European Commission

Preparatory study on ecodesign requirements for furniture

Phase I
DPP content for furniture products under ESPR

Draft Report
Version 2

Draft for SHM 1

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Preparatory study and impact assessment support study on furniture

Preparatory Study Phase I
DPP content for furniture products under ESPR

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Abbreviations

ANSI	American National Standards Institute
API	Application Programming Interface
ARGE	Data exchange format used in furniture distribution
B2B	Business-to-Business
B2C	Business-to-Consumer
BoC	Bill of Chemicals
BoM	Bill of Materials
BPR	Biocidal Products Regulation
CAD	Computer-Aided Design
CARB ATCM	California Air Resources Board Airborne Toxic Control Measure
CE	Conformité Européenne (European conformity marking)
CEN	European Committee for Standardization
ChemX	Digital chemical-data exchange framework
CITES	Convention on International Trade in Endangered Species
CLP	Classification, Labelling and Packaging Regulation
CN	Combined Nomenclature
CoC	Chain of Custody
CPA	Classification of Products by Activity
CPR	Construction Products Regulation
CSA PRICAT	Customer-Specific Price/Sales Catalogue format
DMP	Digital Material Passport
DoPC	Declaration of Performance and Conformity
DOI	Digital Object Identifier
DPP	Digital Product Passport
DSI	DPP System Information
ECHA	European Chemicals Agency
EC	European Commission
EEA	European Economic Area
EFIC	European Furniture Industries Confederation
EN	European Standard
EoL	End of Life
EORI	Economic Operators Registration and Identification number
EPCIS	Electronic Product Code Information Services
EPD	Environmental Product Declaration

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EPF	European Panel Federation
EPR	Extended Producer Responsibility
ERP	Enterprise Resource Planning
ESPR	Ecodesign for Sustainable Products Regulation
EUDR	EU Deforestation Regulation
EUTR	EU Timber Regulation
EU	European Union
FEMB	Federation of European Manufacturers of Office Furniture
FSC	Forest Stewardship Council
GLN	Global Location Number
GOLS	Global Organic Latex Standard
GOTS	Global Organic Textile Standard
GPP	Green Public Procurement
GPSR	General Product Safety Regulation
GRS	Global Recycled Standard
GS1	Global Standards One
GTIN	Global Trade Item Number
HS	Harmonised System (customs classification)
HTML	HyperText Markup Language
IDM	Integrated Data Model
ISCC PLUS	International Sustainability and Carbon Certification PLUS
ISO	International Organization for Standardization
IT	Information Technology
ISSN	International Standard Serial Number
ISBN	International Standard Book Number
JRC	Joint Research Centre
JTC 24	Joint Technical Committee 24 (CEN-CENELEC)
KPI	Key Performance Indicator
LCA	Life Cycle Assessment
MEErP	Methodology for Ecodesign of Energy-related Products
MES	Manufacturing Execution System
MSA	Market Surveillance Authority
NACE	Statistical Classification of Economic Activities in the EU
NGO	Non-Governmental Organisation
OEM	Original Equipment Manufacturer
OFML	Office Furniture Modelling Language
OUL	Other Union Law

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PCF	Product Carbon Footprint
PDF	Portable Document Format
PEF	Product Environmental Footprint
PEFCR	Product Environmental Footprint Category Rules
PEFC	Programme for the Endorsement of Forest Certification
PIM	Product Information Management
PLM	Product Lifecycle Management
POPs	Persistent Organic Pollutants
PPWR	Packaging and Packaging Waste Regulation
PRICAT	Price/Sales Catalogue Message
PRO	Producer Responsibility Organisation
PRODCOM	Production Communautaire (EU industrial production classification)
QR	Quick Response (code)
RAL	Reichsausschuss für Lieferbedingungen (German quality mark system)
RCS	Recycled Claim Standard
RE	Restricted (dissemination level)
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
SDS	Safety Data Sheet
SME	Small and Medium-sized Enterprise
SoC	Substance of Concern
SRM	Supplier Relationship Management
SVHC	Substance of Very High Concern
TARIC	Integrated Tariff of the European Union
TLR	Textile Labelling Regulation
TPAC	Timber Procurement Assessment Committee
UC	Use Case
UFI	Unique Facility Identifier
UOI	Unique Operator Identifier
UPI	Unique Product Identifier
VOC	Volatile Organic Compound
WFD	Waste Framework Directive

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1 Introduction

The Digital Product Passport (DPP), established under the Ecodesign for Sustainable Products Regulation (ESPR), is a key instrument for making product-related information available in a structured, accessible and interoperable form. Depending on the requirements defined in product-specific delegated acts, the DPP can support regulatory compliance and market surveillance, informed purchasing decisions and circular activities such as maintenance, repair, reuse, refurbishment and recycling.

This report forms part of the preparatory study supporting the development of ecodesign requirements for furniture under the ESPR. Its purpose is to develop a structured basis for potential furniture DPP content requirements. The analysis follows the use-case-driven methodology developed by Chawla et al. (2025) and combines the ESPR legal framework with existing EU disclosure obligations, current furniture-sector data practices, relevant voluntary schemes, stakeholder evidence and ongoing standardisation activities. It assesses which information is already available, where relevant data gaps occur, which actors generate or require the information, and at what granularity and access level information may be needed.

The analysis covers both DPP content and product-group-specific DPP system information relevant to the definition of requirements, including granularity, access rights, data-carrier requirements and data governance. Detailed technical implementation, such as IT architecture, hosting models, cybersecurity solutions and integration with company information systems, is outside the scope of this report.

The results represent an intermediate stage of the methodology. They provide the basis for the subsequent validation and prioritisation of use cases and data needs, their translation into detailed DPP specifications and final stakeholder validation. The feasibility, proportionality, costs and administrative burden of the proposed requirements are to be assessed further during the subsequent specification and impact assessment stages.

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2 Context and legal basis

Chapter 2 is reproduced, with minor adaptation, from the corresponding section of the JRC DPP reports on textiles (González-Torres & Arcipowska, 2026) and on iron and steel (Arcipowska et al., 2026). This alignment is intentional and serves harmonisation purposes across product groups, as the content on context and legal basis applies equally to all ESPR product groups under DPP scope.

The DPP is anchored in the ESPR, which entered into force on 18 July 2024 and establishes a horizontal framework for sustainability, circularity and information obligations for almost all physical goods placed on the EU market. Under this framework, the Commission is empowered to adopt delegated acts setting out performance and information requirements, irrespective of whether they are manufactured within the Union or imported from third countries.

In the Regulation, the DPP is introduced as the primary mechanism for implementing and operationalising ESPR information requirements in a digital, structured, and accessible manner (Article 9 and Annex III). It would hence enable the transitioning from traditional methods including physical technical documentation to the digitalisation of product information, improving the accessibility, consistency, and traceability of existing information requirements. Nevertheless, its principal innovation lies not only in digitalisation, but also in the harmonised structuring of information and the definition of differentiated access rights for various user groups, including consumers, market surveillance authorities, economic operators, and other stakeholders.

However, ESPR does not regulate entire supply chain data collection but offers the DPP to disclose structured and harmonised information of the products under the scope of relevant delegated acts. Economic operators and other actors along the value chain may choose to align with the semantic and technical infrastructure of the DPP to facilitate the circulation of product-related information, but such alignment is not mandated beyond the requirements set out in the Regulation and the relevant delegated acts.

Moreover, the DPP may function as a form of digital product identity in the future, capable of linking information required under different pieces of EU legislation, as well as voluntary data provided by manufacturers or other actors. In this way, the DPP has the potential to support multiple policy objectives simultaneously, including market surveillance, consumer information, circular economy strategies, and industrial competitiveness, while helping to reduce duplication of reporting obligations over time.

Furniture has been explicitly listed in the Commission's first ESPR Working Plan (2024–20302) as a priority reflecting their strategic importance for circularity, resource efficiency and decarbonisation objectives. Consequently, a DPP is expected to be introduced for this product group through a forthcoming delegated act under the ESPR.

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2.1 Legal requirements under ESPR

2.1.1 Roles and responsibilities

Under the ESPR, compliance with product-specific ecodesign requirements, including information requirements implemented through the DPP, is ensured through obliations to economic operators in accordance with their role in the supply chain, as defined in the Regulation.

In line with the allocation of responsibilities used in other EU product legislation, primary responsibility for ensuring that the DPP is available, accurate and complete lies with the economic operator placing the product on the market the manufacturer[1] (in exceptional cases the economic operator putting the product into service in the EU) or, where the manufacturer is not established in the Union, with the importer[2]. They are also responsible for ensuring the DPP is accurate, complete, and up to date and for uploading at least the unique identifier in the DPP registry. Where an authorised representative has been designated in accordance with the Regulation, that representative may perform specific tasks on behalf of the manufacturer or importer / economic operator placing the product on the market within the limits of the mandate conferred, without assuming overall responsibility for product compliance unless explicitly provided for in the Regulation.

Distributors[3] make products available on the market after those products have been placed thereon by the manufacturer or importer and have a more limited role under the ESPR. Before making a product available on the market, distributors must verify that the product complies with the applicable requirements, including the presence of required information and, where applicable, access to a DPP as required by a delegated act. Distributors must not make products available on the market if they know, or have reason to believe, that the product does not comply with the applicable ESPR requirements.

Other actors (e.g., online marketplaces, dealers[4], fulfilment service providers[5]) do not assume primary responsibility for product compliance or DPP content, which remains with manufacturers or importers, unless explicitly provided for in the Regulation.

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[1] 'manufacturer' in the ESPR framework means any natural or legal person that manufactures a product or that has a product designed or manufactured, and markets that product under their name or trademark

[2] 'importer' in the ESPR framework means any natural or legal person established in the Union that places a product from a third country on the Union market

[3] 'distributor' in the ESPR framework means any natural or legal person in the supply chain, other than the manufacturer or the importer, that makes a product available on the market

[4] 'dealer' in the ESPR framework means a distributor or any other natural or legal person that offers products for sale, hire or hire purchase, or that displays products, to end users in the course of a commercial activity, including through distance selling; and includes any natural or legal person that puts a product into service in the course of a commercial activity

[5] 'fulfilment service provider' in the ESPR framework refers to Regulation (EU) 2019/1020 and means any natural or legal person who offers, in the course of commercial activity, at least two of the following

The ESPR Article 2 also defines the term 'digital product passport service provider'; understood as a natural or legal person that is an independent third-party authorised by the economic operator which places the product on the market or puts it into service and that processes the digital product passport data for that product for the purpose of making such data available to economic operators and other relevant actors with a right to access those data under this Regulation or other Union law.

The ESPR further requires that information made available through the DPP be accurate and consistent with the product placed on the market, and that it be made available in the manner and at the time specified in the relevant delegated act. Detailed obligations regarding the content, timing, accessibility, and updating of DPP information are to be defined at product-group level through delegated acts.

