | 20% | 47% |

When companies were asked about the minimum length of time (in years) that data for a specific product should be available, the answer was clearer: 2 to 5 years was preferred, followed by 5 to 10 years (see **Table 8**). The business sector is crucial to this question, as PPE tends to favour long durations while medical devices and other textiles are more focused on shorter terms. The manufacturers were also more inclined to ask for long terms.

**Table 8**. Respondents' feedback on the minimum accessibility to DPP data.

| **"In your opinion, what is the minimum time (in years) that the DPP data of a specific product should be accessible?"** | | | | |
|---|---|---|---|---|
| | **Between 1 and 2 years** | **2 to 5 years** | **5 to 10 years** | **Not sure/prefer not to answer** |
| Big Company | 0% | 50% | 25% | 25% |
| SME | 21% | 36% | 29% | 14% |
| | | | | |
| A Manufacturer | 0% | 33% | 33% | 33% |
| A Service Provider | 20% | 40% | 27% | 13% |
| | | | | |
| Medical Textile or Medical Devices | 25% | 50% | 0% | 25% |
| Other Textiles | 33% | 33% | 17% | 17% |
| Personal Protective Equipment (PPE) | 0% | 38% | 50% | 13% |

### 2.2.6 Relevance of the potential ESPR requirement identified by the CIRPASS

This part of the survey had the aim to compare the priorities of the potential **ESPR requirement** identified by the CIRPASS project[21]. Indeed, it is believed that the implementation of a DPP for textiles would support the development of more durable products whose lifespan could be extended by repair and reuse by new users, and through recycling to provide new high-quality products at the end of the life cycle. The potential ESPR requirements for the textile category proposed in the project's preliminary study on new product priorities are presented in more details in chapter 1.1.

The results show that the **priorities differ slightly for each business area** investigated but shows consistency and relevance across the board (see **Table 9**). The results of the survey reflect the analysis provided by CIRPASS and consolidates its findings in the currently proposed sustainability requirements. In particular, the availability of repair information and maintenance instructions

[21] https://cirpassproject.eu/wp-content/uploads/2024/04/CIRPASS_D2.2_DPP_UseCases_Report_v2.0.pdf

for operators and/or end users was among the most highlighted. Other categories relating to the repair of textiles were also particularly well rated. On the other hand, the ability to easily separate the product into different materials was identified as the least necessary for the surveyed businesses.

**Table 9**. Respondents' feedback on the potential ESPR requirements.

| "**In your opinion, what information on Textiles, PPE or medical devices are needed to make products easier to recycle, reuse, repair or refurbish?**" | | | | |
|---|---|---|---|---|
| **Categories** | **Aggregated** | **PPE** | **Medical device** | **Other Textiles** |
| **Resistance to stress** or ageing mechanisms | Relevant | Relevant | Relevant | Relevant |
| **Minimum durability** of function (repellence to oil, water or stain, colour fastness, dimensional changes) | Relevant | Relevant | Relevant | Relevant |
| Introduction to **repairability** or scoring index | Relevant | Relevant | Relevant | Very relevant |
| Availability of **repair information** and maintenance instructions for operators and/or end users | Relevant | Very relevant | Relevant | Very relevant |
| **Spare parts** availability and delivery time | Relevant | Relevant | Somewhat relevant | Very relevant |
| Number materials or **components** used | Relevant | Very relevant | Relevant | Relevant |
| **Modularity**, transformability, detachable/transformable elements | Relevant | Somewhat relevant | A little relevant | Relevant |
| Ability to easily **separate the product** into different materials | Somewhat relevant | Relevant | A little relevant | Relevant |
| Choices of materials and restrictions on **substances** | Relevant | Relevant | A little relevant | Very relevant |
| Conditions for accessing products' **data on recycling**, including dismantling information | Relevant | Very relevant | A little relevant | Very relevant |

In response to the question as to whether other criteria would make sense, the participants put forward the following categories:

- INDEX for 'recyclability'

- Maximum durability of materials: the longer they last, the less they need to be recycled and produced beforehand.

One participant also specified that the specifications must be provided by the recycling company as an acceptance condition for the economic use of these products in its process.

### 2.2.7 Products' compliance with the regulatory framework

Products' compliance in the PPE, textile, and medical device sectors is critical to **ensuring safety, quality, and regulatory adherence** across markets. Different categories of businesses present different priorities and methods to comply with national and EU regulations (see **Table 10**). In the PPE sector, compliance focuses on meeting stringent safety standards to protect users from hazards, which includes certification and conformity assessments. For the textile industry, compliance involves adhering to regulations related to product safety, environmental impact and quality standards, such as chemical restrictions and labelling requirements. In the medical device sector, compliance can be even more rigorous, requiring products to meet **strict regulatory frameworks** to ensure safety, effectiveness, and reliability, often involving testing, clinical evaluations, and certifications.

**Table 10**. Main methods for ensuring the compliance of products, with participants' replies.

| **"How do you currently document the compliance of your products?"** | | |
|---|---|---|
| **Medical Textile or Medical Devices** | SME | Composition, specification, fabric proportions in the contract |
| | Big Company | Laundries and textile rental services are not initially considered to be product manufacturers and are not subject to a declaration of conformity. In the case of medical devices, the service provider is also considered to be the manufacturer when reprocessing sterile medical devices. In this case, conformity is documented in a technical file |
| **Other Textiles** | SME | By logging, certified management system and certified quality system. |
| | | In the service through customer acceptance |
| | | Copy care labels, record processing cycles |
| **Personal Protective Equipment (PPE)** | SME | With certificates from the manufacturers (type examination certificates) and own annual tests of collections and the corresponding documentation. And when collections are introduced, appropriate washing tests are carried out to check the quality. In addition, incoming goods inspections are carried out to ensure quality in day-to-day business. Currently, this is still done by means of documents, but it is not stored in any system because the current ERP systems do |

| | | |
|---|---|---|
| | | not offer this. It would be necessary to introduce an own systems for this. |
| | | Internal Database |
| | | EC type certificate |
| | | Technical documents in accordance with the PPE regulation (declaration of conformity, test certificate, etc...) |
| | | Through storing information in own computer systems |
| | | Certificate of conformity |
| | Big Company | Conducting wash testing in advance and possessing the needed documentation |

Given the ESPR implementation timeline, it would be noteworthy to investigate if the rollout of a DPP solution may actually facilitate **companies to comply with the specific regulations** in their specific sectors. Replies from the survey are mixed but (see **Table 11**), in this context, participants indicated that the DPP could help them with their compliance for two main reasons:

- Facilitating the digital exchange, retrieval and traceability of information
- Provide more information for better washing, improving repairability of textiles and provide additional security to the products' protection

