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Article

Digital Product Passport—EU Sustainability and Circularity Regulation

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Abstract: The good arguments for the EU Ecodesign for Sustainable Products Regulation (ESPR), including the Digital Product Passport (DPP), are ‘queuing up’, as the ESPR can help reduce waste and pollution, harmonize requirements on performance and information, increase trust among business partners and end-users, promote a level playing field for businesses in Europe, and potentially position European industries in the international competition. The ESPR is a response to the coordination problems regarding circularity and the externality problems that individual industries encounter and create in their activities. From industry side, there are, however, also counter interests and arguments. The performance and information requirements can be seen as a burden on businesses, and especially the small and medium-sized enterprises have expressed concerns to that effect. The paper discusses the drivers and barriers for the implementation of the information requirements of the Digital Product Passport.

Keywords: circular economy; digital product passport; European Union; product data

1. Introduction

For more than thirty years, the potentials of IT and digitalization for improving environmental sustainability has been on the agenda in academia and society at large. First, emphasis was on the potentials of communication technologies for reducing commuting and business travelling. Then, the possibilities for dematerializing production came into focus, and lately, the prospects of digital technologies for becoming infrastructures for more circularity in the economy have caught the attention.

The reason that digital technologies should be able to facilitate circularity in the economy is that circular as opposed to linear production, consumption and disposal will require far more communication and exchange of data and information between the various links in the life cycle of products. This is where the initiative of the European Union (EU) for establishing a Digital Product Passport (DPP) comes into play [1] [2]. The intension with the initiative is to ‘enhance transparency across product value chains by providing comprehensive information about each product’s origin, materials, environmental impact, and disposal recommendations’ [3]. This can facilitate end-to-end traceability of products in the value chains, help consumers make informed choices, support the availability of relevant information for companies repairing and/or recycling products, and improve control mechanisms [4].

The Digital Product Passport does not in itself set minimum environmental requirements for products but will demand that data and information on products be provided, digitized, communicated and shared by the producers and other business entities so that down-stream producers and consumers can access and use this information for further processing. However, when data and information are openly available, it will facilitate possibilities for a greater degree of reuse, repair, recycling, etc. and thereby circularity and sustainability.

The circular economy (CE) concept has – as many other concepts – been subject to discussions and definitions, and as with many other concepts, there is not a finite definition that everyone will subscribe to. One of the most comprehensive reviews of the circular economy concept has been

performed by Kirchherr et al. [5], who have analyzed 221 definitions. They conclude that ‘the development of a “final” and consensus definition of CE is elusive’ and that ‘given the constantly shifting state of technology, environmental conditions, and economic and socio-political contexts, definitions of CE will likely be in a state of perpetual evolution’ [5]. This is certainly true and also applies to many other social science concepts and categories. However, in this paper, we will stay with the basic understanding of circular economy as put forward by, for instance, Geissdoerfer et al. [6] and used by Pieroni et al. [7], where circular economy is seen as a narrower concept than sustainability in the sense that sustainability comprises environmental as well as economic and social aspects, while circular economy mostly focuses on economic and environmental issues.

An important backdrop for the paper is how the EU initiatives regarding circularity in the economy respond to the challenges with respect to economic and environmental issues in the production and consumption of physical goods. Special emphasis is on the drivers and barriers of the regulatory interventions, meaning why is it that regulatory intervention is seen as necessary, and which are the barriers that limit this type of intervention.

The DPP initiative has two basic constituent elements: The system element, which includes the technical solutions and formats making it possible to share and communicate the DPP data, and the data itself, meaning the product data, which will be required by the DPP initiative. One could say that the system element answers the ‘how’ aspect and the data element the ‘what’ aspect. The system element is currently (2025) being standardized by a Joint Technical Committee (JTC) of the two European standardization bodies, CEN and CENELEC – JTC 24. This is, to a large extent, a technical activity but entails a great many industrial interests – as with other standardization activities. The data element is more directly political in the sense that it is concerned with the content of the data to be shared and communicated.