2.1.2 DPP content requirements

The scope of data disclosures addressed by this report is grounded in the ESPR provisions on the DPP, notably Article 9, which establishes the DPP framework and sets out the types of requirements that may be defined through delegated acts. These provisions are complemented by Annex III, which enumerates the categories of information that may be required to be made available through the DPP pursuant to Article 9(2)(a), including:

- product and producer identification and information, Annex III (b-d), (g-k);
- product-specific information parameters, Article 7(2) (b);
- information requirements on substances of concern, Article 7(5), and,
- information requirements under other Union law applicable to the relevant product group, Annex III (a), (e), (f).

2.1.2.1 Product and producer identification

This category covers information elements that enable the unambiguous identification of a product and its association with the relevant actors and locations through the DPP. Product identification constitutes a foundational element of the DPP under the ESPR, as it allows product-related information to be reliably linked, accessed and reused in a digital and interoperable manner.

The ESPR establishes overarching requirements for the use of three types of unique identifiers, which function as technical and semantic references linking DPP data to the relevant entities:

- *unique product identifier (UPI)*[6]*:* a unique string of characters used to identify a product and to enable a digital link to the corresponding DPP. The UPI serves as

services without having ownership of the products involved: warehousing, packaging, addressing and dispatching.

[6] UPIs, as the rest of the data points, can be set at model, batch or item level (see section 2.1.3.1). Defining UPIs at coarser granularity (e.g., batch or model) does not compromise their uniqueness;

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the primary reference point for associating all DPP-related information with a specific product.

- *unique operator identifier (UOI):* a unique string of characters used to identify an economic operator involved in the product's value chain, supporting the attribution of responsibilities and the linking of product information to the relevant actor.
- *unique facility identifier (UFI):* a unique string of characters used to identify locations or facilities involved in the product's value chain, where such identification is relevant to the information requirements defined in a delegated act.

Given their cross-sectoral relevance, these identification elements are subject to substantial standardisation input, notably through the work of the Joint Technical Committee 24 (JTC24) of CEN-CENELEC, which develops horizontal standards for identifiers, data structures, and digital interoperability.

2.1.2.2 Product and producer information

This category covers descriptive information about the product and the economic operators responsible for it. It complements the product identification by supplying the substantive attributes needed to describe what the product is and who is responsible for placing it on the Union market.

Depending on the product group and the requirements laid down in the relevant delegated act, this category may include, inter alia:

- the product name, model designation and version, enabling clear differentiation between product variants;
- the identity and contact details of the manufacturer or other responsible economic operator, in line with the allocation of responsibilities under the ESPR;
- information on the manufacturing site or other relevant facilities, where such information is required to support compliance or enforcement;
- other descriptive attributes necessary to distinguish between configurations, batches or versions of a product.

Unlike product identification, which relies on unique identifiers serving as references, product and producer information consists of descriptive, human-readable and machine-readable attributes that provide context and meaning to the identifiers used in the DPP. The precise scope, level of detail and presentation of this information are to be determined at product-group level through delegated acts, taking into account existing information requirements under Union law and the need to avoid unnecessary duplication of disclosures.

each remains a distinct digital link to a single DPP containing shared information for all associated items.

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2.1.2.3 Product-specific information regarding ecodesign product aspects and parameters and related information

ESPR provides the legal basis for defining product-specific information requirements that may be made available through the DPP via delegated acts. These information requirements are intended to support the sustainability, circularity and effective use of products, while considering the diversity of product groups covered by the Regulation.

In particular, Article 7(2)(b) allows delegated acts to require the provision of the following types of information, where relevant for the product group concerned:

- *Information relating to ecodesign product aspects (listed in Article 5(1)) and parameters (referred to in Annex I)* that are relevant to sustainability and circularity, such as durability, reparability, reusability, upgradability, energy and resource efficiency.
- *Information for users and other actors on installation, use, maintenance and repair* to support correct use and extend product lifetime. Where relevant, this may also include guidance supporting refurbishment, remanufacturing or other life-extension strategies.
- *Information for treatment facilities* addressed to operators involved in end-of-life treatment, including disassembly, reuse, refurbishment, recycling or disposal. This information may support safe handling, component separation and material recovery, thereby contributing to high-quality recycling and alignment with waste management objectives.
- *Other information influencing sustainable product choices and handling,* allowing for the inclusion of additional disclosures that may influence sustainable purchasing by customers or the handling of products by actors other than the manufacturer.

The relevance, scope and level of detail of product-specific parameters and information vary significantly across product groups. Thus, their identification is clearly linked to the output of the preparatory studies, which assess product characteristics, environmental and socio-economic impacts, technical feasibility and policy priorities.

2.1.2.4 Information on substances of concern

Information on substances of concern (SoC), as defined in Article 2(27) of the ESPR, is required to be disclosed through the DPP.

Pursuant to Article 7(5) of the ESPR delegated acts may require the disclosure, where proportionate and relevant, of information such as:

- the identification of SoC present in the product;
- information on their presence or location within the product, where necessary to support safe use, repair, refurbishment or end-of-life treatment; and
- information relevant for treatment operators, including recyclers, to enable appropriate handling or separation.

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The scope, level of detail and format of SoC-related disclosures are to be determined at product-group level, taking into account existing obligations under Union chemicals and waste legislation, the availability of data, and the intended use of the information. The ESPR approach aims to complement existing disclosure requirements and to provide targeted, actionable information, rather than comprehensive chemical inventories. Thus, this category is also highly dependent from the outputs of the dedicated preparatory studies.

2.1.2.5 Compliance documentation and information under the ESPR

The ESPR also provides the legal basis for the inclusion of compliance-related documentation and information in the DPP. This category encompasses essential records demonstrating that a product satisfies applicable ecodesign requirements before being placed on the market or put into service.

While the inclusion of compliance information related to other EU law is also possible, when talking specifically about requirements under ESPR, this category includes:

- *EU Declaration of conformity*: manufacturer's statement confirming compliance with ESPR, among other applicable regulations, and fulfilment of ecodesign requirements.
- *Technical documentation*: evidence supporting compliance with ecodesign requirements, including for instance manufacturing drawings, results of measurements, design calculations or test reports.
- *Certificates*: formal certifications or approval decision issued from notified bodies verifying compliance.

These elements ensure the DPP functions as a verifiable compliance tool, enabling market surveillance and regulatory enforcement. Delegated acts may introduce additional compliance-related data points for specific product groups.

2.1.2.6 Information required under other Union law

Annex III(a) of the ESPR provides legal basis to require that *information already mandated under other applicable Union legislation* for a given product group be made available through the DPP. This inclusion is optional and must be explicitly specified in the relevant product-specific delegated act.

In addition, Annex III(e) and Annex III(f) enable the inclusion in the DPP of:

- compliance documentation, such as the EU declaration of conformity or elements of technical documentation required under other Union legislation; and
- information intended for the user, including manuals, instructions for use, warnings or safety information that manufacturers are required to provide under other applicable Union acts.

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Taken together, these provisions allow the DPP to function, where appropriate, as a digital access point for information already required under Union law, without creating new substantive information obligations and duplication.

The identification of relevant information under this category is therefore linked to the furniture preparatory study, which includes a systematic review of existing and forthcoming Union legislation applicable to furniture.

2.1.2.7 Non-functional information

In addition to specifying the categories of information to be made available through the DPP, the ESPR establishes a set of non-functional requirements that apply to the specification and provision of DPP data. These requirements do not concern the substantive content of the information as such, but rather the qualities that DPP data must exhibit in order to ensure:

- Clarity, accessibility and purpose-oriented usability, Art.7(2)(b)-(c) and Art 9(1) and 9(3).

The ESPR requires that information requirements in the DPP be clear, easily understandable and appropriately tailored to the characteristics of the product and intended recipients. They need to reflect differences in product complexity, use patterns and value chains, as well as the needs of different user groups, such as consumers, professional users, market surveillance authorities, and other economic operators. In addition, the ESPR requires that DPP ensures accessibility, verification and traceability along the value chain. The data shall be accurate, complete and up to date.

- Interoperability and format requirements, Art 10(1)(d).

The ESPR mandates that DPP data be based on open standards, use interoperable and machine-readable formats, be structured and searchable as appropriate, and be transferable through open and interoperable data exchange networks without vendor lock-in. Interoperability aspects (technical, semantic, organisation) are covered under the standardisation work (see **Section 2.1.5**)

- Data retention, Art 9(2)(i).

The ESPR requires that DPP information remain available over time, at least for the expected lifetime of the product, in order to support long-term objectives such as repair, reuse, recycling, and market surveillance.

2.1.3 DPP system information

DPP Data System Information (DSI) refers to system-level requirements governing the functioning of the DPP, independently of the product-specific information content defined in product-group delegated acts. DSI requirements concern how the DPP operates as a digital system rather than what information it contains.

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The main DSI elements addressed in this section are:

- Granularity levels of the DPP, Art 9(2)(d);
- Access rights and role-based data visibility, Art 9(2)(f);
- Rules on governance, Art. 9(2) (g-h), and
- DPP Registry and Web portal, Art.13 and Art 14.

Determining detailed DSI requirements involves a combination of analysis of existing data-sharing practices within relevant value chains and assessment of comparable digital systems, in order to ensure that the DPP system addresses practical needs and constraints while remaining technically feasible, proportionate and respecting confidentiality of sensitive information.

The ESPR does not prescribe the technical design of the DPP system. Instead, it relies on standardisation and technical implementation to operationalise requirements such as role-based access models, data exchange mechanisms, data structure and semantic interoperability, machine-readable formats, and cross-sector compatibility. These standards are expected to form the technical foundation for compliance with the ESPR requirements, as outlined in **Section 2.1**

2.1.3.1 Granularity of the DPP

The level of granularity refers to the detail at which product-related data are collected, stored, and tracked in the DPP context. Article 9(2)(d) of the ESPR provides that product-specific delegated acts to specify the appropriate level of granularity at which a DPP is to be established. This should reflect the needs of market surveillance, circular economy-related use cases, and traceability, while avoiding unnecessary administrative or technical burden.

Depending on the product group and policy objectives, the DPP may be established at product model level, batch or lot level, or individual item level. While their definitions will be established through delegated acts adopted under Art. 4[7], Recital 33 provides indicative descriptions:

- "The term 'model' usually refers to a version of a product of which all units share the same technical characteristics relevant for the ecodesign requirements and the same model identifier,"
- "The term 'batch' usually refers to a subset of a specific model composed of all products produced in a specific manufacturing plant at a specific moment in time" and
- "The term 'item' usually refers to a single unit of a model."

[7] ESPR Article 9(2) "*The requirements related to the digital product passport laid down in the delegated acts adopted pursuant to Article 4 shall, as appropriate for the product groups covered, specify the following: …whether the digital product passport is to be established at model, batch or item level, and the definition of such levels;*"

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Evidence from the furniture stakeholder consultation indicates that currently available product information is predominantly managed at model or product-family level. Batch-level traceability is used selectively where product or material characteristics vary between production runs or supplied materials, while item-level lifecycle information remains uncommon[8]. Moving to a finer DPP granularity than existing practices may therefore require additional identification, data capture and system integration and can increase implementation and compliance costs.