**Table 11**. Potential DPP support to established practices and compliance.

| How can a DPP help you comply with the specific regulations in your sector? | | |
|---|---|---|
| **Medical Textile or Medical Devices** | **Big Company** | The MDR and, for larger companies, the Lieferkettensorgfaltspflichtengesetz (Act on Corporate Due Diligence Obligations in Supply Chains) already stipulate information on the product and its manufacture, including in the preliminary processes, which must already be complied with. A DPP cannot "help" here but would only make things more difficult. |
| | **SME** | In the area of reusability |
| **Other Textiles** | **Big Company** | it can help to extend the lifecycle (due to maintenance and repairability) and will surely help to bring recycling on a next level. |
| | **SME** | Washing recipe, repair |
| | | Higher security responsibility product protection |
| | | Only in the material composition |
| | | can be more easily transferred to our IT system, no further labelling necessary. Even a one-time processing would then be electronically traceable. |
| **Personal Protective Equipment (PPE)** | **Big Company** | When it comes to repair or recycling all given data is very important to do both processes in a correct way |
| | | It would help with the traceability of the information regarding the PPE (standards, traceability, packaging...) |
| | **SME** | It makes data maintenance much easier and will save a lot of manual work in a few years when I can automatically import data into my systems. It also means that, for example, when we take on customers and therefore also have to include new collections, it only takes a few clicks and would otherwise take days of work. |

### 2.2.8 Transition phase and challenges in the DPP implementation

**Setting up the DPP** will require intensive data collection and structuring throughout the supply chain. The moment of transition is likely to be both the **most difficult and the most expensive** for companies. It is therefore essential to clearly define the causes and timescales needed for the industry to get through this period without significant burdens or unnecessary complexities. Among others, many factors would need to be considered, such as product lifespan, inventories, collection changes, etc.

The first questions concerned the life of the textiles in terms of the number of washes and the length of time in years that the textiles remain in use. The answers provided a very different picture depending on the type of products, type of company and sector (see **Table 12a**). However, a trend emerged of a circulation time of around 2 to 5 years for medical devices and 3 to 5 years

for PPE. For other types of textiles, the range of responses was much more varied, but generally remained around 2 to 5 years.

**Table 12a**. Average duration for which an item stays in use for both service providers and manufacturers, with comments.

| | For how long (in wash cycles) an item stays in use? | For how long (in years) an item stays in use? |
|---|---|---|
| **Medical Textile or Medical Devices** | | 1 to 3 years |
| | 80 – 150 cycles | 4 years |
| | It varies greatly from product to product | 4 years |
| **Other Textiles** | | For clothing, 2 to 5 years |
| | 200-205 cycles | 10 years |
| | 20-100 cycles | 2 to 4 years |
| | 50 cycles | 3 years |
| | | 1 to 5 years and highly depends on either the garment or the usage stress |
| **Personal Protective Equipment (PPE)** | | 3 to 5 years |
| | | For PPE, it depends too much on the use, so it is not easy to answer |
| | | Depending on the type of PPE, it can vary between one day and 5 years. |
| | 20 to 50 cycles | 3 years |
| | 30 to 50 cycles | 3 to 5 years |
| | 50 cycles | 3 to 5 years |
| | Depending on the customer and wash test but at least reach 50 wash cycles | Varies according to the collection, between 3 to 5 years for leasing |
| | Not applicable | It depends on the type of the device, ranging from 2 to 7 years |

It seems that for PPE and medical devices, it is not possible to provide a DPP for a specific PPE item that is already in use. For Other Textiles, the question presents additional nuances.

**Table 12b**. Feasibility of introducing a DPP for articles already in use

| **"Is it possible in your processes to provide a DPP for a specific PPE article which is already in use?"** | | | |
|---|---|---|---|
| | **No** | **Partially** | **Yes** |
| Medical Textile or Medical Devices | 100% | | |
| Other Textiles | 20% | 40% | 40% |
| Personal Protective Equipment (PPE) | 12% | | 88% |

As it is possible that for many companies it would not be feasible to introduce the DPP for items already in use, the **transition period** should factor in the time needed for both producers and services providers to renew their collections.

It also seems difficult for companies to define the time needed to provide the data for the DPP for a new collection. The manufacturers who responded indicated a range of 1 to 3 years. The majority of textile service companies indicated their difficulty in responding. The range of the few responses was from 6 months to 5 years. PPE manufacturers also indicated that their average stock was between 1 and 1.5 years.

### 2.2.9 Identification and labelling of products

The readability of textile identifiers throughout their life cycle is one of the biggest challenges for the industry:

*"There are other barriers to encouraging the use of DPP textile data for better sorting when it becomes available. The first relates to the unique product identifier, which should be accessible via a QR code printed on a physical label or RFID attached to the physical product. When a consumer buys a new textile product, he or she often immediately removes the label, or it often becomes damaged in the wash. If no solution is found to attach a permanent identifier to textile products, the development of new sorting technologies capable of automatically accessing DPP data will make no sense.[22]"*

Various opportunities have also been identified in this context. While it is still unclear how much additional product data will be required with the implementation of the DPP, it is evident that the volume of product-related attributes and data will increase significantly. To adapt to this, SMEs will need to **reorganize their processes** and focus on **automating data generation**, which could in turn improve process efficiency. Furthermore, the anticipated scaling effects of DPP-as-a-

[22] cirpassproject.eu/wp-content/uploads/2024/04/CIRPASS_D2.2_DPP_UseCases_Report_v2.0.pdf

Service solutions, IT services, RFID devices, and supporting infrastructure could eventually lead to savings in overhead costs, including labour expenses, but only in the long term and after substantial investments. These financial benefits could eventually help to offset some of the costs associated with DPP implementation.

SBS has stated that there is the need for interoperable Standards in multiple occasions, stressing that the data carrier and the unique identifiers should be created to ensure that the information contained in the product passport can be accessed, recorded and transmitted by all economic operators, depending on their access rights, as well as to guarantee the compatibility of the unique identifier with external components such as scanning devices. All economic operators along the value chain must be given the possibility to create a DPP based on **harmonized, open and interoperable standards**, without depending on any commercial technology provider and without the obligation to purchase any kind of license, service, or payable registration.