The present paper deals with the data element and the decision-making regarding the types of data that the DPPs for the different product categories will include. The paper only tangentially touches upon the system standardization element, which we have analyzed in another paper [8]. While the system standardization element is commissioned to the European standardization organizations and will result in European Norms, which have a voluntary status as long as the systems implemented by industry live up to the essential requirements from the EU, the data element will consist of mandatory minimum requirements and additional voluntary input regarding the content of the data to be provided by the producers.

The paper first has a description of the analytical framework of the paper. This is followed by a methodology section and a review of the EU governance in the areas of circular economy and sustainability for businesses including a sub-section presenting the upcoming data requirements for the DPPs and a sub-section on the organization of data storage including the role of service providers. In the analysis and discussion section, the drivers and barriers of the DPP arrangement are discussed, and the paper ends with a conclusion.

2. Analytical Framework

The questions addressed in this paper are concerned with problems regarding circularity in production, consumption and disposal of physical products that society is facing, the policy responses to these problems, and the drivers and barriers for these responses to be realized. The basic regulatory question is why policy intervention is called for: Why is it that the market forces of the economy are deemed not to be able to solve the issues regarding circularity without policy and regulatory support? This question, in itself, may be misleading, as it presupposes an economy without political or other social rules that may or may not be subject to political intervention. This has never been the case, as institutional political economy has established [9]. However, no matter how one wants to phrase the question, the combination of market forces and political intervention is at stake.

What may be rational, sensible and fair from a societal position – for instance saving on resources environmentally and economically and with a social balance – may not be rational, sensible and fair

seen from an individual company point of view. If there were a greater degree of circularity in the economy, there could certainly be material as well as economic resources saved. There is, however, a coordination problem leading to sub-optimization [10] [11]. With linear production, consumption and disposal, the individual links in the chain of production optimize within their individual domains, but this may not be optimal from the perspective of the entire chain. It could be that if the whole chain of production was managed by one entity, there would be a greater interest in optimizing the whole setting. However, the efficiencies of specialization entail a loss of coordination.

This points at a transaction cost perspective of research [12] but it is also a lack of interest from the individual company entities in seeing to the interests of society as such. Polluting the environment and creating social problems are externalities that the individual entities may not have an interest in addressing [13]. They need to be forced and/or supported, for instance by political intervention, to take such matters into account. This is exactly what sustainability policies and regulations aim at. In the case of DPP regulation, the regulatory intervention addresses the coordination problems by requiring that data on the products be provided, and it addresses the enforcement of such requirements, i.e. the coordination problems and the lack of interest of productive entities in dealing with the externality problems.

It is well-known that the three different aspects of sustainability - environmental, economic and social - do not always pull on the same rope. As, for instance, the example of the so-called yellow vests in France showed, a tax increase on fuel prices led to a country-wide protest in 2018 and the following years. Part of the ambition of the tax increase was to lower the consumption of fuel and, thereby, CO₂ emissions. But in the French countryside, driving your automobile is often a necessity for going about your daily business and work. The social aspects of sustainability were not in accordance with the environmental aspects.

Similar conflicts can be found with respect to circular economy. In some cases, it may be that material circularity not only benefits the use of material but also saves on costs. But it may also be that it is more costly to re-use material than it is to use new material. And, even if it is less costly to re-use material in terms of the costs of the material itself, the chains of production are not set to facilitate re-use and, therefore, increase the coordination costs.

The framework for analysis in the paper builds on these different inputs: The coordination problem, the externality issue, and the fact that the different aspects of sustainability often do not pull in the same direction. This is part of the setting for regulatory interventions and the drivers and barriers for such interventions.