Accordingly, where possible, DPP granularity requirements should be aligned with established industrial traceability practices in the relevant value chain. Such alignment can facilitate implementation, reduce compliance costs, and support interoperability.

2.1.3.2 Access rights and role-based data visibility

Article 9(2)(f-g) of the ESPR allows product-specific delegated acts to specify which actors may access which categories of information made available through the DPP. This enables the implementation of role-based data visibility, whereby access to certain data fields may be restricted to authorised actors depending on their role in the value chain and the intended use of the information.

Such differentiation of access rights supports the objectives of the ESPR by balancing transparency, effective enforcement, and the protection of confidential business information. The Regulation itself does not define access categories or access levels, nor does it prescribe a fixed access model. Instead, the allocation of access rights is to be determined at product-group level through delegated acts, taking into account proportionality, data protection requirements, and the protection of trade secrets.

Moreover, the Regulation does not prescribe how access rights should be implemented technically. The operationalisation of role-based access control is therefore expected to be addressed through standardisation and technical implementation, informed by the requirements set out in delegated acts.

The ESPR explicitly refers to a broad range of actors, including customers, manufacturers, importers, distributors, dealers, professional repairers, independent operators, refurbishers, remanufacturers, recyclers, market surveillance authorities, customs authorities, civil society organisations, trade unions, and other relevant actors, who shall have free-of-charge and easy access to the DPP in accordance with the access rights defined in the applicable delegated act.

2.1.3.3 Rules on data governance

The ESPR enables product-group delegated acts to define rules governing the updating, maintenance, and management of information made available through the

8 Based on the stakeholder consultation and value-chain analysis undertaken under the ESPR preparatory study for furniture.

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DPP, with the objective of ensuring that DPP information remains accurate, relevant and reliable throughout the product lifecycle.

In particular, delegated acts may specify, where relevant for a given product group:

- responsibility for updates, i.e., which economic operator(s) or other actor(s) are responsible for creating, validating, and updating specific categories of DPP information;
- update triggers, i.e., the events or conditions that require an update (e.g. placing on the market, repair/refurbishment operations, component replacement, change of ownership, or end-of-life treatment, where relevant);
- timing and frequency, including deadlines for updating information after a triggering event, taking into account proportionality and the nature of the information concerned; and
- change recording and traceability, including requirements to keep update logs, record timestamps and responsible actors, and (where necessary for enforcement or traceability) retain previous versions of specific data fields.

However, the ESPR does not prescribe uniform technical solutions for version control, workflow management, or data governance. The operationalisation of update mechanisms and maintenance processes is therefore expected to be supported by standardisation and technical implementation, ensuring compliance with the Regulation's horizontal requirements on system functionality (including access control, interoperability, integrity, and availability of DPP data).

2.1.3.4 DPP registry and Web portal

The Commission established the Digital Product Passport Registry[9] pursuant to Article 13 ESPR, and the Registry became operational on 20 July 2026. Its implementation arrangements are laid down in Commission Implementing Regulation (EU) 2026/1778. The Registry constitutes the central EU infrastructure for registering DPPs, while the underlying product data remain decentralised.

The Registry securely stores at least the unique identifiers required under Article 13 ESPR and, for products intended to be placed under the customs procedure 'release for free circulation', the commodity code. Product-specific delegated acts may specify additional data to be stored in the Registry. Registration is carried out at the level of granularity prescribed by the applicable Union legislation, i.e. model, batch or item level. Following registration, the Registry assigns a unique registration identifier associated with the registered unique identifiers.

Economic operators subject to a DPP requirement must therefore:

[9] The Digital Product Passport Registry was established pursuant to Article 13 of Regulation (EU) 2024/1781 and became operational on 20 July 2026. Its implementation arrangements are laid down in Commission Implementing Regulation (EU) 2026/1778 of 16 July 2026. The Registry stores at least the unique identifiers and, for products intended for release for free circulation, the commodity code.

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- register the DPP and the required identifiers and metadata in the Registry;
- ensure that the registered information corresponds to the DPP established for the relevant product, model, batch or item; and
- maintain the information in accordance with the applicable DPP requirements.

The Registry is managed by the Commission and provides access to the Commission, competent national authorities and customs authorities for the performance of their duties under Union law. The operational Registry is currently accompanied by a testing environment, technical documentation and implementation guidance for economic operators.

In addition, Article 14 ESPR requires the Commission to set up and manage a publicly accessible DPP Web Portal[10]. The Web Portal is intended to allow stakeholders to search for and compare information contained in DPPs in accordance with the access rights established in the applicable delegated acts. It therefore serves a different function from the Registry: the Registry supports registration and regulatory control, whereas the Web Portal provides the user-facing search and comparison functionality.

2.1.4 Data carrier

The ESPR requires that every DPP be accessible through a data carrier that is physically linked to the product, its packaging, or documentation. The legal requirements for the data carrier are set out primarily in Article 10(1) (a–c), which ensure that the DPP can be accessed reliably throughout the product's life cycle.

The ESPR sets functional requirements for the data carrier but does not prescribe specific technologies. Instead, the Regulation establishes a framework within which standardisation activities, in particular those carried out by CEN/CENELEC/JTC 24, are expected to develop technical standards supporting implementation, including standards for identifiers, data carriers, and interoperability.

The delegated acts based on these standards will specify for each product group one or more types of data carrier to be used, without prejudice to technological neutrality. Moreover, they may also specify where the data carrier must be located (e.g., on the product, on a nameplate, on the packaging, or in accompanying documentation). Where relevant, delegated acts may also include durability and readability requirements for the data carrier, ensuring that it remains readable for at least the period during which the DPP must remain accessible.

2.1.5 Harmonisation & standardisation effort

To ensure that the DPP system is secure and interoperable across the Union, European standardisation organisations are developing a set of core technical

[10] Article 14 of Regulation (EU) 2024/1781 requires the Commission to set up and manage a publicly accessible Web Portal enabling stakeholders to search for and compare DPP data in accordance with their respective access rights.

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standards supporting the implementation of the ESPR DPP framework. This work is being undertaken by the CEN-CENELEC Joint Technical Committee 24 (JTC24).

The table below provides an overview of the standards currently published or under development by JTC 24:

Table 2-1: Overview of the standards developed by JTC 24.

Standard	Title
EN 18216:2026	Data exchange protocols
EN 18219:2026	Unique identifiers
EN 18220:2026	Data carriers
EN 18221:2026	Data storage, archiving and data persistence
EN 18222:2026	Application Programming Interfaces (APIs) for product passport lifecycle management and searchability
EN 18223:2026	System interoperability
FprEN 18239	Access rights management, information system security, and business confidentiality
FprEN 18246	Data authentication, reliability and integrity

These elements constitute the technical baseline upon which all DPP systems are expected to be built, independently of product-specific content requirements.

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3 Methodology for definition of DPP content

3.1 Step-by-step process

The goal of the methodology is twofold. First, it focuses on identifying data points required under the ESPR delegated acts, ensuring that all mandatory information for the DPP is systematically captured. Second, it aims to identify additional data points already collected by industry that may not be legally required but are nevertheless considered useful for improving transparency, operational efficiency, or sustainability performance. By combining regulatory and consumer/industry-relevant data needs, the methodology helps illustrate potential options for defining the scope of the DPP.

The methodology applied in this study was developed as part of the ESPR methodological framework and provides the theoretical foundation for defining DPP content across product groups (Chawla, K. et al., 2025). It follows a structured four-step approach (Figure 3-1) designed to ensure that the resulting specifications are

policy-relevant, technically sound, and aligned with existing standards and regulatory requirements.

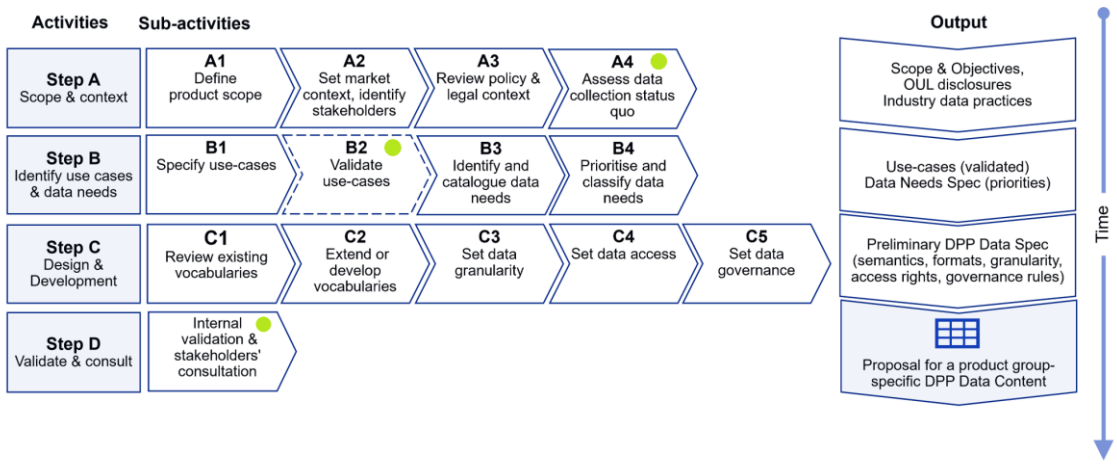

Figure 3-1: Methodology for setting DPP content under ESPR, including allocation to MEErP Tasks.

Source: (Chawla, K. et al., 2025)

The four steps are as follows:

- ***Step A: Scope & context* → This intermediate study**
  This step involves defining the product group and contextual basis based on existing disclosure obligations and related systems and current industry practices in data collection, sharing, and verification. The outputs of this step are presented in Section 4 (scope) and 5 (policy and market-driven disclosures) in this report.
- ***Step B: Identifying Data Needs → Draft data needs proposed***
  Step B translates the scope and context into use-case-driven conceptual information requirements and organises these into a structured conceptual list of data points
- ***Step C: Design & Development***
  This is the core ontological and technical phase. It translates conceptual data needs into a set of specific recommendations for the DPP content for the product group under analysis (section 7). This phase includes identifying appropriate vocabularies, performing a structured gap analysis against existing standards (section 8), and establishing rules for data granularity (section 9.1), access rights (section 9.2), and governance (section 9.3).
- ***Step D: Validation & Iteration***
  The proposed DPP specification undergoes internal validation and, where appropriate, external expert feedback. This step ensures that the DPP design is fit for purpose, technically implementable, and aligned with stakeholder needs. While this report already integrates some input from selected actors along the value chain to describe the current data-related industry practices and refine the proposals for the DPP specifications, dedicated open stakeholder consultation should be performed as next step, to validate and adjust the recommendations in this report as relevant.