In this section, the survey was built upon the analysis of the use of identifiers from the results of the CIRPASS project. The first step was to identify which identifiers were used in the surveyed sectors (see **Table 13**). For instance, the NFC is not used at all, and the two leading identifiers are barcode and RFID. In particular, the survey highlights that:

- The **QR** code, which is little used, is mainly used by manufacturers. QR codes are used in PPE and medical devices, but not in other textiles
- **RFIDs** are used very little by manufacturers and they are mainly used by the Textile Department
- **Data matrix** is a little less widespread than RFID and even less so than barcodes.
- Currently, the **barcode** is significantly the most widely used method of product's identification while the surveyed companies highlight that they are not employing the NFC

**Table 13**. Identification mechanisms in use.

| | Barcode | Data matrix | QR Code | Radio frequency identification (RFID) | NFC |
|---|---|---|---|---|---|
| **Big Company** | 50% | 13% | 0% | 38% | 0% |
| **SME** | 44% | 16% | 19% | 22% | 0% |
| | | | | | |
| **Medical Textile or Medical Devices** | 33% | 25% | 17% | 25% | 0% |
| **Other Textiles** | 55% | 18% | 0% | 27% | 0% |
| **Personal Protective Equipment (PPE)** | 47% | 6% | 24% | 24% | 0% |
| | | | | | |
| **A Manufacturer** | 43% | 14% | 29% | 14% | 0% |
| **A Service Provider** | 45% | 15% | 12% | 27% | 0% |

### 2.2.10 Reprocess and repair

The CIRPASS project has focused extensively on the challenges surrounding textile reprocessing and repair[23]. Textile collection, sorting, and recycling are managed by private waste companies that deal solely with end-of-life textile products. According to the EU Waste Framework Directive, any item is classified as waste the moment it is discarded, even if it can later be sold for reuse. Textiles are collected via containers stationed near charity associations, on public and private roads, or through large mobile containers provided to associations. These containers, often owned by wholesale collectors but managed by associations or municipalities, can undergo preliminary sorting before collection. Once full, the containers are collected, weighed, and transported to sorting facilities.

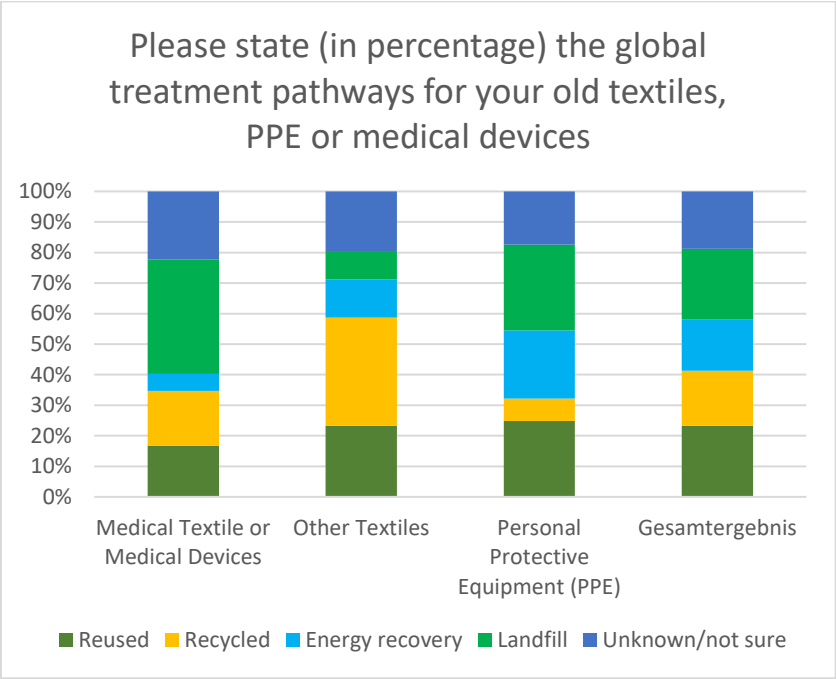
These containers house a diverse mix of items, including clothing, home textiles, shoes, and even stuffed toys, regardless of their cleanliness or reusability. On average, a container holds about five thousand tons of textiles, and wholesale collectors process between several hundred to over a hundred thousand tons annually, depending on their scale. At sorting centres, experienced workers manually and visually categorize textiles into over a hundred types, assessing their potential for reuse or recycling based on criteria like condition, colour, stains, and peeling. Product labels, when present, are seldom used in the sorting process, making the expertise of staff critical for cost-effective and efficient operations.

Currently, **no advanced automated technologies exist to streamline fibre sorting or preprocessing for reuse markets**, and automation for evaluating functional quality remains unlikely in the near future. After sorting, around 50-60% of textiles are deemed reusable, 35% are recycled, and the remaining 15% are incinerated, sent to landfills, or used for energy recovery (see **Figure 5**). These figures align with the general composition of post-consumer textiles in Europe, despite minor variations across data sources.

Within this survey, the global treatment pathways for textile are explored and for PPE and medical devices, the landfill is the main solution found. In addition, PPE is also widely used for energy recovery while for other textiles, recycling and reusing are the main solutions.

[23] cirpassproject.eu/wp-content/uploads/2024/04/CIRPASS_D2.2_DPP_UseCases_Report_v2.0.pdf

**Figure 5**. Global treatment pathways expressed by the participants.




The size of the company and whether it is a manufacturer, or a textile service does not play a major role in the responses (see **Table 14**). Results from the survey show that 3 of the 4 large companies work for PPE or medical devices and all the manufacturers make PPE:

**Table 14**. Treatment pathways by company type and sector.

| | Big Company | SME | Other |
|---|---|---|---|
| **Unknown/not sure** | 8% | 21% | 19% |
| **Landfill** | 14% | 25% | 23% |
| **Energy recovery** | 33% | 13% | 17% |
| **Recycled** | 39% | 13% | 18% |
| **Reused** | 6% | 28% | 23% |

| | A Manufacturer | A Service Provider | Other |
|---|---|---|---|
| **Unknown/not sure** | 38% | 14% | 19% |
| **Landfill** | 33% | 21% | 23% |
| **Energy recovery** | 10% | 19% | 17% |
| **Recycled** | 0% | 23% | 18% |
| **Reused** | 19% | 24% | 23% |

The only risks of reprocessing identified for product performance and recyclability are the use of impregnation with fluorocarbon products and the introduction of new materials during repair (see **Table 15**).

**Table 15**. Consequences of reprocessing on product's performance and recyclability, with comments.

| | **"How does reprocessing affect the product's performance and recyclability?"** |
|---|---|
| **Medical Textile or Medical Devices** | It does not affect |
| | Not relevant |
| | Reprocessing is washing in our service, so no restrictions. Possibly a repair could bring a restriction depending on the repair material but only a recycler can answer whether that would be the case. |
| **Other Textiles** | Significantly |
| | in most cases the product's performance decreases |
| | Recycled fibres are not as durable as new fibres |
| **Personal Protective Equipment (PPE)** | Any changes may impair the protective function, so that repairs or modifications must be carried out in accordance with the standards |
| | It is likely that the quality over the lifetime has no loss |
| | Physical properties are reduced |
| | The product is tested before use - i.e. FC finish for ppe class 3 |
| | Reprocessing is a major issue for in-house products |
| | Very affected and there will be a need to carry out selected performance tests |
| | We don't reprocess our products, they're working items and, usually, they're contaminated with different substances (unknown by our side) |

To create a repair and reused history, it seems that a significant amount of information and support is needed in combination (see **Table 16**).

