

# ¿Qué es el Pasaporte Digital Europeo (DPP)?

## ¿Cuáles son sus beneficios para los ciudadanos y las empresas?

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# 01

## Introducción y conceptos generales

## Qué es el Pasaporte Digital (DPP)

DPP (...) enable **sharing of key product related information** that are essential for products' sustainability and circularity (...) (Source: *European Commission*).

Digital product passports (DPP) aim to **gather data on a product and its supply chain** and **share it across entire value chains** so all actors, including consumers, have a better understanding of the materials and products they use and their embodied environmental impact (Source: *Circularise*).

A digital product passport dpp is a “**product-specific data set**,” which would structure the disclosure requirements of products. It can provide information on the origin, material composition, repair, and disassembly options of a product as well as how the various components can be recycled (Source: *Better Future Factory*).

The DPP is a tool to create transparency and unlock circularity proposed by the European Commission (EC) that will **share product information** across the entire value chain (...) (Source: *World Business Council For Sustainable Development*)

A Digital Product Passport (DPP) is a **structured collection of product related data** with pre- defined scope and **agreed data ownership and access rights conveyed** through a unique identifier and that is **accessible via electronic means through a data carrier** (Source: *Cirpass*).



## Para qué es el DPP

- (1) mejorar la **producción sostenible**
- (2) **extender la vida útil del producto y optimizar el uso del producto**
- (3) proporcionar **nuevas oportunidades comerciales** a los actores económicos a través de la **retención y extracción de valor circular**
- (4) ayudar a los **consumidores a tomar decisiones sostenibles**
- (5) facilitar la **transición a la economía circular** impulsando la eficiencia de materiales y energía
- (6) ayudar a las **autoridades para verificar el cumplimiento**



## Beneficios

- Obtener **ventaja competitiva**
- Introducir **modelos de negocio circulares**
- Convertirse en **un líder/referente en sostenibilidad**
- **Utilizar el cumplimiento legislativo** como valor empresarial



# Beneficios

 <p><b>Influence regulation</b></p>	<ul style="list-style-type: none"> <li>• Provide corporate perspective and shape policy discussions, particularly on currently uncertain elements in DPP regulation</li> <li>• Reduce risk of unexpected and undesired outcomes that can adversely impact business and operations</li> </ul>
 <p><b>Improve compliance &amp; resilience</b></p>	<ul style="list-style-type: none"> <li>• Anticipate and flexibly adapt to changes in regulatory requirements allowing to prepare early and ensure compliance</li> <li>• Manage risks related to supply shocks and price volatilities for scarce resources due to higher data-enabled transparency on critical raw material use and product design</li> </ul>
 <p><b>Unlock investment synergies</b></p>	<ul style="list-style-type: none"> <li>• Optimize resource and budget allocation to avoid sunk costs from misaligned ESG-related investment decisions, e.g.,             <ul style="list-style-type: none"> <li>– Avoid future IT costs, duplication in data collection efforts, and extensive process redesign by anticipating DPP requirements in tech and data infrastructure and investment</li> </ul> </li> </ul>
 <p><b>Increase transparency</b></p>	<ul style="list-style-type: none"> <li>• Leverage DPP data and increased VC collaboration to inform life cycle assessments</li> <li>• Empower environmentally-conscious decision-making by providing data insight (e.g., design)</li> <li>• Unlock data-driven efficiency improvements in operations and across entire VC (e.g., calibrate and optimize procurement processes to DPP requirements and broader ESG reporting)</li> </ul>

Source: WBCSD, 2023

# A quién va dirigido

**Ciudadanos → B2C**

*Proporcionar información para elegir mejor*

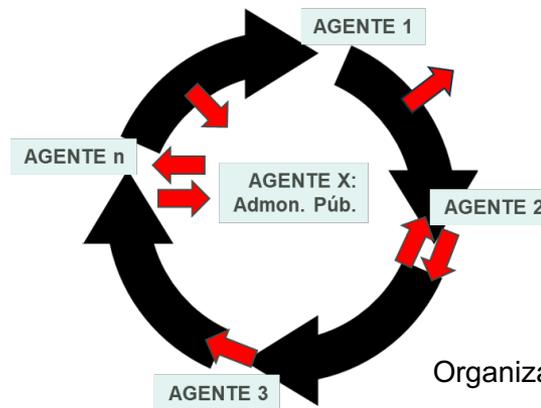
**We applied design thinking to a User journey**