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It is important to stress that

1. this is the first, intermediate study, covering Steps A1 – A4. Based on these results, first use-cases (B1) and data needs (B3) are proposed, as basis for efficient evaluation and discussion by stakeholders.
2. the outputs of this method are validated through stakeholder consultation at three points in the process A4, B2 and D (see green dots in **Figure 3-1**).
3. findings are supported by an impact assessment evaluating expected overall benefits as well as the costs and administrative burden for economic operators.

3.2 Stakeholder engagement

This assessment draws on the stakeholder consultation carried out for the ESPR preparatory study on furniture, comprising more than 40 written submissions collected between May and July 2026 from actors referenced in **Table 3-1.** This evidence base is used to characterise who provides which information along the value chain, in what format and through which systems, using which definitions and classification schemes, at what quality and granularity, through which verification mechanisms, and subject to which barriers.

Table 3-1: Respondents by stakeholder type.

Stakeholder type	Respondents	Share
Furniture manufacturers and retailers	9	20%
Industry and trade associations	10	22%
Materials and component suppliers	6	13%
Public authorities	6	13%
Environmental NGOs and networks	4	9%
Testing, certification and standards bodies	3	7%
Research, academia and consultancy	3	7%
Consumer organisations	2	4%
Producer responsibility organisation (EPR)	1	2%
Not identified	2	4%
Total	**46**	**100%**

Several European trade federations submitted consolidated positions on behalf of their members, including digitally mature, vertically integrated companies and micro-enterprises and craft workshops that make up the majority of the EU furniture sector. Where written submissions do not fully capture emerging practice, this section is complemented by academic research and pilot-project reports documenting how the sector is testing DPP concepts ahead of regulation (**Table 3-2)**.

Table 3-2: Complementing position paper, academic research and pilot-project reports.

Reference (APA)	Type of source	Role in this section
Ashford, N. A. (2000). An innovation-based strategy for a sustainable environment. In J. Hemmelskamp, K. Rennings, & F. Leone (Eds.), *Innovation-oriented environmental regulation* (pp. 67 to 107). Physica-Verlag.	Academic (book chapter)	Analytical framework used to interpret data-collection barriers
European Furniture Industries Confederation. (2026). *ESPR preparatory study on furniture: Initial questionnaire, EFIC summary input*.	Industry position paper	Consolidated cross-sector industry perspective
European Panel Federation. (2026). *EPF feedback on the ESPR preparatory study on furniture* (Ref. 2026-060). Brussels.	Industry position paper	Wood-based panel and materials-supply perspective
Friis, H., & Mac, T. (2025). *Driving circularity: The role of Digital Product Passport in the Swedish furniture industry* [Bachelor's thesis, University of Gothenburg].	Academic thesis	Independent empirical evidence on national-level DPP readiness
Small Business Standards. (2026). *SBS comments to ESPR preparatory study and impact assessment support study on furniture*. Brussels.	Industry position paper	SME and craft-sector perspective on standardisation and proportionality
Vinnova. (2024). *Product passport as an enabler for circular flows of furniture*. https://www.vinnova.se/en/p/product-passport-as-an-enabler-for-circular-flows-of-furniture/	Pilot-project report	Evidence from the Swedish Trace4Value/Swepass and APPEND pilots
WOOD.be, & TripleR.io. (2026). *Furnipass: Digital Product Passport for the Belgian furniture sector*. FPS Public Health, Food Chain Safety and Environment. https://www.health.belgium.be/en/news/2025-10-more-sustainable-furniture-thanks-digital-passport	Pilot-project report	Evidence from the Belgian Furnipass pilot

4 Step A.1: Scope

4.1 Products included in the scope of the ESPR preparatory study

The product scope of the furniture DPP is derived directly from the scope established in the main "Preparatory study and impact assessment support study on furniture, Phase I: Tasks 1 to 4", where 'furniture" is defined in Task 1, sub-chaper "Product scope". In accordance with Step A.1 of the JRC DPP methodology, the DPP assessment does not redefine the product group, but uses the product scope established under MEErP Task 1 as its starting point. Any subsequent refinement of the product scope in Tasks 2–4 should therefore also apply to the DPP assessment.

- As a preliminary definition furniture is defined as: "*free-standing or **built-in units** whose primary function is to be used for the storage, placement or hanging of items and/or to provide surfaces where users can rest, sit, eat, study or work, whether for indoor or outdoor use. Bed frames, legs, bases and headboards are included in the scope*"

Within this context, the obligation to establish a DPP is considered for furniture placed on the EU market that fall within the product scope defined by the main preparatory study. The DPP assessment therefore does not introduce an additional or narrower furniture product definition, but follows the product scope established by the corresponding ESPR preparatory study.

The scope concerns the furniture product for which the applicable ESPR requirements are to be defined. While the DPP has to be established by the actor placing the product on the market, there are also information requirements e.g. on materials, components and upstream processes that may form part of the furniture DPP, for example information on material composition, recycled content, substances of concern, wood sourcing or relevant components. This distinction is particularly relevant for furniture because many potentially DPP-relevant data originate from material and component suppliers rather than from the final furniture manufacturer.

Furniture is a heterogeneous product group in terms of function, application, location, material composition and construction. This heterogeneity is relevant for the specification of DPP information requirements, but does not in itself require a different product scope for the DPP. Where necessary, subsequent steps may differentiate individual data requirements, vocabularies or other DPP specifications between relevant furniture subgroups.

4.2 Products excluded from the scope of the ESPR preparatory study

Consistent with the main "Preparatory study and impact assessment support study on furniture", products that do not fulfil the functional definition of furniture are **outside the DPP scope**, such as:

- bed mattresses

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- streetlights
- railings and fences
- ladders
- clocks
- playground equipment
- stand-alone or wall-hung mirrors
- electrical conduits
- road bollards
- building products such as steps, doors, windows, floor coverings and cladding

Mattresses are addressed as a separate priority product group under the ESPR Working Plan.

The main study is assessing whether additional clarification should be provided for boundary cases, including vehicle-integrated furniture, products falling under the Construction Products Regulation, and certain product categories distinguished under CN headings 9401 and 9403. Any final exclusions or clarifications established through this assessment should equally define the furniture DPP scope.

No separate furniture-specific exclusion is required for second-hand, repaired or refurbished products. Under the ESPR, products already placed on the Union market do not become new products merely because they are subsequently repaired or refurbished. By contrast, remanufactured products are considered new products where the conditions of Article 2(16) ESPR are fulfilled and would therefore be subject to the applicable requirements where they fall within the product scope.

5 Step A.2: Set the market context and identify stakeholders

5.1 Overview of the furniture value chain

The furniture value chain is characterised by multiple upstream material and component supply chains converging at furniture manufacturing, followed by distribution, use and increasingly circular downstream activities. The main preparatory study distinguishes raw material sourcing, manufacturing, distribution and logistics, product use and end-of-life as principal stages and characterises the sector as complex and fragmented, with generally limited vertical integration across the value chain. At the same time, large manufacturers and retailers may exercise substantial control over product design, sourcing specifications and supplier requirements.

Existing value-chain literature provides a useful basis for structuring these stages. Kaplinsky et al. (2003) describe the wood furniture chain from forestry and primary wood processing through furniture manufacturing, buyers, wholesale and retail to consumers and ultimately recycling or disposal. Brun et al. (2013) provide a broader furniture-industry perspective, differentiating design and product development, raw-

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material and input supply, component manufacturing, furniture production, logistics, wholesale and retail, and supporting services. Together, these approaches capture both the material flow and the organisation of economic activities relevant for furniture.

For the present DPP assessment, this structure is extended to reflect the full circular value chain:

Table 5-1: Main actors across the furniture value chain.

Value-chain stage	Main actors
Raw materials supply/extraction	Wood/timber suppliers, raw textile fibre suppliers, chemical raw-material suppliers, metal (parts) suppliers
Intermediate materials and components	Sawmills; wood-based panel producers; textile, leather, foam, plastics, metal and glass suppliers; chemical, adhesive and coating suppliers; hardware and fittings manufacturers
Design and product development	Furniture manufacturers; brands; product designers; product developers and specifiers; retailers developing own-brand products
Furniture manufacturing	Furniture manufacturers; OEMs; contract manufacturers; SMEs and craft manufacturers; assembly facilities
Finishing, quality control and packaging	Furniture manufacturers; finishing and coating operators; testing and conformity-assessment bodies; quality-control providers; packaging suppliers and service providers
Distribution and logistics	Importers; distributors; wholesalers; logistics providers; warehouses and fulfilment service providers
Wholesale and retail	Wholesalers; furniture retailers; specialist retailers; online retailers and marketplaces; contract-furniture suppliers
Use phase and after-sales services	Consumers; professional users; manufacturers and retailers providing after-sales services; service providers
Repair and maintenance	Professional repairers; upholsterers; maintenance providers; manufacturers and retailers providing repair services; spare-parts providers
Secondary market, reuse and refurbishment	Second-hand retailers and platforms; reuse organisations; refurbishers; resale operators; furniture take-back operators
Remanufacturing	Furniture manufacturers; specialised remanufacturers; refurbishment companies carrying out substantial product transformation

Value-chain stage	Main actors
End-of-life management and recycling	Collection and take-back operators; producer responsibility organisations; waste operators; sorting facilities; dismantlers; wood, metal, plastics, textile and foam recyclers

Source: own elaboration based on Kaplinsky et al. (2003), Brun et al. (2013), aligned to the furniture preparatory study and stakeholder consultation.

Furniture manufacturing represents the main convergence point of different material-specific value chains. Depending on the product, these may include forestry and wood processing, wood-based panels, metals, plastics, textiles, leather, polyurethane foams, glass, adhesives, coatings and hardware. Much of furniture production therefore consists of sourcing and combining materials and components produced by specialised upstream actors, followed by assembly and finishing at the final furniture manufacturer.

From a DPP perspective, relevant information is consequently generated at different stages and by different actors. Raw-material and component suppliers hold information on material properties, composition, origin, recycled content, substances and certifications. Furniture manufacturers generate and combine product specifications, bills of materials, design information, manufacturing information and compliance documentation. Distributors and retailers manage product identification, logistics and commercial information. Repairers, refurbishers, second-hand operators and recyclers may generate or require information related to maintenance, component replacement, product (item) condition, disassembly and end-of-life treatment. The stakeholder consultation confirms that relevant data providers occur across all of these stages (see chapter 7.1**Fehler! Verweisquelle konnte nicht gefunden werden.**).

The downstream stages of the value chain, particularly repair, reuse, refurbishment and end-of-life activities, are particularly relevant for the DPP because information generated before placing the product on the market may subsequently be required by actors that have no direct relationship with the original manufacturer or supplier. Repairers may require component and spare-part information, second-hand and refurbishment operators information on product characteristics and previous interventions, and recyclers information on material composition, substances and disassembly. The DPP can therefore provide a persistent link between information generated upstream and actors requiring this information later in the product life cycle. However, whether such information is currently available, digitally structured and linked to the respective furniture product is assessed separately under Step A.4 (see Fehler! Verweisquelle konnte nicht gefunden werden.).