**Table 16**. Information needed to create a repair and reuse history, with comments.

| **"Which information should be collected for creating a repair and reuse history? (for instance, schemes, photos, texts, etc.)"** | |
|---|---|
| **Medical Textile or Medical Devices** | A repair history for products of our service would be unfeasible. Most likely, just to avoid this effort, a significantly higher number of products would end up in recycling before repair, since the costs of documentation would exceed the benefits. |
| | Photos, texts and fabric composition |
| **Other Textiles** | An internationally understandable solution (Schemes, Photos...) |
| | That should be left to the companies that specialise in it. |
| | Photos |
| | Photos texts place date |
| | Washing cycles |
| **Personal Protective Equipment (PPE)** | Actually, it's very difficult to repair and reuse our items as they're used in the industry |
| | Article composition (materials), repair process (texts, images), finishing processes |
| | Database / RFID |
| | Detailed schemes of the whole device and possible with photos of each sub-assembly to be repaired or recycled presented in a table |
| | Schemes & photos |

More than half of textile products can change owner and/or textile service provider without any major changes to the product. This number is lower for PPEs (see **Table 17**).

**Table 17**. Change in ownership or textile service supplier.

| **"How many (in percentage) of your textiles could change ownership and/or changing textile service supplier without significant changes to the product?"** | |
|---|---|
| **Big Company** | 50% |
| **SME** | 66% |
| **Medical Textile or Medical Devices** | 67% |
| **Other Textiles** | 75% |
| **Personal Protective Equipment (PPE)** | 44% |

**Transferable information** depends greatly on the type of textile:

- Functional and technical specifications are transferable for PPE and medical devices, but not for other textiles
- Repair and reuse history is often transferable for medical devices and other textiles, but not for PPE

- Product design and service is never transferable for other textiles
- Usage history is difficult to transfer for PPE
- and certification is difficult to transfer for medical devices

Understandably, manufacturers find it easier to transfer information about the product, the text-based service and its history of use.

**Table 18**. Respondents' inputs on the kind of information that could be transferred or sold.

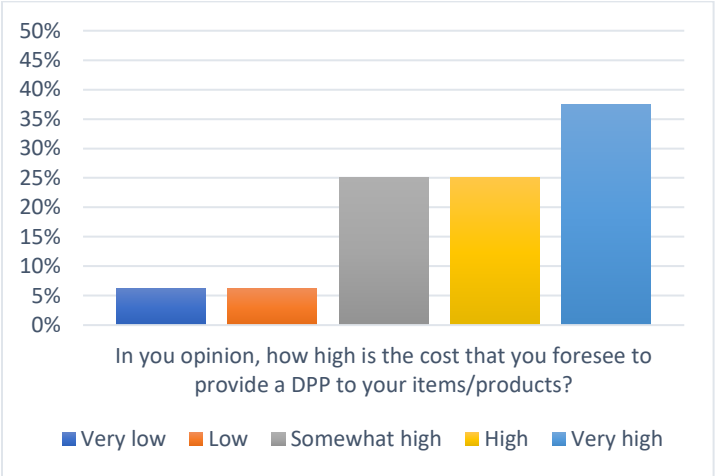
| "What information could be transferred or sold?" | | | |
|---|---|---|---|
| **Categories** | **Medical Textile or Medical Devices** | **Other Textiles** | **PPE** |
| Functional and technical specifications (minimum durability of function, repellence, colour fastness or dimensional changes) | 75% | 17% | 75% |
| Repair and reuse history | 50% | 67% | 25% |
| Material and composition information (CE marking, fibre composition, other substances) | 50% | 50% | 88% |
| Product design and service | 50% | 0% | 50% |
| Usage history | 50% | 67% | 25% |
| Certifications | 25% | 50% | 75% |

| | **A Manufacturer** | **A Service Provider** |
|---|---|---|
| Functional and technical specifications (minimum durability of function, repellence, colour fastness or dimensional changes) | 67% | 53% |
| Repair and reuse history | 33% | 47% |
| Material and composition information (CE marking, fibre composition, other substances) | 100% | 60% |
| Product design and service | 33% | 33% |
| Usage history | 33% | 47% |
| Certifications | 67% | 53% |

### 2.2.11 Costs of implementing the DPP

The replies collected in the survey highlight that the potential **costs for the participant to produce a DPP for their products would be very high**.

**Figure 6**. DPP implementation costs foreseen.




Within the survey, it was asked what are the main changes or investments that companies need to make to **comply with the DPP** and whether these will be expensive (see **Table 19a, 19b**). Replies included:

- Investing in software
- Collecting all required data and development of the DPP adjusted to the requirements and market: additional administrative work
- Accepting an external provider, which will lead to an increase in costs
- Labelling could cost more than one euro per article

These responses indicate a strong belief on the part of industrialists that the DPP's level of information will necessarily be the item level. The 'not relevant' answer is interesting because it highlights the pressing firms, which play an important role in the textile service, but are only 'consumers' for the DPP.

**Table 19a**. Respondents' concerns in the investments required and costs-increase, with comments.

| **"What are the main changes or investments that your company needs to implement to comply with the DPP? Will they induce a cost increase?"** |
|---|
| Increase in textile purchase price, time required. The further costs are not foreseeable are there is no cost information on the DPP yet |
| Traceability in the supply chain may lead to cost increase and it might take place due to additional administrative work |
| Requirement of acquiring an external provider, which will lead to an increase in costs |
| Collecting all required data and development of the DPP to adjust to the requirements and market will require investments |
| Better tracking of textiles - origin, composition, areas of use and what stresses the textiles or what have been exposed to. Indeed, it would lead to an increase in costs. |

| |
|---|
| Data collection / data base will be necessary - partially yes |
| Investment in software - certainly in the six-figure range per company. Plus, any additional labelling - approx. 1.30 euros per item - would definitely increase the service price significantly. This only makes sense with appropriate transition phases to minimise the need to touch old articles |
| Re-labelling of the articles |
| Staff costs will rise |
| Implementation and ongoing support will be very expensive |
| Yes, we will see a cost increase due to additional people doing the work inside the company and as we need to invest in software |
| A maximum of 25% of all textiles are individually tracked. The highest cost factor would be the labelling and recording of all textiles for individual tracking. There are items for which the identification and documentation costs exceed the procurement costs many times over. Companies also need automatic recording systems to determine and document the processing cycles, for example. Since such systems do not ensure 100% readability, multiple reading at different sections is required to achieve 100% readability. The introduction of a DPP would result in significant costs for the implementation of these positions alone |
| Adaptation of processes and systems (suppliers, CWS product management, CWS ERP, etc.) |
| Improve our ERP, it will induce a cost increase |

As implementing the DPP is likely to be expensive, it is worth to assess which are the main aspects that could be proven costly for companies to proceed with the rollout of DPP solutions.

