



The EU's Digital Product Passport – where it stands as of January 2023 and Circthread partners' views on where it should go

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Agenda

1. Introduction

1. **Objectives of workshop** -- opportunity for open discussion to share knowledge, insights and opinions on various aspects of the DPP to identify key areas of action related to the policy developments.
2. **Overview of work being conducted in WP9, and the role of T9.6.** in suggesting recommendations to policymakers based on Circthread partners' insights on how the DPP should be designed

2. Presentation: DPP overview as of January 2023

3. Interactive session including Q&A

Context



The EU's view

Digitalisation and DPPs are a key instrument for providing information on a product's origin, durability, composition, reuse, repair and dismantling possibilities, as well as end-of-life handling



EU's Eco-design for Sustainable Products Regulation (ESPR)

Published in March 2022 it puts forth the introduction of DPPs as "a set of data specific to a product that includes a set of information to be determined & is accessible via electronic means through a data carrier."



The use of DPPs

Aim to gather data on a product & its supply chain and share it across entire value chain so all actors, including consumers, have a better understanding of the materials & products used & their embodied environmental impact

Context

The EU Digital Product Passport (DPP)



WHAT

*A structured collection of product related data with predefined scope and agreed data ownership and access rights conveyed through an **unique identifier***

HOW

***Decentralised** system with a central registry*

SCOPE

Information related to sustainability, circularity, value retention for re-use/remanufacturing/recycling



Expected benefits

The implementation of digital product passports in these value chains is expected to support:

- **Sustainable product production**

To enable the transition to circular economy & boost material and energy efficiency, extend product lifetimes, and optimise product use.

- **Provide businesses with standardised relevant technical & sustainability-related information about products/components along the value chain**

*to facilitate **value-retaining** operations of the circular economy such as use-optimisation, sharing, develop services maintenance, reuse, repair, refurbishment, recovery of components and materials.*

- **Provide consumers with information**

*on product care information, repairability, durability, upgradability and end-of-life instructions. Along with information about the **sustainability and circularity of the products/components** placed on the EU market.*

- **From a regulatory perspective**

*support market surveillance **authorities** in carrying out their tasks for the enforcement of sustainability standards; provide the Commission and national authorities with up-to-date information when reviewing legislations and proposing new ones for products.*

Expected benefits

Ilias Iakovidis – Advisor for societal challenges & green and digital transitions DG CNECT, European Commission

*“The north star of the DPP is about addressing the **sustainability** of the product – addressing social, individual, consumer needs with less resources, and helping to change the business model towards circularity. “*

Which products will it apply to?

- The DPP will apply to all products regulated under the ESPR, (only a few sectors such as food, feed and medicinal products are exempt)
- The ESPR shall apply to any other physical good, including components and intermediates products placed on the EU market or put into service. This definition includes products manufactured in Europe and **imported** into the EU, therefore **impacting global trade**.
- The ESPR acts as the overarching policy framework and will be **supported by delegated acts that will determine specific rules as well as the elaboration of the different DPPs for specific products**.
- The products to be covered will be laid out in the European Commission's **three-year working plans and depend on additional analyses and consultations with the relevant stakeholders**.
- Products will only be able to be placed on the market or put into service if a product passport is available in accordance with the applicable delegated act.

Timeline- 'realistically'

Michele Galatola, Senior policy officer Chair of the Commission cross-DG Working Group on DPP:

Three different timelines that overlap with another:

1. **Trilogue discussions** to agree on common text, to take most of 2023, hopefully by the end of 2023/early 2024 the proposal can be adopted.
2. Timeline of **the DPP 'system'** itself, to be operational will wait on the standards being developed.
3. Start working on the **Delegated Acts** (product group related legislation), but first to identify which ones will work on initially, "will have 2, 3 maybe 4 product groups each year that will be regulated – along with an open consultation process, impact assessment, etc. "

The first delegated acts are expected to be adopted by 2024. 30 new delegated acts are expected to be developed by 2030.

In the most optimistic scenario, DPP roll out around hopefully 2026/2027.

- As an illustration of timelines, the trilogue on the battery regulation was finished in December 2022, and the batteries DPP will be operational in early 2027.