5.2 DPP-related data roles and functions

The value-chain mapping above identifies the main actors potentially involved in furniture-related information flows. At this stage of the study, it is not determined which actors introduce, access or update specific information, nor which actors should ultimately be responsible for providing particular data through the DPP. These questions are examined in the next steps and subsequent analysis after the stakeholder consultation and validation of potential information requirements for a

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furniture DPP. Afterwards, a detailed actor-by-data matrix will be provided, indicating data flows, including specific functions as stated in the ESPR:

- **Create a DPP**: establish the DPP for a product. The product specific delegated act determines which actor must create it. Art. 9(2)(g).
- **Store the DPP**: retain/host the DPP. It may be stored by the economic operator responsible for its creation or by a DPP service provider. Art. 11(c).
- **Introduce data**: enter data into the DPP. The delegated act determines which actors may introduce which data. Arts. 9(2)(g–h), 11(f).
- **Modify or update data**: change or maintain data already contained in the DPP. These rights are restricted according to the applicable access rights. Art. 11(f).
- **Access data / access rights**: defines which actors may access which DPP data. The specific access rights are determined in the product specific delegated act. Arts. 9(2)(f), 10(1)(g), 11(b).
- **Make accessible / make available**: provide DPP information or the means to access it to the relevant actors or customers. Arts. 9(2)(e), 10(3–4), 11(b).
- **Process data**: broader handling of DPP data by a DPP service provider, including for the purpose of making the data available. Processing beyond what is necessary for the agreed service is restricted. Art. 11.
- **Register / upload to the registry**: provide the required identifiers and other specified information to the central DPP Registry. Art. 13.
- **Ensure data accuracy, completeness and currency**: DPP data must be "accurate, complete and up to date". Art. 9(1).
- **Ensure data authentication, reliability and integrity**: technical/data-quality requirement applying to DPP data. Art. 11(g).

By contrast, generating the underlying source data is not defined as a general DPP function under the ESPR, and "data control" or "data controller" should not be used as a legal concept for responsibility over DPP content. The subsequent chapters therefore examine where information appears to originate, be exchanged or be needed in practice, while the final allocation of DPP responsibilities remains subject to the furniture-specific requirements and their validation.

6 Step A.3: Existing EU disclosure obligations and voluntary schemes

6.1 EU legislation

6.1.1 Overview of ESPR information requirements

The ESPR establishes the overarching framework for product-specific information requirements. For furniture, the exact information requirements will be defined in the forthcoming delegated act. The ESPR nevertheless already specifies the main categories of information that may form part of the DPP, including product and

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economic operator identification, product-specific performance and lifecycle information, information on substances of concern, and information required under other applicable Union legislation.The following table structures these requirements according to the relevant ESPR provisions.

Table : Overview of horizontal ESPR information requirements.

Category	Information requirements	Legislation	Level of disclosure
Product and producer identification	Unique product **identifier**; Global Trade Identification Number (GTIN) or equivalent; relevant commodity codes, such as a **TARIC** code	ESPR, Annex III(b)–(d)	Product
Product and producer identification	Information related to the manufacturer, such as its unique **operator identifier**; unique operator identifiers other than that of the manufacturer;	ESPR, Annex III(g)–(h)	Operator
Product and producer information	name, contact details and unique operator identifier of the economic operator established in the Union responsible for the product	ESPR, Annex III(k)	Operator
Product and producer identification	unique **facility identifiers**	Annex III(i)	Facility
Product and producer identification and information	Information related to the **importer**, including EORI number;	ESPR, Annex III(j)	Importer
Product-specific information parameters	Information on the performance of the product in relation to one or more of the product parameters referred to in Annex I, including a **repairability score, durability score, carbon footprint or environmental footprint**	ESPR, Article 7(2)(b)(i)	Product
Product-specific information parameters	Information on how to **install, use, maintain and repair** the product; collection for **refurbishment or remanufacture**; how to **return or handle the product at end-of-life**	ESPR, Article 7(2)(b)(ii)	Consumers / professional actors
Product-specific information parameters	Information for treatment facilities on **disassembly, reuse, refurbishment, recycling, or disposal at end-of-life**	ESPR, Article 7(2)(b)(iii)	Treatment facilities
Information on substances of concern	SoC **name** or numerical code; **location** within the product; **concentration**, maximum concentration or concentration range of substances of concern	ESPR, Article 7(5)(a)–(c)	Product / components

Category	Information requirements	Legislation	Level of disclosure
Information on substances of concern	Instructions for the **safe use** of the product; information for **disassembly, preparation for reuse, reuse, recycling and environmentally sound management at end-of-life**	ESPR, Article 7(5)(d)–(e)	Users / treatment facilities
Information requirements under other Union law	Information required by other Union law; **compliance documentation and information (**declaration of conformity, technical documentation); **manuals, warnings, safety info.**	ESPR, Annex III(a), (e)–(f)	Product

Furniture products are already subject to information requirements under other EU legislation, covering, inter alia, product safety, chemicals, materials, timber traceability, consumer information and specific product characteristics, see next chapter on other Union law.

6.1.2 Overview of other Union law information (OUL) requirements

Beyond the ESPR, establishing the horizontal mandatory requirements, other regulatory frameworks impose requirements for furniture products. This section presents the legislation that defines information disclosure obligations in other Union law. While this does not aim to be an exhaustive review of all legislation on the furniture sector (covered in Section 4 of the preparatory study), the data points listed in Fehler! Verweisquelle konnte nicht gefunden werden. have been identified as relevant in alignment with the main preparatory study.

Table 6-1: Overview of information requirements in EU legislation.

Information requirements	Legislation / regulatory framework	Level of disclosure	Status	Relevance for furniture DPP
Candidate List substance name and information sufficient to allow safe use, including at least the name of that substance	REACH Regulation (EC) No 1907/2006, Article 33(1)	Professional recipient / supply chain	Mandatory where an article contains an SVHC above 0,1% w/w	Yes
Candidate List substance name and safe-use information	REACH, Article 33(2)	Consumer	Mandatory on request, free of charge, within 45 days	Yes

Information requirements	Legislation / regulatory framework	Level of disclosure	Status	Relevance for furniture DPP
Safety data sheet in accordance with Annex II	REACH, Article 31	Recipient of a substance or mixture	Mandatory where a qualifying substance or mixture is supplied, for example an adhesive or repair mixture	No; link to the separate chemical product
Statement “exclusively for outdoor use”	REACH, Annex XVII, entry 77	Product / label	Mandatory from 6 August 2026 where the outdoor-use derogation from the formaldehyde emission restriction is relied upon	Yes, conditional
Product identifier; supplier name, address and telephone number; nominal quantity	CLP Regulation (EC) No 1272/2008, Article 17	Hazardous substance or mixture packaging	Mandatory where a hazardous substance or mixture is supplied with the furniture	No; separate chemical-product label
Hazard pictograms; signal word; hazard statements; precautionary statements; supplemental information	CLP, Articles 17–25	Hazardous substance or mixture packaging	Mandatory according to classification	No; physical CLP label remains necessary
Unique Formula Identifier	CLP, Article 25(7) and Annex VIII	Mixture label / packaging	Mandatory for mixtures subject to Annex VIII	No; separate mixture identifier
Harmonised composition and toxicological information	CLP, Annex VIII	Poison-centre notification	Mandatory for hazardous mixtures within scope	No; authority system
Type, batch or serial number, or another element enabling product identification	GPSR Regulation (EU) 2023/988, Article 9(5)	Product; exceptionally packaging or accompanying document	Mandatory	Yes, core identifier
Manufacturer’s name, registered trade name or trade mark; postal and electronic address	GPSR, Article 9(6)	Product; exceptionally packaging or accompanying document	Mandatory	Yes, core operator information

Information requirements	Legislation / regulatory framework	Level of disclosure	Status	Relevance for furniture DPP
Importer's and EU responsible person's identification and contact details	GPSR, Articles 11 and 16	Product, packaging or accompanying document	Mandatory where applicable	Yes, conditional
Clear instructions and safety information in a language easily understood by consumers	GPSR, Article 9(7)	Product / accompanying documentation	Mandatory where necessary for safe use	Yes, conditional
Manufacturer's details; EU responsible person's details; product image and identifier; applicable warnings or safety information	GPSR, Article 19	Distance-sales offer	Mandatory	Yes, except sales image may remain external
Packaging-material identification code and abbreviation	Packaging Directive 94/62/EC, Article 8; Decision 97/129/EC	Packaging	Voluntary under the current identification system; transitional framework	No; separate packaging layer
Harmonised label containing information on the material composition of packaging	PPWR Regulation (EU) 2025/40, Article 12(1)	Packaging	Upcoming: from 12 August 2028 or 24 months after the relevant implementing act enters into force, whichever is later	No; separate packaging layer
Label indicating that packaging is reusable; QR code or other standardised digital data carrier providing reuse-system information	PPWR, Article 12(2)	Packaging	Upcoming where packaging is reusable	No; packaging-specific data carrier
Manufacturer's or importer's name, registered trade name or trade mark, postal address and electronic means of communication	PPWR, Articles 15 and 18	Packaging or accompanying documentation, as permitted	Mandatory from the applicable PPWR date where the operator is involved	No; packaging-operator information (EUR-Lex)

Information requirements	Legislation / regulatory framework	Level of disclosure	Status	Relevance for furniture DPP
Article and complex-object identification; article category	Waste Framework Directive 2008/98/EC, Article 9(1)(i); SCIP	ECHA SCIP database	Mandatory where an SVHC exceeds 0,1% w/w	Yes, restricted
Candidate List substance name and concentration range	Waste Framework Directive; SCIP information requirements	ECHA SCIP database	Mandatory if applicable	Yes, restricted
Material or mixture category; location of the substance; safe-use instructions	Waste Framework Directive; SCIP information requirements	ECHA SCIP database	Mandatory if applicable	Yes, for dismantling and waste treatment
Description, including trade name and type, of the relevant product; quantity	EUDR Regulation (EU) 2023/1115, Article 9	Due-diligence records / information system	Upcoming for covered wooden furniture	Yes, conditional
Country of production; common and full scientific name of the wood species	EUDR, Article 9	Due-diligence records / information system	Upcoming if applicable	Yes, conditional
Geolocation of all plots of land; date or time range of production	EUDR, Article 9	Information system / authorities	Upcoming if applicable	Yes, restricted; batch or shipment level
Name, postal address and email address of suppliers and business customers	EUDR, Article 9	Supply chain / authorities	Upcoming if applicable	Conditional; restricted
Adequately conclusive and verifiable information that the products are deforestation-free and produced in accordance with relevant legislation	EUDR, Articles 9–11	Due-diligence records / authorities	Upcoming if applicable	Yes; evidence or credential reference
Due-diligence statement reference number	EUDR, Articles 4 and 33	Information system / supply chain	Upcoming if applicable	Yes; resolvable reference