Source: J. Rodrigues Frade , DG GROW, 2023

**Empresas → B2B**

*Compartir información para generar  
CONFIANZA entre agentes*



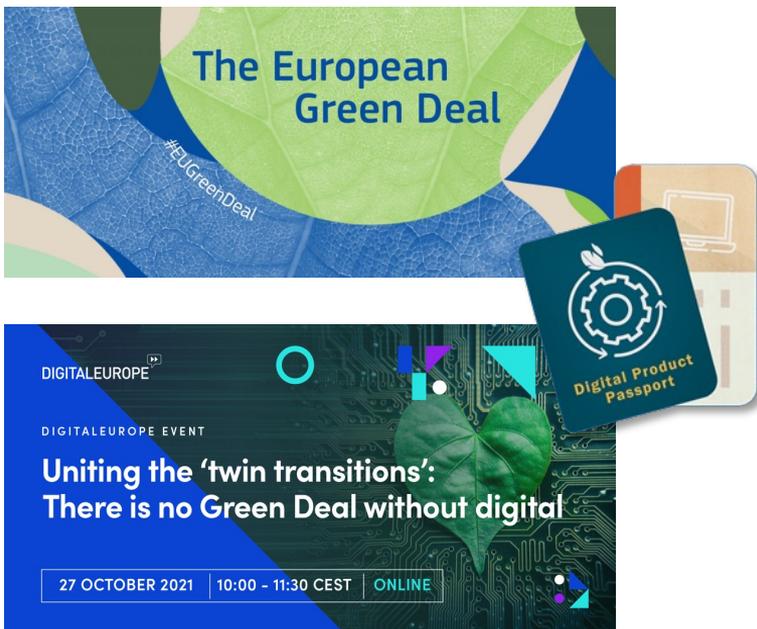
- Productores
- Importadores
- Distribuidores
- Recicladores
- Reparadores
- Remanufacturador
- Autoridades nacionales competentes
- Comisión Europea
- Organizaciones de interés público

...

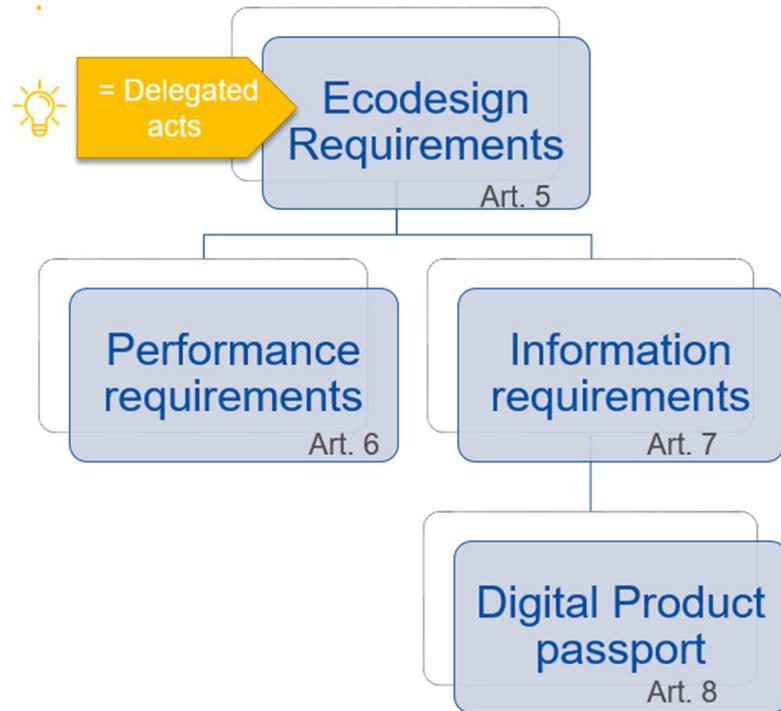
# 02

## Contexto

# Marco Regulatorio



## Ecodesign for Sustainable Products Regulation



## Ejemplo: “Ecosistema” regulatorio de Productos de Construcción



*Construction Products Europe,  
enlarged by Tecnalia*

## Iniciativas relacionadas con DPP



REINFORCE

Etc.