ESPR Digital Product Passport (DPP)

There are 3 'milestones' introduced ahead of the full operationalisation of the DPP:

1. Regulation: Introduction of the DPP **concept**, description of the **scope**, identification of some **key features**.
2. Identification of **essential technical requirements** to be developed through standardisation process. A safety clause is introduced in case of delays or if the quality of the standards is not 'fit for purpose'. In such case the Commission shall adopt **common specifications** with the technical requirements needed.
3. Delegated acts: Identification of the **specific information** to be included in the DPP for each product or product group.

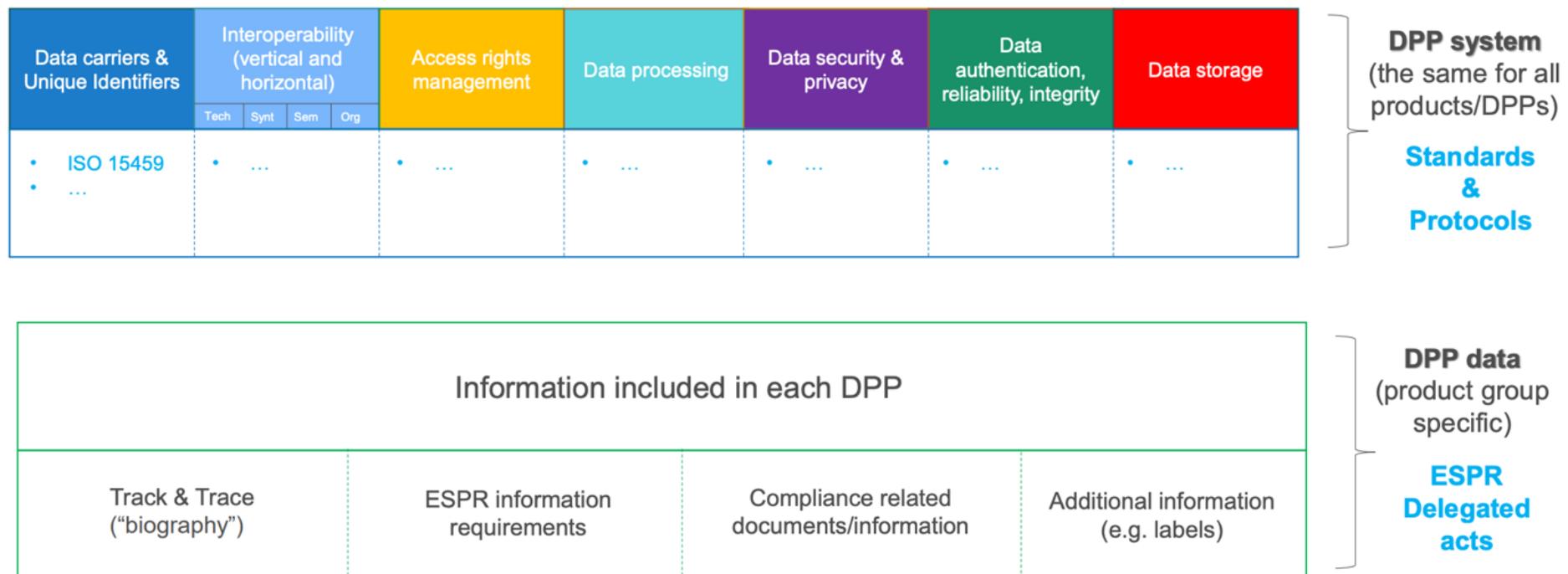
DPP mandatory for all products for which there is a delegated act



Two elements to the policy development of the DPP

- DPP data: What information will it contain?
- DPP system: What will the system look like?

The DPP in a snapshot



Two elements to the policy development of the DPP

DPP design



- All **standards** and **protocols** related to the IT architecture, like standards on:
 - Data carriers and unique identifiers
 - Access rights management
 - Interoperability (technical, semantic, organisation), including data exchange protocols and formats
 - Data storage
 - Data processing (introduction, modification, update)
 - Data authentication, reliability, and integrity
 - Data security and privacy
- The DPP registry

Possible Track & Trace identifiers

- Economic operator's name, registered trade name
- Global Trade Identification Number or equivalent
- TARIC code
- Global location number
- Authorised representative
- Reference of the back-up data repository
- ...

Example of potential attributes

- Description of the material, component, or product
- Recycled content
- Substances of concern
- Environmental footprint profile
- Classes of performance
- Technical parameters
- ...



What information will be included in the DPP?