Another part relates to whether regulatory measures, setting minimum requirements for business activities, create platforms that constitute positive inputs to business development, or whether such regulatory measures simply are obstacles. The general EU approach has for some years been that minimum requirements of different kinds should not only be seen as obstacles but that they also constitute platforms for new developments of a higher standard. A much-heralded example is the GDPR (General Data Protection Regulation). Another example could be the EU Artificial Intelligence Act, and the CSRD and the CSDDD (Corporate Sustainability Reporting Directive and Corporate Sustainability Due Diligence Directive – see presentation below) are other examples to the same fact.

The general US approach has been far more reluctant to impose such kinds of regulations. And lately, with the Trump administration in the US, regulatory measures in many areas have and will be disbanded. Trends tending in the same direction have been seen lately in the EU as well. The problem is the international industrial competition with the US and China, where the EU allegedly should start prioritizing investments and innovation more than regulation. The Draghi report [14] can be seen in this light, and with the Omnibus Proposal of February 2025 [15], the European Commission has embarked on a reduction of ‘administrative burdens’ on companies, which will affect the CSRD as well as the CSDDD and other pieces of regulation, which are considered as a burden on companies. Whether this could affect the development of DPPs is discussed in the analysis section of the paper.

3. Methodology

The methodology is based on documentary analysis and interviews with stakeholders involved in and/or affected by the upcoming DPP data requirements. The documentary analysis includes primarily the ESPR itself and its Annexes [16] [17]. It also includes summaries and explanations by the EU [18] and by, for instance, the CIRPASS project [19], which was a significant EU research project on the DPP initiative. The Interviews have been conducted with business organizations (Confederation of Danish Industry and Danish Chamber of Commerce), public agencies (Danish Business Authority and Agency for Digital Government), the European Commission and with The Danish Consumer Council (The interviewees are not responsible for our interpretation of their statements).

The Confederation of Danish Industry is the largest general industry association in Denmark, while the Danish Chamber of Commerce is the other general business association with a primary focus on commerce. The Danish Business Authority is the agency of the Ministry of Business, and the Agency for Digital Government is the government agency with responsibilities within public digitalization initiatives. In the European Commission, there is a Digital Product Passport Team, and the Consumer Council has been working with advancing consumer views on the development of DPPs.

Questions addressed to and discussed with the interviewees were concerned with the factual developments of DPP data requirements and with the views of the interviewees on the progress of the ESPR in general. More specifically, the regulatory agencies gave information on EU sustainability and circularity policies, and the business organizations reported on their views on how the ESPR and the DPP are being received among their members. The European Commission provided information on the progress of the ESPR and the DPP initiative and on how this initiative is seen to have been received by those affected, and The Danish Consumer Council shared its views on the consumer aspects of DPP.

The fact that most of the interviewees are Danish is not assessed to be an issue that sidetracks the observations made. It is true that digitalization of business and other social processes has generally come further in the Nordic countries than in many other regions of Europe and that there may thus be a greater positive inclination towards implementing digital solutions. However, in essence there are no likely substantial differences around Europe between the positions of national business associations, consumer organizations and public authorities within digitalization with respect to the development of DPP. The paper does not report systematically on the interviews conducted but refers to statements made when relevant. Interviews are mainly used for background information.

The analytical framework of the paper is used to structure the analysis of the drivers and barriers for the implementation of the data requirements of the Digital Product Passport. The main parameters are the coordination costs of increased circularity and externalities associated with productive activities.

4. EU Sustainability and Circular Economy Governance

As is explained in a paper by Domenech and Bahn-Walkowiak [20] entitled 'Transition towards a resource efficient circular economy in Europe: Policy lessons from the EU and the Member States', protection of the environment has been inscribed in the European Union treaties since the 1980s and sustainable development is referred to in the Lisbon Treaty (TEU and TFEU – Treaty of the European Union and Treaty of the Functioning of the European Union) from 2009 as one of the objectives of the EU. The TFEU includes the principle of 'prudent and rational utilization of resources' and provides a legal background for EU governance in the field of sustainable development of circular economy [20].