Information requirements	Legislation / regulatory framework	Level of disclosure	Status	Relevance for furniture DPP
EUDR information package	EUDR	Various	Applicable from 30 December 2026; generally from 30 June 2027 for qualifying micro and small operators	Conditional on product scope
Textile fibre names and percentages by weight	Textile Labelling Regulation (EU) No 1007/2011, Articles 5–11 and 14	Product	Mandatory for furniture coverings containing at least 80% textile components by weight	Yes, if the furniture covering is within scope
Statement “Contains non-textile parts of animal origin”	Textile Labelling Regulation, Article 12	Product	Mandatory if applicable	Yes, conditional
Contains non-textile parts of animal origin	Textile Labelling Regulation	Product	Mandatory if applicable	Yes, conditional
Repairer’s identity, address, telephone number and email address; identification of the good	Right to Repair Directive (EU) 2024/1799, Article 4 and Annex I	European Repair Information Form	Voluntary for furniture; prescribed content if the form is used	Partly; for item-level granularity
Nature of the defect; type of repair proposed; repair price or calculation method; maximum price	Right to Repair Directive, Annex I	Repair offer	Voluntary for furniture; prescribed content if the form is used	Partly; for item-level granularity; for defect and repair record only
Time required; temporary replacement product; handover place; ancillary services and costs; validity period	Right to Repair Directive, Annex I	Repair offer	Voluntary for furniture; offer conditions remain valid for at least 30 days	No; transaction-specific

Information requirements	Legislation / regulatory framework	Level of disclosure	Status	Relevance for furniture DPP
Proportion of turnover derived from Taxonomy-eligible and Taxonomy-aligned economic activities	Taxonomy Regulation (EU) 2020/852, Article 8; Delegated Regulation (EU) 2021/2178	Company / management report	Mandatory for undertakings within the Article 8 reporting scope	No; company-level KPI
Proportion of capital expenditure and operational expenditure associated with eligible and aligned activities	Taxonomy Regulation; Delegated Regulation (EU) 2021/2178	Company / management report	Mandatory for undertakings within scope, subject to applicable materiality provisions	No; company-level KPI
Nature of eligible and aligned activities; accounting policy; methodology; assessment of technical screening criteria and avoidance of double counting	Delegated Regulation (EU) 2021/2178, Annex I	Company / management report	Mandatory where applicable	No; company-level methodology
Declaration of performance and conformity	Construction Products Regulation (EU) 2024/3110	Product documentation	Mandatory only where the furniture qualifies as a construction product and the applicable conditions are met	Yes, conditional; preferably linked to the CPR information system
Unique identification code of the product type; intended use; manufacturer and authorised representative information	Construction Products Regulation	Product / documentation	Mandatory if applicable	Yes, conditional
Declared performance for essential characteristics and environmental sustainability characteristics	Construction Products Regulation	Declaration / documentation	Mandatory according to the applicable harmonised technical specification	Yes, conditional

Information requirements	Legislation / regulatory framework	Level of disclosure	Status	Relevance for furniture DPP
CE marking; instructions for use and safety information	Construction Products Regulation	Product / documentation	Mandatory if applicable	Yes, conditional; physical marking remains necessary
Statement that the treated article incorporates biocidal products; biocidal property attributed to the article	Biocidal Products Regulation (EU) No 528/2012, Article 58(3)	Product label	Mandatory where a biocidal claim is made or the active-substance approval requires labelling	Yes, conditional
Names of all active substances contributing to the claimed property	Biocidal Products Regulation, Article 58(3)	Product label	Mandatory if applicable	Yes, conditional
Names of nanomaterials followed by the word "nano" in brackets; relevant instructions and precautions	Biocidal Products Regulation, Article 58(3)	Product label	Mandatory if applicable	Yes, conditional
Information on the biocidal treatment	Biocidal Products Regulation, Article 58(5)	Consumer	Mandatory on request, free of charge, within 45 days	Yes; DPP could provide direct access

6.1.3 Overview of international legislation

Data point / disclosure	Legislation / regulatory framework	Level of disclosure	Status	Relevance for furniture DPP
Scientific name, description and quantity of the specimen; source and purpose codes; country of origin, export or re-export	CITES; Regulation (EC) No 338/97; Regulation (EC) No 865/2006	Customs permit / certificate	Mandatory where the listed species and its annotation cover the furniture or timber product	Yes, conditional; restricted

Data point / disclosure	Legislation / regulatory framework	Level of disclosure	Status	Relevance for furniture DPP
Import, export or re-export permit or certificate number; applicant, exporter, importer and consignee information	CITES; EU Wildlife Trade Regulations	Customs permit / certificate	Mandatory if applicable	Yes; reference number rather than full permit
Nature and size of a stockpile exceeding 50 kg and consisting of, or containing, a substance listed in Annex I or II whose use is permitted	Stockholm Convention; POPs Regulation (EU) 2019/1021, Article 5(2)	Competent authority	Mandatory if the stockpile conditions are met	No; operator or waste-management information; information on POPs included though ESRP Article 2(27)(c)

6.2 Voluntary schemes

Voluntary sustainability schemes are relevant to a furniture DPP not as legal instruments, but as pre-existing sources of verified data that could populate DPP information fields without duplicating assurance work. The voluntary schemes reviewed below cluster into three functional groups that map unevenly onto the information requirements a furniture DPP under ESPR would need to hold:

- **Product-level** (e.g. EU Ecolabel, Nordic Swan, Blue Angel, Möbelfakta)
- **material- or component-level** (e.g. FSC/PEFC, GOTS/GRS/RCS, GOLS, ISCC+, RecyClass)
- cross-sectoral footprint or corporate-level (e.g. EPD, PEF, EcoVadis)

This layering is directly relevant to DPP design, since ESPR information requirements are set at product level but are substantiated, in practice, by evidence generated at material or component level. A DPP data model that mirrors this layering (product-level summary fields populated from underlying, component-level certificates) needs to be considered for this purpose.

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6.2.1 Overview of voluntary schemes

Table 6-2 below screens 30 voluntary schemes cited by stakeholders in the survey and assesses each on five points: level of disclosure, verification and geographic scope, data types covered, market uptake and policy referencing. Each scheme's methodological basis (e.g. ISO 14024 Type I, EN 15804, mass-balance chain-of-custody) and administering body are given in brackets after the scheme name where relevant.

Level of disclosure is indicated (product-, material- or component-level) because furniture BOMs are inherently multi-component and most existing certification activity happens at the component level rather than on the finished product.

Verification and geographic scope merges two dimensions that in practice determine transferability: who verifies the claim (independent third party, industry-administered body, or established methodology without certification) and where the scheme operates (EU-wide, national, or third country).

Data points covered shows which scheme already covers product aspects listed in ESPR Article 5(1). The mapping indicates that the sector already generates most DPP-relevant data types. One constraint lies in inconsistent threshold values and calculation bases across schemes rather than in data availability.

Market uptake and policy referencing are reported qualitatively from stakeholder responses. No quantitative market-share data (certified units or certified turnover share) was available for any scheme, which remains an evidence gap. Policy referencing is uneven: only the EU Ecolabel has a direct EU legal basis, national Type I labels derive their weight from national procurement policy, and material-level schemes are referenced mainly indirectly, as accepted verification evidence within product-level schemes rather than by policy instruments themselves.

The relevance for a furniture DPP is qualitatively rated (low/medium/high), assessed against verification tier, alignment with the EU furniture market, and compatibility with a component-level DPP data structure.

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Table 6-2: Screening of voluntary schemes mentioned by stakeholders

Scheme (basis)	Disclosure level	Verification / reliability/scope	Data points covered	Policy referencing	Market uptake	DPP relevance
EU Ecolabel-Furniture; (Decision (EU) 2016/1332; ISO 14024)	Product	Third-party; ISO 14024 Type I; high reliability; EU/EEA	SoC; sourcing; recycled content; emissions; durability; 5-year guarantee; repair/disassembly	EU legal instrument; EU GPP; proposed ESPR benchmark	Low in practice	High; broad EU benchmark
Nordic Swan- Furniture and fitments v6.0 (ISO 14024)	Product	Third-party; ISO 14024 Type I; high reliability; Nordic region	SoC; certified wood; recycled/renewable content; separability; durability; guarantee; spare parts	Nordic public procurement	Strong regional recognition	High; detailed circular-design criteria
Blue Angel DE-UZ 117 / DE-UZ 38 (ISO 14024)	Product, differentiated by material share	Third-party; ISO 14024 Type I; high reliability; Germany	SoC; formaldehyde/VOC; sustainable wood; durability; wear parts; recyclability	German federal ecolabel and procurement	Established nationally	High; detailed material and emissions criteria
Austrian Ecolabel UZ 06 / UZ 54 / UZ 34 (ISO 14024)	Product, differentiated by furniture type	Third-party; ISO 14024 Type I; high reliability; Austria	SoC; emissions; material composition; fitness for use; design; disassembly; ergonomics	Austrian public procurement	Moderate nationally	Medium-high; segment-specific criteria
Golden M / Möbel Schadstoffgeprüft / RAL-GZ 436	Product	Third-party; Germany	Safety; emissions; durability; foam fatigue; abrasion; circularity	RAL quality-mark system; German market	Established nationally	High for durability; circularity through RAL-GZ 436

Scheme (basis)	Disclosure level	Verification / reliability/scope	Data points covered	Policy referencing	Market uptake	DPP relevance
Möbelfakta, including READY; (ISO 14024)	Product and component	Third-party; ISO 14024 Type I; high reliability; Nordic region	Durability; safety; chemicals; spare parts; packaging; supply-chain due diligence	Nordic public procurement; ADDA	Widely used in procurement	High; component evidence and BOM integration
NF Ameublement / NF Environnement Ameublement ; (ISO 14024)	Product, differentiated by use setting	Third-party; ISO 14024 Type I; high reliability; France	Safety; dimensions; durability; emissions; environmental criteria	French official ecolabel and procurement	Established nationally	Medium-high; useful product segmentation
FEMB level (FEMB Standard 2023)	Product; office and non-domestic	Third-party; Europe	SoC; recycled content; LCA; disassembly; material marking; spare parts; social criteria	Contract-furniture tenders	Sector-specific	High; detailed disassembly and marking criteria
BIFMA LEVEL (ANSI/BIFMA e3)	Product; some facility/company criteria	Third-party; mainly North America	Materials; energy; health; environment; social responsibility	No direct EU policy reference	Limited in Europe	Low-medium; multi-attribute precedent
Cradle to Cradle Certified	Product	Third-party; international	Material health; circularity; climate; water/soil; social fairness	Recognised in building-rating systems	Used by some EU manufacturers	Medium-high; broad evidence framework
FSC / PEFC Chain of Custody	Material, product claim and operator	Third-party; international	Sustainable wood sourcing; CoC; material claim	Accepted under ecolabels and procurement; supports EUDR evidence	High	High; timber sourcing and traceability