ECOSYSTEMX



CALL FOR PROPOSALS | Open

### Digital Product Passport

PAGE CONTENTS

Details

Details

Status

OPEN

Description

Reference

DIGITAL-2023-CLOUD-DATA-04-DIGIPASS

Publication date

02 May 2023 in <https://europa.eu/vyMb68> >

Opening date

11 May 2023

## Productos priorizados y fechas

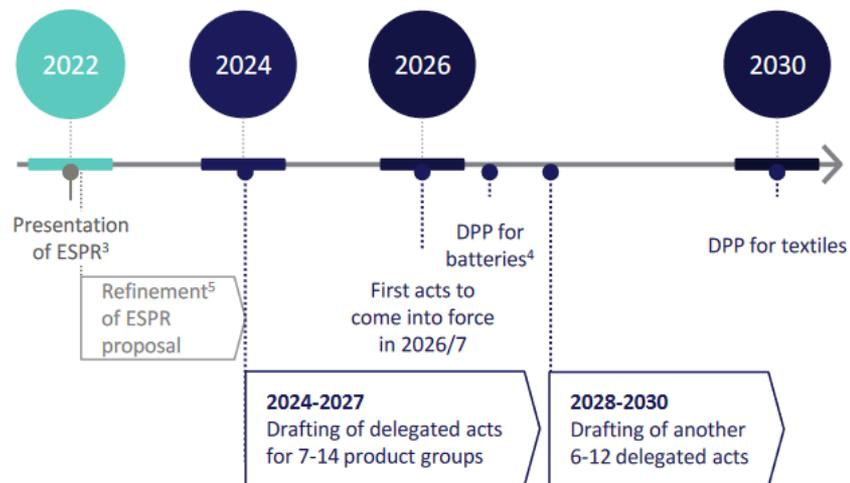
Tres cadenas de valor: **Electronica, Baterías y Textil**

- Para baterías entrará en vigor en 2026.



En breve otros sectores: **Construcción, Plásticos, Químico, Automoción, Residuos electrónicos...**

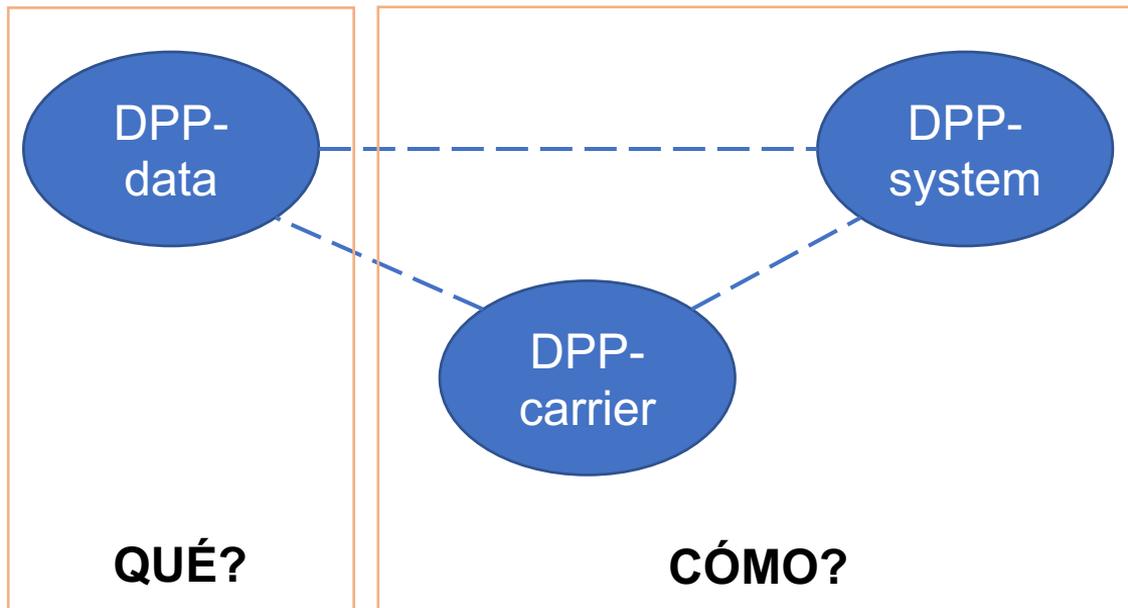
... pero también, **envase/embalaje, mobiliario y todos aquellos incluidos en el CEAP.**