**Table 19b**. Respondents' concerns in the investments required and costs-increase, with comments.

| **"What processes will you be able to do <u>internally</u> (not externalised to other companies)?"** | | | | | | |
|---|---|---|---|---|---|---|
| | **Linking the product to the DPP "Addressbook"** | **Provide the sustainability information needed by the DPP** | **Collect and manage the data from suppliers** | **Creating the interface between the different IT systems** | **Certifications** | **Providing the IT infrastructure for the DPP database** |
| **Manufacturers** | 33% | 33% | 67% | 33% | 67% | 33% |
| **A Service Provider** | 40% | 13% | 60% | 27% | 53% | 40% |
| | | | | | | |
| **Big Company** | 50% | 0% | 100% | 25% | 75% | 50% |
| **SME** | 36% | 21% | 50% | 29% | 50% | 36% |
| | | | | | | |
| **Medical Textile or Medical Devices** | 25% | 25% | 50% | 75% | 25% | 25% |
| **Other Textiles** | 33% | 0% | 67% | 17% | 50% | 33% |

| | | | | | | |
|---|---|---|---|---|---|---|
| **Personal Protective Equipment (PPE)** | 50% | 25% | 63% | 13% | 75% | 50% |

Overall, when directly asked, most respondents were **unable to provide a precise figure** for how much their company could pay for a DPP service provider to comply with regulations. However, one respondent estimated that the cost for new article labelling would start at least from €3,500. Similarly, when asked about the specific **extra fixed costs** for implementing the DPP, no respondents could provide a concrete number, emphasizing the uncertainty surrounding the implementation process. To ensure a level playing field and preserve the competitiveness of businesses, especially SMEs, more certainty would be needed around the implementation of the DPP. This would include provide clear information about the practical implementation while also providing guarantees, **guidelines and funding** necessary to a successful transition phase.

### 2.2.12 Recommendations on the DPP implementation and role of standards

To ensure a smoother transition for the implementation of the DPP, several key actions have been suggested for the public sector. These suggestions fall into **five main categories**: communication, implementation, IT infrastructure development, funding, standards and legislation.

**Communication:**

Clear and transparent communication of specific requirements, along with targeted information campaigns, is seen as essential to guide stakeholders effectively.

**Implementation:**

The implementation process should focus on simplicity and efficiency by building on existing systems and standards to avoid creating additional complexities. Simple and practical information requirements during the implementation phase are critical to prevent overburdening SMEs. Additionally, providing an adequate transition period would help businesses adjust to the new system without unnecessary pressure.

**Supporting the development of the necessary IT Infrastructure:**

A fully functional IT-supported infrastructure, particularly at the EU level, is necessary to facilitate the implementation of the DPP. Establishing a central point of contact for information would further streamline communication and support. Similarly, further support should be provided to the digitalisation of in-house process for companies, especially SMEs.

**Provide Funding:**

Substantial funding will be required to reorganize the IT infrastructure and manage the associated costs. Some participants suggest that at least 50% of the transitional costs should be covered to ease the financial burden on companies.

**Take Care of Standards and Legislation:**
Developing clear and understandable reference standards is crucial for consistency. The public sector should also enforce the validity of laws and regulations across all suppliers, including those outside the EU. Furthermore, existing certifications should be considered to prevent redundancy and ensure alignment with current practices.

**"How can standardisation and standards support this process?"**

Respondent mainly highlighted that standardization, and standards can play a crucial role in supporting this process by making it simple, understandable, and feasible to implement. They can help facilitate the use of textile certificates and are essential for developing effective and reliable software, as achieving this without clear standards would be extremely challenging. Additionally, standardization can provide proposals for measurement parameters, identification technologies, standardized methods for calculating CO2 emissions, and scales for R strategies. In line with the European Commission's Standardisation Request, establishing clear requirements for the Digital Product Passport through standardized frameworks would also be necessary to ensure consistency and efficiency.

# 3 Policy recommendations and conclusions

Participants evaluated the priorities concerning the **ESPR requirements for textiles**. They unanimously agreed that categories related to textile repair, such as providing maintenance and repair information for end-users and independent operators, are essential. The number of materials or components used and the conditions for accessing product recycling data, including dismantling information, were also ranked highly, except for medical devices. This exception is due to the simplicity and extensive documentation of medical devices under the MDR.

Textile service professionals shared similar views on textile production as those identified for fashion textiles, with one key difference: supply chain information (e.g., references, company lists, traceable assets, and process types) is less important. This is because textile service companies, given their expertise, are more familiar with their value chains than consumers of fashion textiles.

Material composition, identification type, weight, production date, and quantities were deemed the **most critical aspects** for the industry, especially for PPE and, to a lesser extent, medical

devices. These high-value-added products are typically produced in small to medium batches. In the "other textiles" category, which includes products like hotel and restaurant linens, mops, dust mats, and items processed by dry cleaners, analysis is more complex due to the diversity of products. Hotel and restaurant linens are mass-produced, while dry cleaners handle fashion textiles requiring reprocessing.

Certain **parameters**, such as product reference, composition, circular strategy, date, and certifications, are equally important across sectors. However, others, like brand, product quantity, size, and packaging, are less relevant to the textile service industry. Colour, however, is crucial, as laundry requires sustainable processing and colour consistency. The Digital Product Passport should address these needs.

**Significant differences were noted across business areas.** For example, medical devices prioritize safety and hygiene over factors like product composition, performance, size, colour, and certifications. Medical textiles are often mass-produced with minimal variation among suppliers, and the choice of textile composition is less critical compared to PPE.

Both experts and industry representatives identified **certification and compliance with standards as key success factors** for the DPP and ESPR. However, they highlighted challenges in implementing the DPP for medical devices and PPE. **Safety and hygiene priorities often conflict with sustainability objectives**, as seen in the lack of alternatives to fluorocarbon products for chemical-protective PPE. Furthermore, the growing complexity of regulations poses significant risks for SMEs, which often lack the resources to manage compliance.

Experts also emphasized the difficulty of obtaining reliable inputs, particularly from outside Europe, and warned that collecting **excessive information** could overwhelm consumers and create an unsustainable bureaucratic burden for SMEs. Both industry and experts advocated for using standards to address these challenges

## 3.1 Organisation of the information in the supply chain

Organizing supply chain information will be a **significant challenge for the industry** as well as the implementation of the DPP. The first step is to clearly define the roles of all stakeholders. Different categories of roles should be established, specifying the data users can access and their responsibilities for providing input. For instance, it would be relevant to classify dry-cleaning businesses as users to shield them from excessive administrative burdens.