4.1. Current EU Governance

Three of the main pillars of the EU sustainability and circular economy policy for businesses and other organizations are concerned with ecodesign, sustainability due diligence and reporting, and planning of circular economy actions. All three pillars have consecutively been developed over the last 15+ years. With the EU Green Deal of 2020, the pillars of the EU sustainability and circular economy policies have been placed on a common platform.

In 2009, the first ecodesign Directive was adopted by the European Parliament and Council. The Directive established 'the framework for the setting of ecodesign requirements for energy-related products' (Directive 2009/125/EC). The Directive was thus only aimed at 'energy-related products' and, therefore, had a limited scope. With the Ecodesign for Sustainable Products Regulation (ESPR) that entered into force in July 2024, the scope of the Regulation reaches 'virtually all physical products', as it is phrased by European Commission with only few exemptions such as food and medicinal products. Furthermore, the ecodesign requirements are reinforced with the aim of enhancing sustainability and circularity. The ESPR is the regulation which includes the provisions for the Digital Product Passport (DPP).

In 2014, the European Parliament and Council enacted Directive 2014/95/EU regarding the disclosure of non-financial and diversity information 'by certain large undertakings and groups'. In January 2023, The Corporate Sustainability Reporting Directive (CSRD) entered into force. This Directive enlarges the scope in terms of the kinds of organizations and companies subject to the legislation and the types of reporting requirements, which were part of the 2014 Directive and other pieces of legislation on sustainability reporting. The aim of the CSRD is to ensure reporting on environmental and social risks associated with the activities of the affected companies and organizations. It thus deals with environmental and social aspects of sustainability and not with circularity. Moreover, as with the Digital Product Passport, the CSRD does not in itself set standards for minimum environmental and social requirements. It is concerned with requirements and standards regarding reporting. However, the CSRD is a 'back-to-back' Directive with the Corporate Sustainability Due Diligence Directive (CSDDD), as the CSDDD aims at ensuring that businesses take responsibility for their activities impacting human rights and environmental issues.

In 2015, The European Commission adopted its first circular economy action plan. The aim of the action plan, which included 54 actions, was to enhance the efforts towards a greater environmental and economic sustainability and circularity. In 2019, the achievements were assessed, and it was concluded that the 54 actions had been delivered, even if some of the actions would continue after 2019. In 2020, the current Circular Economy Action Plan (CEAP) was adopted by the European Commission. The Communication from the Commission (COM(2020) 98 final) includes 35 actions, and the sub-headings of the Communication indicate the approach and priorities. The aims are to strengthen the design of sustainable products, to empower consumers and public buyers, and to enhance circularity in production processes. The key product value chains concerned are: Electronics and IT, batteries and vehicles, packaging, plastics, textiles, construction and buildings, and food, water and nutrients (COM(2020) 98 final).

The European Green Deal, which was adopted by the European Commission by end-2019 (COM(2019) 640 final) and received support from the Council and the Parliament in 2020 is the broad foundation for all EU policies regarding sustainable development environmentally, but also economically and socially. As is stated in the Green Deal Communication from the Commission: 'The Green Deal is an integral part of this Commission's strategy to implement the United Nation's 2030 Agenda and the sustainable development goals' (COM(2019) 640 final). The Green Deal is a 360 degrees policy statement on the ambitions of the EU with respect to sustainable development.

4.2. ESPR

In addition to broadening the scope of the 2009 ecodesign Directive in terms of products and requirements, the 2024 Ecodesign for Sustainable Products Regulation (ESPR) includes 3 new areas of regulation: It 'establishes a digital product passport, provides for the setting of mandatory green

public procurement requirements and creates a framework to prevent unsold consumer products from being destroyed' (ESPR, Article 1). As summarized by Circularise [20], the ESPR comprises 5 key action areas for circular and sustainable products: Ecodesign requirements, DPP, prevention of destruction of unsold consumer products, promotion of sustainable business models, and green public procurement.