# 03

## Diseño del Pasaporte Digital

## Componentes del DPP



- Circular Digital Platforms
- Smart supply chains
- ...

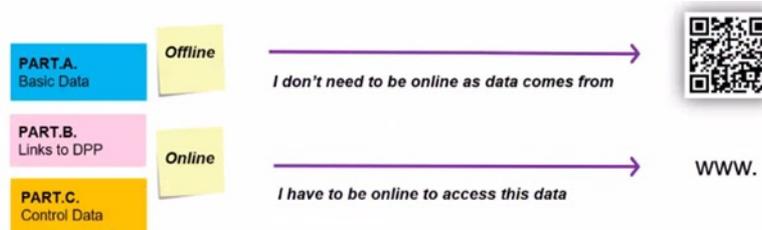
## DPP-data

### Atributos que definen el DPP

- Específico de cada sector/producto
- Múltiples características
  - ✓ durabilidad y fiabilidad,
  - ✓ reutilización,
  - ✓ *upgradability*,
  - ✓ reparabilidad,
  - ✓ posibilidad de mantenimiento y reforma,
  - ✓ presencia de sustancias peligrosas,
  - ✓ eficiencia energética y de recursos,
  - ✓ contenido de material reciclado,
  - ✓ posibilidad de remanufactura y reciclaje,
  - ✓ posibilidad de recuperación de materiales
  - ✓ impactos ambientales (incl. huella de carbono)
  - ✓ generación esperada de residuos
  - ✓ ...
- Diferentes niveles de acceso
- Diferentes modos de compartición de datos
  - ✓ Off-line
  - ✓ On-line

Unique product identifier Unique economic operator Identifier Unique facility identifier Additional data for automatic checks by customs authorities
Circularity data accessible to consumers Circularity data accessible to other end-users (e.g. recyclers) Circularity data accessible to authorities
Sustainability data accessible to consumers Sustainability data accessible to other end-users (e.g. recyclers) Sustainability data accessible to authorities
Other product-related data accessible to consumers Other product-related data accessible to other end-users (e.g. recyclers) <sup>1</sup> Other product-related data accessible to authorities
Compliance related documents accessible to consumers Compliance related documents accessible to other end-users (e.g. recyclers)