One proposed role structure includes:

- Establishing the DPP: The manufacturer or authorized representative (for production outside the EU).

- Maintaining the DPP: Textile service firms when they own and process the textiles. If another party owns the goods, maintenance falls to them or, if agreed contractually, to the textile service company.
- End-of-life or transition activities: Responsibility lies with the party conducting recycling or reuse activities.

While the manufacturer's role is straightforward, the textile service sector's role requires nuance. Textile services could fall under categories such as reprocessing, repairability, reuse, resale or second life. However, sub-roles must differentiate laundries from industries like battery repair, as imposing identical obligations could discourage textile repairs. Full, complex documentation for every small repair would be very burdensome for medical devices, which are low-cost, high-volume products.

The second step is to define the level of information required for products. Experts suggest using existing regulatory scales, such as those in the MDR and PPE Regulations, which specify material details without requiring batch-level information. Flexibility is crucial to **account for diverse textiles and business models**. For example:

- Laundries need colour accuracy for sustainable processing, making a variation-level DPP vital.
- Dry cleaners for private clients don’t require details from the variation level, but the model level as more detailed information is not relevant to their operations. They are using only the textile care labelling.
- For medical textiles, the model level identification was considered sufficient because more information would confuse consumer. Generic but precise parameter would suffice.

The third step involves identifying the DPP's objectives and **benefits for the supply chain**. Key advantages include:

- Enhanced access to master data (e.g., manufacturer details, washing instructions).
- Broader adoption of ERP systems and labelling standards, such as GTIN.
- Improved access to environmentally conscious purchasing information.
- Structured compliance workflows for textile service firms, enabling better interoperability and simplified processes.
- Comprehensive fibre reporting to facilitate recycling and new sorting businesses.

Despite these benefits, participants highlighted significant challenges and risks:

- **Cost and Bureaucracy**: The DPP could impose substantial costs, particularly for low-value, high-volume items typical in textile services. Required investments include software, data collection systems, and labelling (over €1 per article).

- **Digital Infrastructure**: Many SMEs lack robust IT systems. Without support, setting up the required infrastructure may prove too complex and costly.
- **Transparency Risks**: Excessive transparency could compromise industrial secrets and lead to unfair competition. The flexible nature of supply chains, particularly those involving suppliers outside Europe, further complicates the collection and verification of detailed data.

To address these issues, the European Commission must **prioritize standards and certifications**. Leveraging existing harmonized standards and creating new ones for data aggregation will be essential. Certification systems can make the DPP easier to implement, reduce administrative burdens, and protect SMEs while ensuring industrial secrecy and data protection.

## 3.2 Organisation of the Information within the use of the product

PPE and medical devices are often disposed of through landfill or energy recovery at the end of their lifecycle, while other textiles are typically recycled. This distinction arises from the composition of PPE and medical devices, which prioritize protective functions and are less suited to radical changes in materials or processing.

To address this, it is crucial to develop durable, repairable, and transferable PPE and medical devices. While achievable, this goal faces significant challenges. Encouraging the creation of standards and methods to document usage history is essential, particularly for PPE, despite the complexity. Additionally, introducing a recyclability index and guidelines for the maximum durability of materials is recommended.

Another key consideration is the **legibility of product identifiers** throughout their lifecycle. Textile services primarily use RFID and barcodes, while manufacturers often use QR codes and barcodes. Most identifiers are designed to last the product's lifetime, but durability can be compromised during use, such as when wearers cut off labels.

Given the absence of a flawless identification method, redundancy in identifiers is necessary to ensure traceability. The textile sector already employs high-quality identifiers, as replacing them is costly, with expenses reaching up to €5 per identifier in some cases.

## 3.3 Transition period

To implement the DPP effectively in textile service companies, it is essential to consider their circular business model, which differs from traditional sales-focused models. This circular approach operates over a longer timeline and requires phased implementation.

A minimum period of 4–5 years is necessary for incorporating the DPP into laundry purchasing cycles. This allows sufficient time for integration into collection processes and helps prevent the large-scale disposal of textiles. Additionally, a grace period of at least 2 years should be granted for textiles already in circulation, as not all textile stocks move through the system at the same pace. This timeline aligns with the time consumers need to return older textiles without DPPs to sorting centres. In total, a transition period of approximately 7–8 years is required to implement the DPP smoothly and sustainably across the textile service industry.

## 3.4 Further recommendations

Implementing the DPP demands a coordinated and strategic approach from the public sector to ensure a seamless transition for industries. Clear, effective communication is key, including detailed guidelines on requirements and an awareness campaign to inform stakeholders. **Simplification is essential.** Leveraging existing systems and minimizing unnecessary bureaucracy will help businesses, particularly SMEs, adapt without being overwhelmed. A phased rollout over several years, paired with sufficient transition periods, will reduce disruptions and encourage compliance.

**A strong IT infrastructure is crucial**, featuring a centralized platform for information and support to provide businesses with the necessary tools for DPP integration. **Public funding**, covering at least 50% of IT restructuring costs, would greatly support this transition, especially for smaller enterprises.

**Standardization** is critical to the success of the DPP. Clear, practical standards will make requirements comprehensible and actionable, promoting the adoption of textile certifications and encouraging the development of DPP-specific software—a key challenge in this transition.

Moreover, standardized measurement parameters, identification technologies, and metrics like CO2 emissions or R-strategy scales will ensure consistency across industries and regions. A harmonized framework will align stakeholders and foster a shared understanding, making DPP implementation not only feasible but also efficient and inclusive.

Overall, the integration of the DPP into the investigated sectors faces significant hurdles, including regulatory overlaps, cost implications, infrastructure deficiencies and data gaps. These issues are particularly acute for SMEs, underlining the need for clearer guidance, accessible standards and supportive financial measures linked to the digitalisation of processes.