The provisions regarding DPP are found in Chapter 3, Articles 9-15 of the ESPR. The headings of the Articles are: Digital Product Passport, Requirements for the Digital Product Passport, Technical design and operation of the Digital Product Passport, Unique identifiers, Digital Product Passport registry, Web portal for data in the Digital Product Passport, and Customs control relating to the Digital Product Passport. The provisions in the ESPR thus focus on *how* the DPP data is to be provided. The specific performance requirements for the various product categories are to be delivered in delegated acts – adopted by the European Commission – or possibly in standalone acts.

Article 5 of the ESPR lists the ecodesign requirements that aim at improving the product aspects where relevant for the different product categories. The list of ecodesign requirements includes 16 product aspects focusing on circularity and on reducing the use of materials. In the delegated acts that will follow the ESPR, the specific ecodesign requirements for the different product categories will be specified. Delegated acts will also specify the product information that needs to be included in the DPPs for the different product categories.

Almost all physical product categories that are 'placed on the market or put into service including components and intermediate products' (ESPR, Article 1) are subject to the rules of the ESPR. There are, however, a few exemptions: food, feed, medicinal products, living organisms, products of human origin, and certain vehicles that are already subject to specific product regulations.

The ESPR performance and information requirements apply to product manufacturers as well as importers, distributors, dealers and service providers. It is not only the product manufacturers who produce within the EU that are affected. The rules apply to all products that are placed on the EU market including imported products. As it is acknowledged that smaller companies may have difficulties in implementing the rules of the ESPR, the European Commission will ensure that also small and medium-sized enterprises will be able to comply with the ESPR.

Not all product categories will have to comply with the ESPR at the same time. The product areas, that will first have to comply, are: Iron and steel, aluminum, textiles, furniture, tires, detergents, paints, lubricants, chemicals, energy related products, and ICT products and other electronics [21].

In the following two sub-sections, we look at the kinds of data that the DPPs will include and how they are going to be stored and made accessible.

4.3. DPP Data

The kinds of data to be included in the DPPs for the different product categories are listed in Article 7 of the ESPR and Annex III to the ESPR and will be finally determined by the delegated acts that the Commission is entitled to issue pursuant to the ESPR. In addition to the ESPR, the data specified in the delegated acts will also be based on other policy and regulatory decisions such as the abovementioned Green Deal, the Corporate Sustainability Due Diligence Directive (CSDDD) and the Corporate Sustainability Reporting Directive (CSRD). Furthermore, the different production sectors can voluntarily add additional kinds of data to be included in the DPPs.

The information requirements for DPPs regarding substance are listed in Article 7 of the ESPR. In Paragraph 7.2(b), it is stated that the information requirements shall, 'as appropriate', require products to be accompanied by:

- (i) 'Information on the performance of the product in relation to ... a repairability score, a durability score, a carbon footprint or an environmental footprint;
- (ii) Information for customers and other actors on how to install, use, maintain and repair the product, ... on how to install third-party operating systems where relevant, as well as on

collection for refurbishment or remanufacture, and on how to return or handle the product at end-of-life;

- (iii) Information for treatment facilities on disassembly, reuse, refurbishment, recycling, or disposal at end-of-life;
- (iv) Other information that could influence sustainable product choices for customers and the way the product is handled by parties other than the manufacturer in order to facilitate appropriate use, value-retaining operations and correct treatment at end-of-life' (ESPR, Paragraph 7.2(b).

The information requirements regarding traceability and other additional issues are listed in Annex III and Article 7.2(a). There are 11 requirements in Annex III making traceability and knowledge on the 'whereabouts' of the products possible.

All in all, the information requirements relating to the performance requirements and the traceability of products are extensive.