Scheme (basis)	Disclosure level	Verification / reliability/scope	Data points covered	Policy referencing	Market uptake	DPP relevance
Bois de France	Wood material and origin claim	Third-party; France	French origin; traceability	French sourcing and selected bonus contexts	Niche	Low-medium; origin data only
STIP	Company	Third-party; Netherlands	Exclusive use of accepted certified timber	Dutch TPAC procurement	Niche	Low; company-level sourcing assurance
OEKO-TEX Standard 100 / Leather Standard	Textile or leather component	Third-party; international	Compliance with harmful-substance limits; product classes	Accepted as evidence under several labels	High	Medium-high; compliance evidence, not full substance disclosure
GOTS	Textile component	Third-party; international	Organic fibre content; chemicals; environmental and social processing criteria	Accepted under some ecolabels	Moderate	Medium; upholstery-textile evidence
ERTS – Ecocert	Textile component	Third-party; international	Recycled, renewable or natural fibres; traceability; environmental/social criteria	No significant policy reference	Low	Medium; material-content evidence

Scheme (basis)	Disclosure level	Verification / reliability/scope	Data points covered	Policy referencing	Market uptake	DPP relevance
GRS / RCS	Material and product claim	Third-party; international	Recycled content and CoC; GRS also covers chemicals, environment and social criteria	Recycled-content claim substantiation	Moderate-high	Medium-high; direct recycled-content evidence
GOLS	Latex component	Third-party; international	Certified organic latex; processing; environmental and social criteria	No significant policy reference	Niche	Medium; latex composition and sourcing
ISCC PLUS	Site, supply chain and material claim	Third-party; international	Bio-based and recycled feedstocks; segregation, blending or mass-balance CoC	Used for voluntary circular-material claims	Moderate in chemicals	Medium; attribution method must be disclosed
RecyClass	Plastic product and supply chain	Third-party; Europe	Recycled content and traceability; recyclability methodology mainly for packaging	EU industry initiative	Growing	Medium-high for recycled content; low for furniture recyclability
LNE-MPR	Plastic product or product range	Third-party; France	Declared recycled-plastic percentage	French claims and eco-modulation where accepted	Niche	Medium; recycled-content evidence
CARB ATCM	Composite wood and finished products	Mandatory in California	Formaldehyde emissions	California legal requirement	Limited in Europe	Low-medium; emissions precedent

Scheme (basis)	Disclosure level	Verification / reliability/scope	Data points covered	Policy referencing	Market uptake	DPP relevance
CertiPUR	Flexible PU foam component	Industry certification with laboratory testing; Europe	Restricted substances; VOC emissions	No direct policy reference	Widely used for PU foam	Medium-high; foam-specific evidence
Greenguard / Greenguard Gold	Product or material	Third-party; international	VOC and formaldehyde emissions	May support building-rating requirements	Moderate in contract markets	Medium; indoor-air data
Solar Impulse Efficient Solutions	Technology or solution	Independent assessment; international	Environmental benefit and economic viability	No furniture-policy reference	Very low in furniture	Low; not a furniture-product scheme
EPD (ISO 14025; EN 15804 for construction products; applicable PCR)	Product or product family	Third-party verified; international	Quantified life-cycle environmental impacts	Building schemes; construction products where EN 15804 applies; selected GPP criteria	Growing in contract furniture	High in principle; PCR-dependent comparability
PEF Method; (Recommendation (EU) 2021/2279)	Calculation methodology	EU methodology; not certification	Environmental footprint across 16 impact categories	Official EU methodology	Limited in furniture; no furniture PEFCR	High in principle; limited comparability without PEFCR

Scheme (basis)	Disclosure level	Verification / reliability/scope	Data points covered	Policy referencing	Market uptake	DPP relevance
French environmental labelling for furniture	Product methodology under development	National; France	Aggregated life-cycle environmental result	French environmental-labelling programme	No established uptake yet	Medium, future; consumer-interface precedent
EcoVadis	Company	Market-driven rating; international	Corporate environment; labour; ethics; procurement	Supplier qualification and due diligence	Common in B2B procurement	Low-medium; company-level, not product-level

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6.2.2 Evaluation and conclusions towards voluntary schemes

The review shows that the furniture sector already collects a broad range of product-, component- and material-level information through voluntary ecolabels, quality marks, material certifications, chain-of-custody systems, emissions testing and environmental declarations. These schemes show that source information relevant to potential DPP requirements already exists for a number of data categories and is, in some market segments, routinely verified. This should, however, **not be interpreted as indicating that these data are already available in the format, granularity or digital structure required for a future furniture DPP**.

Actual implementation of DPPs in the furniture sector remains at an early stage and is not yet widespread. Furniture-X, established in 2024, is developing a sectoral data ecosystem and has demonstrated first digital furniture twins, including showcases by Polipol and Nolte Küchen, followed by pilot projects. The initiative explicitly addresses implementation in the SME-dominated furniture sector. R-evolve is likewise testing DPP implementation with five furniture manufacturers, with further pilots planned. These developments indicate growing practical experience but remain pilots rather than evidence of sector-wide DPP readiness. By comparison, cross-company data ecosystems such as Catena-X in the automotive sector are substantially further developed and demonstrate how standardised product-passport data can be exchanged across multiple supply-chain tiers. The relevance of scalable approaches is particularly important given that the EU furniture industry is dominated by SMEs and micro firms.

Due to the comparatively high uptake of product-level ecolabels, quality marks and procurement-oriented certification schemes, the following information is already collected within relevant market segments, generally at model or product-family level. This information is generally supported by technical specifications, standardised tests and certification documents.

Information on recycled content, material origin, formulations and production locations is also collected through material certifications, chain-of-custody systems and supplier declarations. However, this information often relates to specific components, suppliers or material lots and is not always systematically linked to the relevant furniture model or production batch. Moreover, the information collected for certification purposes does not necessarily correspond to the definitions, level of detail, granularity or evidence that may be required under the ESPR.

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Table 6-3: Overview of data points in voluntary schemes, with related granularity level, uptake indication.

Data point(s)	Typical level	Current practice / uptake	Certification schemes
Product type, dimensions, intended use	Model / product family	High uptake: commonly documented in product specifications and conformity assessments	EU Ecolabel, Nordic Swan, Blue Angel, Austrian Ecolabel, NF family
Durability, safety, fitness for use	Model / product family	High uptake: commonly verified through standardised EN, ISO or DIN testing, particularly for contract and institutional furniture	Nordic Swan, Golden M, Möbelfakta, NF family, FEMB Level
Repairability, disassembly, spare parts	Model	Moderate uptake: covered by several major product-level schemes, but not consistently applied across the market	EU Ecolabel, Nordic Swan, Blue Angel, FEMB Level
Material and component composition	Model / component	High uptake: commonly collected through bills of materials, product specifications and supplier declarations, although the level of detail varies	EU Ecolabel, Nordic Swan, Blue Angel, FEMB Level, Cradle to Cradle
Substances of concern	Material / component / product	High uptake: commonly assessed through substance restrictions, supplier declarations and laboratory testing; detailed substance data are not always disclosed	EU Ecolabel, Nordic Swan, Blue Angel, Golden M, OEKO-TEX, CertiPUR
VOC and formaldehyde emissions	Material / component / product	High uptake for relevant materials: commonly tested for wood-based materials, coatings, foams and selected finished products	EU Ecolabel, Blue Angel, Austrian Ecolabel, CertiPUR, Greenguard
Wood sourcing and traceability	Material / supplier / batch	High uptake: commonly verified through chain-of-custody certification and required by several ecolabels	FSC, PEFC, STIP, EU Ecolabel, Nordic Swan, Blue Angel
Recycled, renewable or organic content	Material / component / batch	Moderate uptake: increasingly collected and verified, but calculation and chain-of-custody methods differ	FEMB Level, Nordic Swan, GRS/RCS, LNE-MPR, ISCC PLUS, GOTS, GOLS

Data point(s)	Typical level	Current practice / uptake	Certification schemes
Recyclability and material marking	Model / component	Moderate uptake: covered by selected schemes through separability, disassembly and plastic-part marking; no harmonised furniture method exists	FEMB Level, Nordic Swan, RAL-GZ 436; RecyClass mainly for recycled-content evidence
Environmental footprint	Model / product family	Low to moderate uptake: mainly reported for contract furniture and through environmental declarations; comparability remains limited	EPD, PEF Method, FEMB Level
Repair, refurbishment and condition history	Item	Low uptake: rarely collected because existing schemes mainly assess products before placing them on the market	Generally not covered

The uptake indication refers to the occurrence of these information categories in the reviewed schemes and relevant market segments; it does not represent quantified sector-wide coverage or DPP readiness.

Importantly, Table 6-3 does not imply that these voluntary data points should become mandatory DPP information. The mandatory DPP content and its required granularity will be determined by the product-specific delegated act. The ESPR also allows delegated acts to identify ecodesign-relevant information that manufacturers may include voluntarily, including information on specific voluntary labels. Mandatory information and additional voluntary or marketing information should therefore remain clearly distinguishable within the DPP.

The review therefore identifies **three distinct levels of information:**

- First, product-level information such as dimensions, durability test results, repair instructions and disassembly information is already relatively well linked to the relevant model through schemes such as the EU Ecolabel, Nordic Swan, Golden M and Möbelfakta.
- Second, material-related information such as certified wood origin, recycled content or chemical compliance is available through schemes such as FSC/PEFC, GRS/RCS, ISCC PLUS, OEKO-TEX or CertiPUR, but is often linked to a material, supplier or batch rather than directly to the final furniture product.
- Third, item-specific lifecycle information, such as repair, refurbishment or condition history, is generally not covered by the reviewed schemes.

This distinction is particularly important for substances of concern. The reviewed ecolabels and material schemes commonly demonstrate compliance with substance restrictions through supplier declarations, exclusion lists or laboratory testing. This is not equivalent to the substance-specific tracking information that may be required

under the ESPR, for example information on substance identity, location and concentration. Existing certification can therefore provide supporting evidence, but not necessarily the required DPP dataset.

The reviewed schemes also provide a clear indication of existing granularity. Product ecolabels and quality schemes mainly operate at model or product-family level. Material and chain-of-custody schemes such as FSC, PEFC, GRS/RCS and ISCC PLUS more often operate at material, supplier, transaction, lot or batch level. Item-level information is largely absent.

Where information remains constant across all units of a model, such as dimensions, repair instructions, disassembly information or standardised durability results, model-level identification may be sufficient. Where information varies with material input, supplier or production run, as can occur for recycled-content claims, certified material origin or specific certificate references, batch- or material-level linkage may be required. The reviewed voluntary schemes already provide such granularity in some cases, but these links would need to be transferred to the corresponding final-product identifier, if applicable.