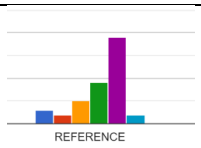
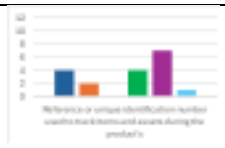
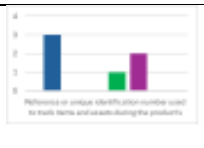
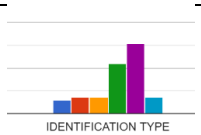
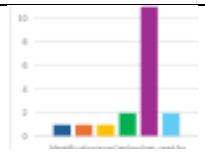
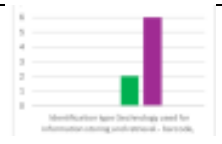
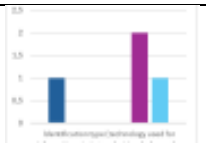
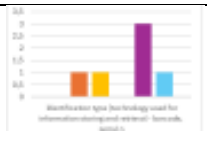
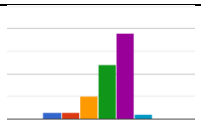
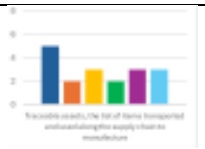
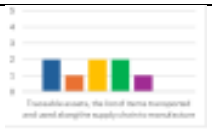
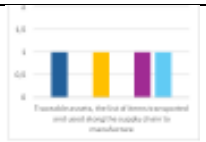
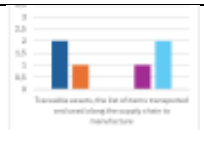
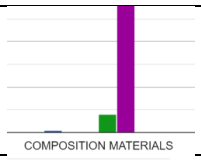
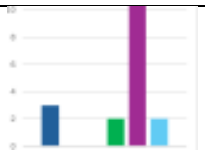
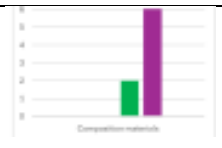
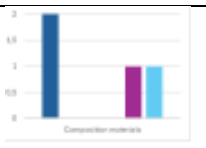
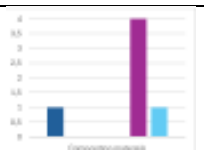
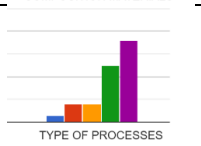
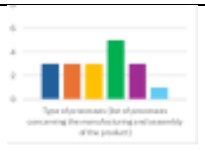
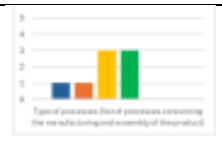
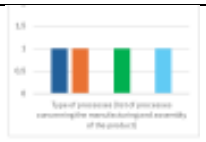
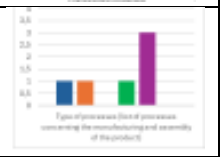
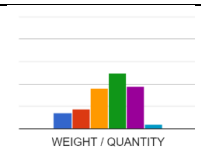
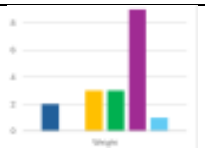
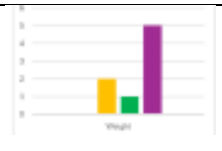
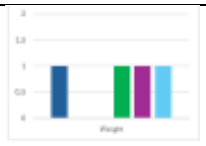
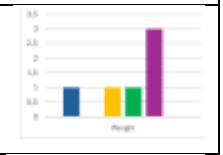
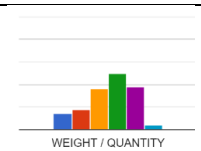
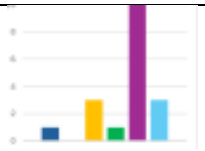
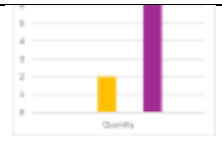
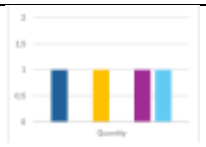
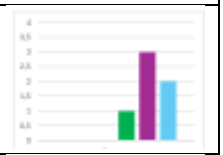
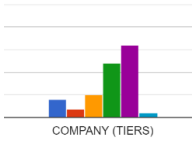
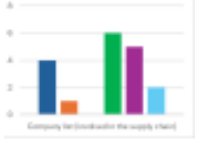
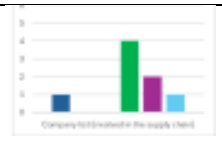
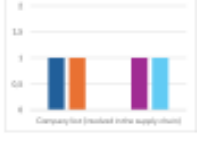
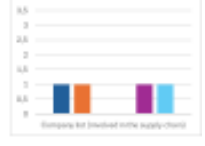
SMEs active in the PPE, textile care and medical device sectors that need to comply with their sectoral regulatory frameworks and standards stand to positively benefit from their exclusion from the mandatory requirement of providing the DPP for their products.

# Annex

**Table 1 – Annex**. Disaggregated and detailed information of the survey replies on the relevant information that could be contained in the DPP, including finished products.

"How much these **categories of information regarding production** are relevant for your business to make products easier to recycle, reuse, repair or refurbish?"

Do not include in DPP | Unimportant to include | Neutral | Important to include | Very important to include | I don't know

| Category | EP Report | Professional Textiles | PPE | Medical device | Other textiles |
|---|---|---|---|---|---|
| Reference |   |  |  |  |  |
| Identification type |   |  |  |  |  |
| Traceable asset |   |  |  |  |  |
| Composition Material |   |  |  |  |  |
| Type of process |   |  |  |  |  |
| Weight |   |  |  |  |  |
| Quantity |   |  |  |  |  |
| Company list |   |  |  |  |  |