Source: M. Galatola, DG GROW, 2023

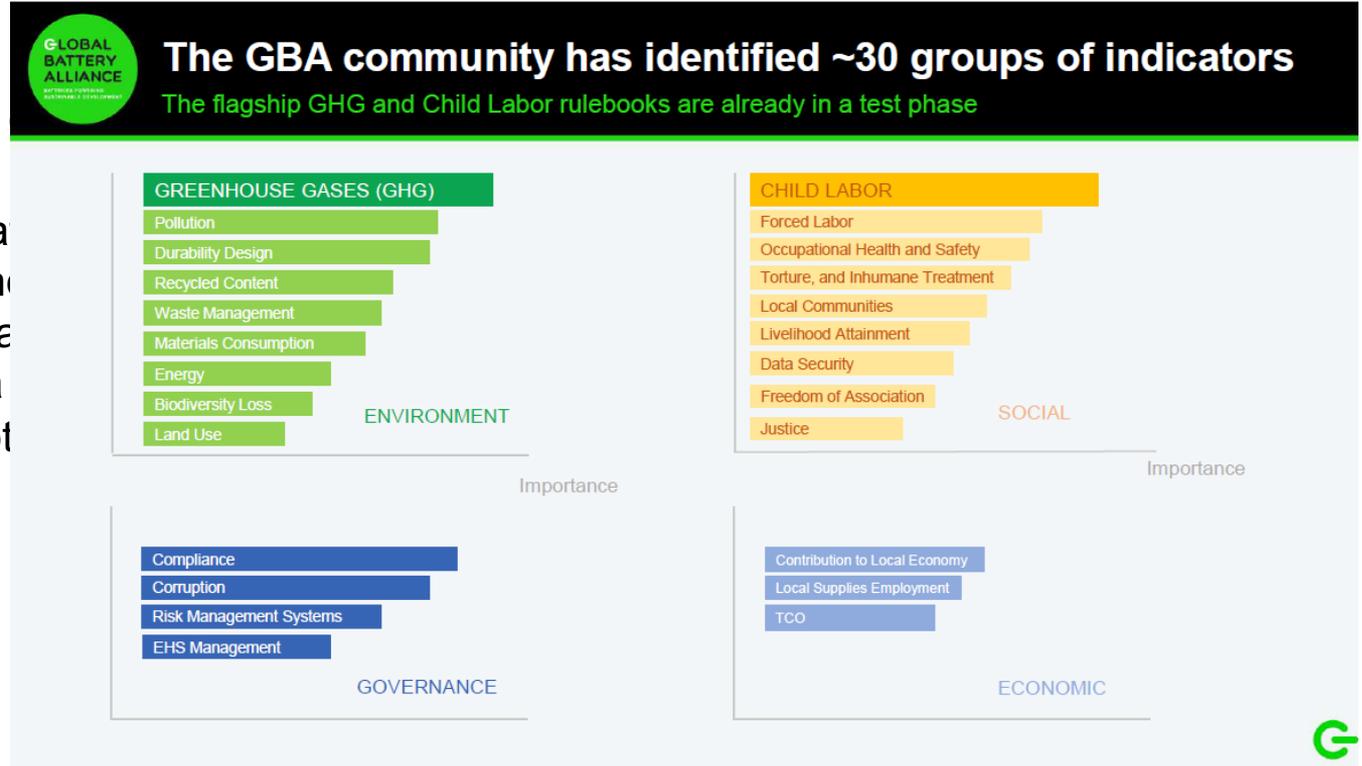


Source: J. Rodrigues Frade, DG GROW, 2023

## DPP-data

Datos a incluir en

- Origen de los ma
- Huella de carbon
- Porcentaje de ma
- Durabilidad de la
- Guías de readapt
- de vida ...



Source: Global Battery Alliance, 2022

## DPP-system

- **La tecnología está disponible y...**
- La Comisión europea no proveerá o prescribirá el sistema o herramienta a emplear de forma obligatoria, pero...
- Se necesitará una **mínima estandarización** en los siguientes ámbitos:
  - ✓ *Unique identifiers*
  - ✓ *Data carriers*
  - ✓ *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*

# Cómo es el DPP

Many aspects of DPP regulation still uncertain, impacting current corporate preparations

	Regulatory elements	Defined	Uncertain	Implications for companies
Scope	1 Product groups	8 prioritized industries, some excluded industries	<ul style="list-style-type: none"> <li>Prioritization of not mentioned yet industries</li> <li>Priority product groups within industries</li> </ul>	All industries can start DPP preparations, most importantly companies in prioritized industries
	2 Company size	All company sizes to be affected	<ul style="list-style-type: none"> <li>Differentiation of detailed requirements</li> <li>Detailed support mechanisms for SMEs</li> </ul>	All companies need to act now and collaborate across VCs to prepare for the DPP implementation
	3 Application level	DPPs at item, batch or product model level	<ul style="list-style-type: none"> <li>Preferred application level</li> <li>Scope and definition of different levels</li> </ul>	Companies need to be able to adjust the level of data collection based on upcoming decision on application level per product group
Tech	4 Data storage	EU registry for storing UPIs <sup>1</sup> ; companies responsible for storing detailed DPP data	<ul style="list-style-type: none"> <li>Tech options and interoperability</li> <li>Division of responsibilities between stakeholders</li> </ul>	Opportunity to assess different technology options together with industry and VC partners, considering that EU will be technology-neutral but will establish common rules to ensure interoperability (rules not yet decided)
	5 Data carrier	Shall be ISO-/IEC-compliant and specified by product group	<ul style="list-style-type: none"> <li>Data carrier format</li> <li>Degree of standardization between product groups</li> </ul>	
	6 Access/security	Different access restrictions per stakeholder group	<ul style="list-style-type: none"> <li>Access levels for diff. stakeholder groups</li> <li>Details on data security and privacy</li> </ul>	Need for status quo assessment of corporate data security and privacy mechanisms to prepare for mandatory disclosures
Data	7 Data requirements	Differ by product group, currently long list of potential topics	<ul style="list-style-type: none"> <li>Clear definitions of data requirements</li> </ul>	Opportunity to take existing reporting standards and regulations (incl. eco-design regulations) as guidance for data collection but need for flexibility in measurement scopes (e.g., report on item level)
	8 Governance	Data provision/update by economic operator placing product on EU market	<ul style="list-style-type: none"> <li>Protection against data manipulation</li> <li>Data verification (e.g., assurance)</li> </ul>	Need for status quo assessment of IT infrastructure, data availability, and data quality