4.4. Data Storage

An important discussion regarding DPPs has been whether the product data shall be stored centrally or de-centrally – meaning whether product data shall be stored in a central database or databases or whether product data shall be stored de-centrally by the individual businesses or service providers servicing the individual businesses. The decision is that product data will be stored de-centrally. However, in order to be able to find the product data, 'the Commission shall set up a digital registry (the 'registry') which stores in a secure manner at least the unique identifiers' (ESPR, Article 13). These 'unique identifiers' are unique strings of characters that will enable the identification of products.

With the decision that product data shall be stored de-centrally, it may be that large companies will store their own product data. However, for other companies including smaller companies, this may be a task that they will prefer to leave to dedicated service providers. The legal framework for such service providers is to be set by a delegated act specifying the requirements for DPP service providers including certification for compliance verification. The DPP service providers will thus play an important role in constructing a DPP structure and constitute new business opportunities for service providers.

5. Analysis and Discussion

As is mentioned in the introduction of the paper, the DPP issue can be seen as comprising two overall aspects: The *how* question regarding the system that will enable the storage, communication and sharing of data, which is the topic for standardization, and the *what* question regarding the data itself, which pertains to the information regarding sustainability, circularity and traceability. In the paper, we concentrate on the data issue.

The DPP issue, in itself, has until now received relatively little public attention. This applies both to the individual businesses and most certainly to the general public. However, business associations have obviously engaged themselves in following and impacting the development of the DPP idea, and business consultancies are active in informing potential clients about the upcoming DPP requirements. Most emphasis has until now been on the system standardization issue, but as the actual DPPs are approaching, there will be increasingly more attention to the data included in the DPPs and what this means for companies and end-users.

The question is how the EU DPP initiative (and more broadly speaking the EU sustainability and circularity policies) responds to the problems created by linear production and consumption models and the lack of circularity in the economy. The question is also what the drivers and barriers are for the implementation of such regulation.

It has long been recognized that linear forms of production, consumption and disposal have dire environmental implications in terms of pollution and waste and that there would also be economic savings on material use if there was a greater degree of circularity in the economy. However,

changing this type of economy is very difficult because of the coordination problems and costs and the fact that pollution and waste are seen as externalities to the individual producers. Also, the ambition to unite sustainability goals relating to environmental, as well as social and economic development entails contrasting interests.

The EU policy and regulatory initiatives regarding sustainability and circularity do, indeed, include responses to such problems. The ESPR, for instance, includes not only requirements on sustainable and circular production processes; it also includes informational requirements that can facilitate a greater degree of circularity as it supports the coordination of circularity with detailed information on products. This is obviously the most important driver for implementing the ESPR and its multi-sided requirements. However, the problem – as seen from the industry side – is whether the economic costs are too heavy. This clearly applies to the performance requirements regarding sustainability and circularity. But it also applies to the costs and difficulties of and maybe even hesitant willingness to assemble, provide, digitize, reveal and publish information on products. This is an issue that lately has become acute with the CSDDD and the CSRD, and it could also be an issue with the DPP when this becomes more widely well-known.

In early 2024, the CIRPASS project published 'A study on DPP costs and benefits for SMEs' [22] (CIRPASS, 2024), which listed and discussed the challenges that SMEs will face with respect to the DPP initiative in terms of regulation and financial, organizational, technical and standardization issues. Indeed, the potential difficulties for SMEs are acknowledged by the EU and mitigating initiatives are mentioned in Article 22 of the ESPR. According to Article 22, there will be supporting measures for SMEs from the European Commission as well as the Member States. However, there are no exemptions mentioned.