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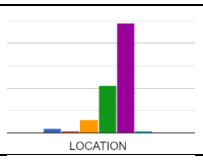
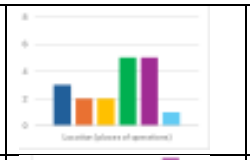
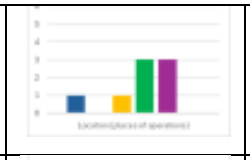
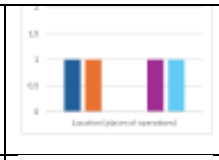
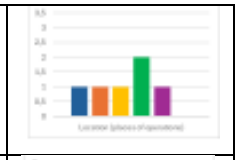
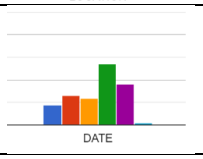
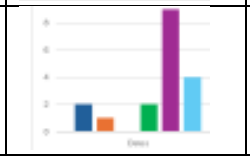
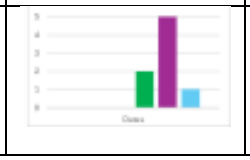
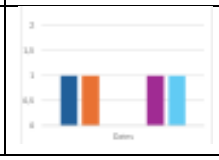
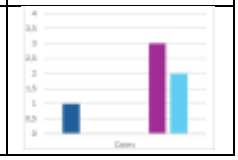
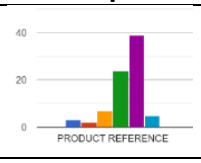
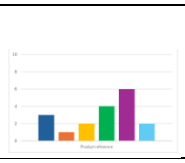
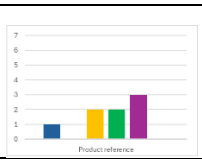
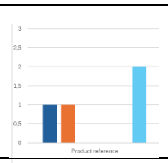
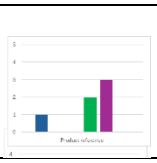
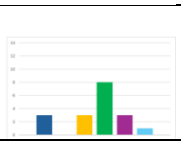
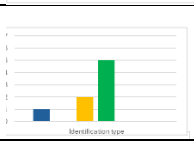
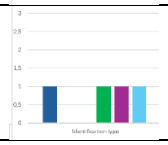
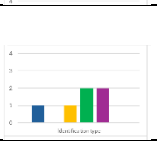
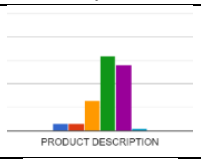
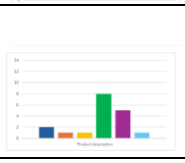
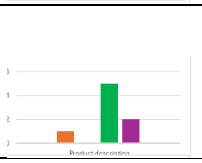
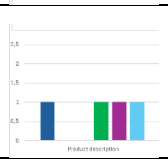
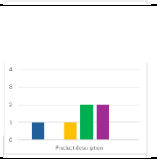
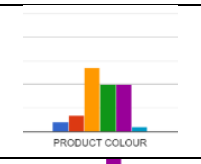
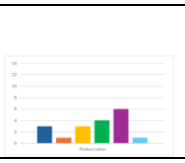
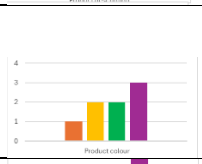
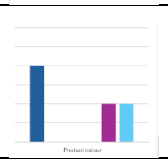
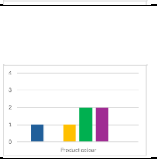
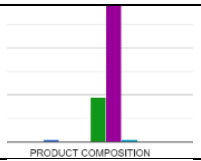
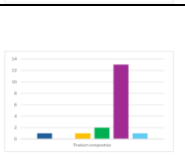
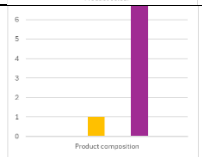
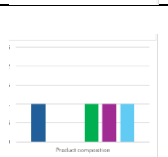
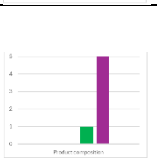
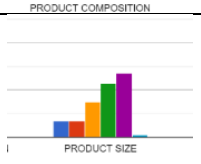
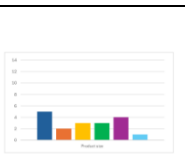
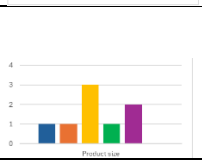
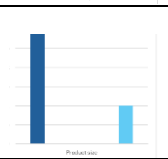
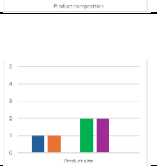
| Location |  |  |  |  |  |
| Date |  |  |  |  |  |

In your opinion, what **categories of information regarding finished products** should be included to make the product easier to recycle, reuse, repair or refurbish?


| Category | EP Report | Professional Textiles | PPE | Medical device | Other textiles |
|---|---|---|---|---|---|
| Product reference |  |  |  |  |  |
| Identification type | N/A |  |  |  |  |
| Product description |  |  |  |  |  |
| Product color |  |  |  |  |  |
| Product composition |  |  |  |  |  |
| Product size |  |  |  |  |  |
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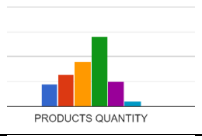
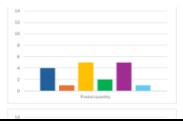
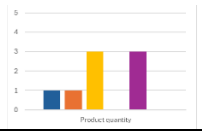
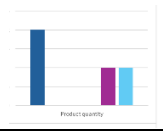
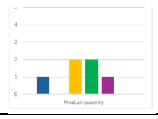
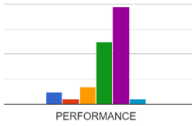
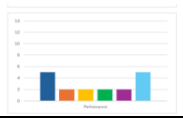
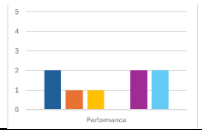
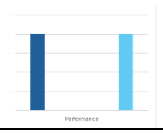
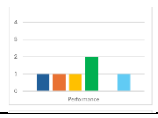
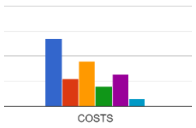
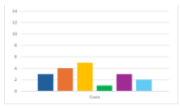
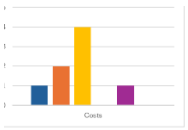
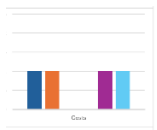
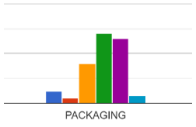
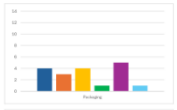
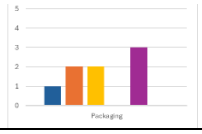
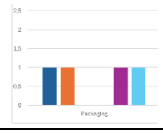
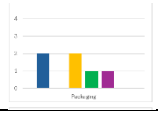
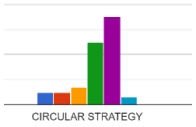
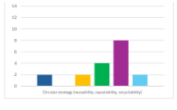
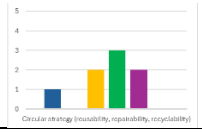
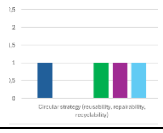
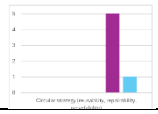
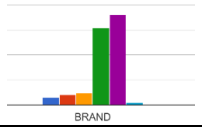
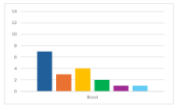
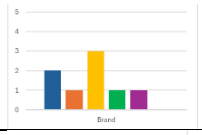
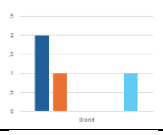
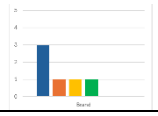
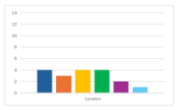
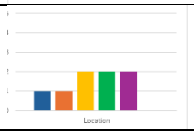
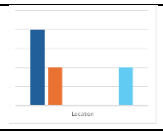
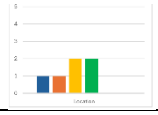
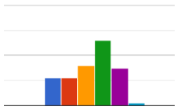
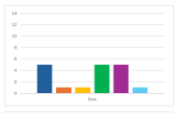
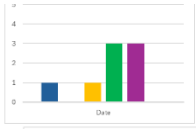
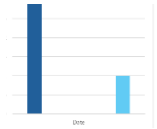
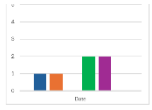
| Product quantity |  |  |  |  |  |
| Performance |  |  |  |  |  |
| Cost |  |  |  |  |  |
| Packaging |  |  |  |  |  |
| Circular strategy |  |  |  |  |  |
| Brand |  |  |  |  |  |
| Location | N/A |  |  |  |  |
| Date |  |  |  |  |  |
| Certification |  |  |  |  |  |
| Compliance with Standards | |  |  |  |  |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