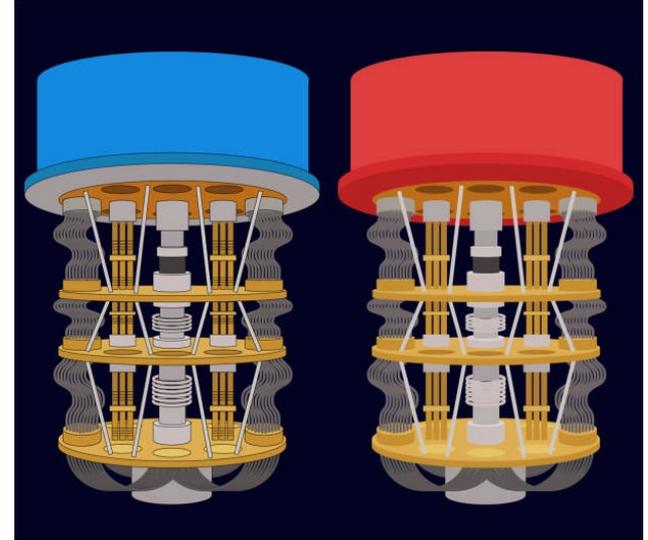
# 04

## Conclusiones



# Bureaucratic burden or growth opportunity?

Source: *Circularise*, 2022



## Retos técnicos

- Aprovechar los sistemas existentes: **Automatizar flujos de información**



- **Implementar nuevos sistemas:**

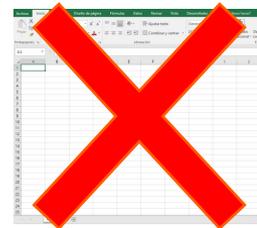
- Generar información, p.e. sensorica → “¿Qué me interesaría medir?”
- Portar información: carriers → “¿Cuál es el que mejor se adapta a mi negocio?”



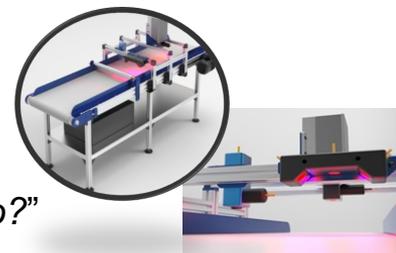
- **Interconectar componentes**



- **Automatizar cálculos** → P.e., cálculo de huella de carbono



- ¿Cómo **compartir la información**...?



## Oportunidades para la empresa

- Mejor **gestión de los datos**
- Mayor **volumen de datos**
- Mejorar **procesos internos**
- Mejor interacción con otros agentes, en cuanto a aumento de eficiencia, **aumento de CONFIANZA** en cadena de valor
- Oportunidad de **nuevos negocios (circulares)**
- ... en definitiva, diseñar/actualizar los **PLANES DE DIGITALIZACIÓN** dirigidos a mejorar la **SOSTENIBILIDAD/CIRCULARIDAD de PRODUCTOS (Y SERVICIOS)**.

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