- Data requirements for digital product passports are still being determined and will be set for each individual product category based upon a process of industry-wide stakeholder consultation.
- Creating the passport will call for the whole supply chain to cooperate and define the crucial information that could prevent a product from going to waste. Information expected to be included could include information on **product performance, traceability, technical documentation, harmful chemicals, user manuals, information about the manufacturer, importer or authorised representative etc.**
- The Commission has been clear that information will vary depending on product group and that this will be decided in each delegated act. In terms of harmonisation between product groups, what will likely be the same is methodology, measurements, standards used for different product groups (**e.g. carbon footprint methodology would likely not be different for different product groups**).
- The delegated acts will specify whether DPPs for different product groups will be for product model, batch, or item level.

Delegated Acts

- **Delegated Acts** for the different product groups and their related DPPs will be designed, and will specify requirements regarding:
 - a) the information to be included in the product passport pursuant to Annex III;
 - b) the types of data carrier to be used;
 - c) the layout in which the data carrier shall be presented and its positioning;
 - d) whether the product passport is to correspond to the model, batch, or item level;
 - e) the manner in which the product passport shall be made accessible to customers before they are bound by a sales contract, including in case of distance selling;
 - f) the actors that shall have access to information in the product passport and to what information they shall have access, including customers, end-users, manufacturers, importers and distributors, dealers, repairers, remanufacturers, recyclers, competent national authorities, public interest organisations and the Commission, or any organisation acting on their behalf;
 - g) the actors that may introduce or update the information in the product passport, including where needed the creation of a new product passport, and what information they may introduce or update, including manufacturers, repairers, maintenance professionals, remanufacturers, recyclers, competent national authorities, and the Commission, or any organisation acting on their behalf;
 - h) the period for which the product passport shall remain available.

How will it work? – system architecture

Article 10 in the Regulation lists the essential requirements that will represent the basis of a standardisation mandate that is being drafted which relies on the work of the European standardisation organisations.

Ilias Iakovidis – Advisor for societal challenges & green and digital transitions DG CNECT, European Commission:

“We will need to standardise the DPP system, which will have to handle all the different product passports from the different product categories. A standardised system is needed because anything that deals with identification, access, management, security, authentication etc. has to be harmonised across all product categories.”

- DG Connect will introduce a pilot at the end of 2023, through a call for proposals, where they will test and grant a consortium to try a DPP ‘live’ (part of Digital Europe Program).

How will it work? – system architecture

DPP key principles and features

- **No proprietary solutions:** All information included in the product passport shall be written in an **open, standard, inter-operable format** and shall be machine-readable, structured, and searchable, in accordance with the essential requirements included in Article 9. The standards to be used shall be adopted at international (ISO) or European (CEN/CENELEC/ETSI) level
- **Identifiers** should be unique, specific to a product (including intermediates), and they should be persistent (the info should remain available even if the company change name, web address, goes bankrupt, etc).
- **Granularity:** The information included in the product passport shall refer to the product **model** (e.g. iPhone 13), **batch** (e.g. iPhone 13, produced in factory XYZ), or **item** (e.g. iPhone 13, serial number 123456789) as specified in the applicable delegated act referred to in Article 5(1).
- **Access rights ('need-to-know')**: the access to information included in the passport shall be regulated in accordance with the essential requirements included in Article 9. The specific access rights at product group level will be identified in the applicable delegated act referred to in Article 5(1).
- **Responsibility:** The **economic operator** placing the product on the market is responsible for making available the EU DPP and for the information included therein.



How will it work? – system architecture

Protecting proprietary information:

The Proposal repeatedly acknowledges the importance of protecting proprietary information. William Neale, *“When it comes to intellectual property, privacy, and so on, we need to make sure that those are dealt with either through encryption or through making data available at a later date. In each case, this will be done product by product and in full consultation,”* also adding: *“We’re talking about a decentralised or distributed approach to the data. It does not have to move from where it’s created”*.

Decentralisation ensures the owner of the product is also the owner of the digital record, rather than residing within the control of a central system where it could be tampered with.

The ESPR states “to improve enforcement of ecodesign requirements, it is necessary that national authorities and the Commission have direct access to a record of all data carriers and unique identifiers linked to products placed on the market or put in service.”

As such, the Commission shall set up and maintain a **product passport registry** storing information included in the product passports required by delegated acts. The registry shall at least include a list of the data carriers and unique product identifiers . The Commission shall ensure that the information stored in the registry is processed securely and in compliance with Union law, including applicable rules on the protection of personal data.