Nevertheless, when asking representatives of business associations about the drivers for implementing DPPs, the common answers are that they are in favor of sustainability improvements, but also that a common DPP arrangement will make it more straightforward to live up to the many already existing and varied requirements regarding performance and reporting. Furthermore, one could mention more trust among business partners and from end-users and improved supply chain management. It is also important that common EU legislation regarding sustainability and circularity requirements will create an improved level playing field for competition in the EU - which is the common EU argument for many different kinds of interventions. Finally, a possibly improved competitive position internationally can also be an argument – if assumed that other regions of the world will have to follow suit. Not only because of the extraterritorial character of the ESPR including the DPP, but also because other regions may eventually be inspired by the EU initiative.

On the driving side are also the consumer associations and the green NGOs. However, neither of these organizations have a great influence on the upcoming DPPs. Consumer associations are aware of the potential importance of DDPs and how these can improve the levels of information of consumers and the buying patterns of consumers and their role in increasing circularity. However, DPPs are not yet an issue that consumers in general are aware of. The views of consumer associations concentrate on DPPs including consumer relevant information, information being physically provided on the products not just as QR codes, and the requirement that DPPs do not reverse the responsibility for product performance from producers to consumers. With respect to green organizations, there is a clear support for the idea of DPPs. But compared to the importance of the views of businesses and business organizations, there is a long way.

On the EU policy side, there is currently a development that potentially could run counter to the implementation of DPPs. With the Draghi report and the Competitiveness Compass, there is increasing attention to investments and business innovativeness and less on sustainability. The two priorities are not necessarily in opposition. For many years, sustainability requirements have been seen not to be in contradiction to investments and innovativeness, but to potentially constitute a platform for new kinds of investment and innovation. However lately, a growing trend has been to see a contradiction between sustainability initiatives and economic development, investments and innovation. This has been ignited by the geo-economic competition between Europe and the US and

China, and with entry of the new Trump administration in the US and its deregulatory policies, there will be increasing pressure on sustainability policies.

With the Omnibus proposal from February 2025 and the pursuant regulations regarding the postponement and limitations of the scopes of the CSRD and the CSDDD, the question could be whether this will not also affect the implementation of the ESPR and the DPP. There is, however, a difference between CSRD/CSDDD and the DPP. CSRD/CSDDD is concerned with sustainability requirements and reporting, while DPP in addition offers potentials for new business possibilities with circularity and does not demand reporting. It should be mentioned that the ESPR including the DPP requirements is not part of the Omnibus proposal, and according to the interview conducted with European Commission staff, an Omnibus decision regarding ESPR is not on the agenda.

6. Conclusion

The dominant modes of production and business models are linear with extensive problems regarding pollution and waste and with a lack of circularity of products and materials being re-used. The ESPR including the DPP, along with other EU political initiatives regarding sustainability and circularity, is an important measure to help increase circularity in the economy.

The good arguments for the ESPR are 'queuing up', as the ESPR can help reduce waste and pollution, harmonize requirements on performance and reporting, increase trust among business partners and end-users, promote a level playing field for businesses in Europe, and potentially position European industries in the international competition. Also, the ESPR is a response to the coordination problems regarding circularity and the externality problems that individual industries encounter in their activities.

From industry side, there are, however, also counter interests and arguments. The performance and information requirements can be seen as a burden on businesses, and especially the small and medium-sized enterprises have expressed concerns to that effect. Among the more practical issues are that the DPP data requirements that will be determined will have to be in line and in accordance with many other existing performance and reporting requirements. There will also be an effort with setting up service providers that will store the DPP data.

However, the big question has to do with the 'turning tide' regarding requirements on industries that has the potential to become new platforms for development but also can be seen as burdens on the operations of businesses. Until now, the lowering and postponement of requirements has affected the implementation of the CSRD and the CSDDD, and the ESPR is not implicated. However, there is also the extra-territorialism of the ESPR, which will affect all imported products from non-EU countries. With the current international trade circumstances taken into consideration, this can create additional issues.

Interviews conducted:

- Confederation of Danish Industries
- Danish Chamber of Commerce
- Danish Business Authority
- Agency for Digital Government
- Danish Consumer Council
- European Commission Digital Product Passport Team

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