Trilogue discussions

Co-decision process underway by the European Parliament and the Council for the ESPR, and it is likely that positions will be adopted by both in the first half of 2023. Final agreement between the two institutions can then be reached in the second half of 2023.

- In the Council, the review and discussions of the proposal are being steered by the Competitiveness Council, a move seen as controversial by civil society groups. In the European Parliament the ENVI Committee is the lead Committee with input from the IMCO (Internal Market and Consumer Protection) and ITRE (Industry Research and Energy) Committees.
- Competitiveness Council has expressed concern that:
 - i) The ESPR's large number of delegating acts and its impact and compliance are dependent on the member states' supervisory role in the market; and entails a risk of an increased administrative burden for the companies affected by its application; and
 - ii) the proposal can entail companies within the EU finding it more difficult to compete in the international market. Overall, the Competitiveness Council considers that there is a need for further debate and negotiation of several parts of the proposal.
- In the **Council's** meeting in September 2022, they expressed the view that **the DPP needs careful design and must be cost effective as well as being proportional**. Privacy and confidentiality concerns were also raised.

In Parliament, the Rapporteur, Alessandra Moretti proposes to amendment within the ESPR to extend the scope of the regulation, to cover the **social sustainability** of products, as well as due diligence aspects along the value chain.

Challenges expressed by EU policy-makers

- Challenge of identifying **the right set of standards for the DPP architecture** – the fact that there are already so many activities and existing standards makes it a challenging to decide which ones to choose. Here need to keep the objectives of circularity and sustainability in mind, need to make sure it's interoperable both horizontally and vertically (across the supply chain).

“Our intention is to allow for the creation of multiple DPPs by service providers all in compliance with the set of standards that we will provide; then companies can tailor this and find their own choice that best suits them (as long as in compliance).” - Michele Galatola – Policy Officer EU COM.

- Challenge of **timing** - political pressure to deploy the DPP within the deadlines they have set.

Challenges expressed by EU policy-makers

- Challenge of **ensuring accuracy/quality of information** that will be included in the passport - “It can be the best functioning DPP but if the information is not reliable then it doesn’t deliver the goals.” Product specific legislation will have rules on how to verify each requirement (there will set out standards for measurement, data needed etc. and also what verification will need) - to be discussed with stakeholders when developing the legislation.
- For the first time in Europe, the DPP will be a **decentralised system** rather than the usual large centralised databases. There are some MS that are not yet convinced about this -- seeing some amendments being suggested in the Trilogue process as well that are trying to pull more in the direction of centralisation but this is still to be determined. But to the Commission keeping it decentralised is fundamental (doesn’t mean however automatically based on blockchain) with the information being stored by the economic manufacturers that produce the products - Michele Galatola – Policy Officer EU COM.

Way forward/what to expect?

William Neale, DG ENV:

- For businesses in terms of the Data and system architecture parts of the DPP legislation, not much that can yet be done until things are more clearly defined (which will be clearer once the delegated acts come through for each product group, as data could vary quite a bit from the different product groups – subject to impact assessment, consultation etc..) – essentially it is difficult to predict so far, but can already start engaging with supply chain.
- Businesses can still begin to prepare by starting to work on **increasing traceability and supply chain visibility**: starting to collect data with suppliers will allow for a head start when the delegated acts are published. Preparation should also include continuous monitoring and assessment of policy developments in this area and their impact on business activities.
- Businesses can also start to look at business opportunities (e.g textiles industry there are already companies using their own DPP-type systems and allowing for resell and take-back options leading to increased revenue so far for various companies).

Key DPP take-aways from the policy discussions

- The digital infrastructure and software for IT implementation of DPPs should be interoperable and compatible as far as possible with other systems and is to be based on standards.
- DPP could potentially 'small' to make it more feasible initially and then add further requirements if needed later on/assess the need to do so based on first pilots/first DPP roll out performance.
- All detailed data included in DPPs will be product group specific rather than a one-size-fits-all approach.
- A decentralised DPP approach to product information storage is favoured over a centralised approach.
- All information requirements for a DPP should contribute to increasing product circularity and EU sustainability goals.
- Mandatory product information in DPPs should balance different levels of data access and data protection needs.
- Lengthy political process and timeline before a DPP can be operational.



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your attention :)**



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