The same applies to facility identification. Chain-of-custody and material certification schemes can already provide upstream traceability for certified wood, recycled feedstock or specific material claims. However, they usually verify the chain according to the scheme's own rules rather than the complete facility chain at product level. Facility identification in the DPP should therefore only be required where justified by a specific ESPR information requirement with existing certifications may provide the supporting evidence.

Finally, the reviewed schemes are relevant primarily as evidence of existing data-generation and verification practices. These are taken into account and validated in the next steps of the study.

6.3 Standardisation and existing data systems

The table below shows the standardisation bodies and existing data systems with a relevance to furniture, distinguishing product-performance standards, circularity-evaluation standards, commercial data-exchange formats and DPP-specific horizontal standards.

Table 6-4: Standardisation bodies and existing data systems.

Standard / data system	Potential DPP information covered	Expected status / ESPR basis	Readiness / adaptation needed
GS1 / CEN-CENELEC JTC 24 / EORI	Product and economic operator identification, DPP identifier, data carrier	**ESPR baseline** Arts. 9–10; Annex III(b), (g)–(k)	**High** Identifiers and technical standards commonly exist; furniture-specific granularity and carrier placement must be defined

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Standard / data system	Potential DPP information covered	Expected status / ESPR basis	Readiness / adaptation needed
ECHA SCIP / REACH supply-chain information	Substances of concern, substance location, concentration range, safe-use information	**ESPR baseline** Art. 7(2)(a), 7(5); Annex III(a)	**Medium:** existing data can partly be reused, but SCIP covers only part of the broader ESPR SoC scope and requires mapping to DPP fields
CEN/TC 207 / ISO/TC 136 (ignitability of mattresses, upholstered bed bases)	Durability, strength, safety and related product-performance information	**Potentially mandatory** Arts. 5(1)(a)–(b), 7(2)(b)(i); Annex I(a), (s)	**High-medium:** Established test methods exist; relevant results or performance classes must be translated into harmonised DPP fields
EN 17902 / CEN/TC 207 WG10 (access and remove/replace/reassemble priority parts of products)	Disassembly/ reassembly capability, repairability, maintenance and refurbishment	**Potentially mandatory** Arts. 5(1)(e)–(f), 7(2)(b)(i)–(iii); Annex I(b), (e)	**Medium:** relevant assessment methods exist, but DPP indicators, values and reporting formats still need to be defined
FSC / PEFC	Wood origin, certified content, Chain-of-Custody information	**Potentially mandatory / conditional** Art. 5(1)(j), (o); Annex I(g), (i)	**High-medium:** Mature traceability exists, but claims must be linked to the relevant furniture model, batch or material
Company BOM, PLM and supplier systems	Material and component composition	**Potentially mandatory** Art. 5(1)(j); Annex I(b), (h), (i)	**Medium:** Information generally exists, but formats, granularity and product-level allocation are not harmonised
Existing certification and Chain-of-Custody systems	Recycled content and supporting evidence	**Potentially mandatory** — Art. 5(1)(k); Annex I(h)	**Medium-low:** evidence exists for specific materials, but calculation rules and allocation to the final product require harmonisation
EN 17902 and existing EoL information	Recyclability, separability and end-of-life instructions	**Potentially mandatory** — Arts. 5(1)(m)–(n), 7(2)(b)(iii)	**Low-medium:** existing methods cover parts of the requirement; a comprehensive furniture-specific recyclability methodology is still needed

Standard / data system	Potential DPP information covered	Expected status / ESPR basis	Readiness / adaptation needed
EPD / EN 15804-related datasets / EPF data / CPR environmental data	Environmental footprint, carbon footprint and life-cycle environmental indicators	**Potentially mandatory / conditional** Arts. 5(1)(o), 7(2)(b)(i); Annex I(m)–(n) CPR Art. 15, Annex II	**Medium-low:** relevant data exist, particularly for materials and panels, but product-level calculation rules and system boundaries need harmonisation
PRICAT / commercial catalogue systems	Product, component, spare-part and commercial master data	**Supporting information** Art. 7(2)(b)(ii); Annex I(b)	**Medium:** existing B2B formats can support data exchange, but require mapping to harmonised DPP fields and identifiers

Overall, the analysis of existing standards and data systems in the DPP context shows that potential furniture DPP implementation aspects are (partially) covered:

- Product-performance and circularity standards are supported though harmonised methods for generating and verifying data
- Upstream traceability and regulatory information are already supported by established systems such as FSC/PEFC and SCIP
- Identification is supported by established identifier standards and systems, such as ISO/IEC 15459 and GS1 GTIN/GLN.
- The horizontal DPP standards developed by CEN/CENELEC JTC 24 provide the common technical framework for integrating such information into interoperable DPP systems.

The main challenge is therefore the mapping and linking of existing information to the DPP, rather than its wholesale replacement. Most existing systems were developed for specific purposes and differ in scope, granularity, identifiers and data formats. Effective reuse will consequently depend on whether information can be reliably linked to the relevant product, model, batch, component or material and whether the underlying evidence can be retained. Where this linkage is established, existing standards and systems can substantially reduce additional data-generation and reporting efforts.

7 Step A4: Market-driven industry practices (Step A.4: Assess data collection status quo)

Beyond the legal disclosure obligations analysed in the preceding section, the definition of DPP content for furniture must be grounded in an understanding of how information is actually generated, exchanged and verified across the sector. This assessment draws on the stakeholder consultation, complemented by industry position papers, pilot-project reports and academic literature to characterise the next six sub-chapter

(7.1) who provides which information along the value chain, (7.2) in what format and through which systems, (7.3) using which definitions and classification schemes, (7.4) at what quality and granularity, (7.5) through which verification mechanisms, and (7.6) subject to which barriers. The furniture sector displays a considerably wider heterogeneity than more consolidated sectors such as electronics or batteries, reflecting its fragmented industrial structure, dominated by micro-enterprises and SMEs, which account for the vast majority of EU furniture companies (European Furniture Industries Confederation [EFIC], 2026) plus the multi-material nature of furniture products, and the coexistence of industrial serial production with bespoke, craft-based manufacturing.

7.1 Information availability and needs/gaps across the value chain

Stakeholder input indicates substantial differences in the availability, granularity and digital maturity of information across the furniture value chain. Digitally mature manufacturers may manage product structures, technical specifications and production data through PLM, ERP, PIM or related systems, whereas information exchanged between organisations frequently remains fragmented across supplier documents, technical and safety data sheets, certificates, PDFs, spreadsheets and manually exchanged information (sofia research group, 2026; AIDIMME, 2026; Inter IKEA Group, 2026). Supplier-level material, chemical and environmental information is particularly uneven. Detailed composition or process information may be unavailable downstream or subject to confidentiality restrictions. IVK (2026), for example, states that full formulation disclosure should be avoided due to confidential business information, while Teknos Oy (2026) notes that the legal cut-offs in SDS determine the level to which product composition can be disclosed.

Information needs differ systematically according to actor and function:

- **Repair, refurbishment and reuse** activities require detailed component-level information, including material composition per component, fastening and joining methods, spare-part identifiers and compatibility, disassembly instructions and, where relevant, repair, refurbishment and replacement history. Evervel (2026) explicitly notes that current component-level information are insufficient to operationalise repair or sorting, while RREUSE (2026) identifies construction details, assembly/disassembly instructions, spare-part information and repair and maintenance information as relevant. **Availability**: Much of the underlying information is generated by manufacturers or service actors, e.g. BoMs, technical specifications, assembly information and some spare-part or servicing data, but component-level repair/disassembly information and intervention histories are not consistently available or transferred.
- **Recyclers and end-of-life operators** require material and chemical composition, substances of concern or other contaminants, joining and disassembly information and information relevant to selecting appropriate reuse, separation and recycling routes (AIDIMME, 2026; Ecomaison, 2026).

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Availability: Material specifications, SDS, BoMs and some chemical information are generated upstream. However, detailed product-specific composition, contaminants and disassembly/separation information are generally not transferred to end-of-life actors.

- **Consumers** and consumer organisations emphasise information supporting purchasing and use decisions. BEUC (2026) identifies expected lifetime, warranty conditions, maintenance instructions, repair options and whether components can be replaced as relevant pre-purchase information. ANEC (2026) similarly identifies durability, safety, warranty conditions, repairability and composition and stresses that essential information on safety, hazard warnings, composition relevant to health, and maintenance and repair instructions should remain physically present on the product. **Availability:** Basic product, warranty, use and maintenance information is already generated and commonly available, whereas durability, repairability, spare-part availability as well as expected lifetime and product (item) history information are less available.
- **Market-surveillance** and other competent authorities require access to the evidence needed to verify compliance, including test reports, conformity assessment documentation, certification records, technical files, material declarations and substantiation of environmental claims (German Federal Environment Agency, 2026). **Availability**: Much of this evidence is already generated by manufacturers and suppliers, but the survey indicates gaps in structured and direct access.

The responses also indicate substantial differences in digital maturity:

- Frontrunner companies may already operate integrated PLM, ERP or product-passport-like information systems; Inter IKEA Group (2026), for example, reports having developed a comprehensive product passport model for several years.
- By contrast, many SMEs and craft manufacturers continue to rely on supplier documents, PDFs, spreadsheets, invoices or project files rather than structured product-level databases. TSD (2026) describes information exchange as dominated by PDF or even paper-based formats and identifies a lack of digital systems, limited staff capacity, high administrative effort and fragmented supplier information as key barriers.
- AIDIMME (2026) similarly finds that larger manufacturers generally have more integrated digital systems, while SMEs often rely on spreadsheets, PDFs and manually exchanged information.

A structurally distinct situation applies to bespoke and small-series furniture. Craft-based products may be produced as one-off items or in very small quantities, designed for a specific customer, room or building situation, and often installed and repaired by the same workshop. In these cases, producer and customer are usually in direct contact, while relevant data may be available in invoices, supplier documents or project files rather than structured product-level databases. This differs from serial production and needs to be considered when defining appropriate data structures and granularity requirements (Bayerischer Handwerkstag, 2026; Bundesverband Tischler Schreiner Deutschland, 2026; Confartigianato Imprese, 2026).

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The following table provides a holistic overview of survey responses for each lifecycle stage, indicating the available information (second column) and information that is currently not available at this stage (data gaps) / needed by other actors (third column).

Potential ESPR relevant information are highlighted in bold. See chapter ANNEX 11.1. on the allocation between potential ESPR requirements and survey-stated information availability/needs. Bold text in the availability column means, that this is already reported as available at least partly; bold text in the needs column indicates potentially ESPR-relevant information that remains missing, incomplete or insufficiently accessible.

Some information categories, particularly environmental-performance, material-composition and circularity-related data, are relevant across several value-chain stages and may therefore appear more than once. The table provides a comprehensive overview of the stakeholder responses by showing where information is currently available and where gaps remain for each stage. A holistic overview can be found in ANNEX 11.1.

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Table 7-1: Information availability across the value chain. Readiness is indicated, based on potentially relevant ESPR information (highlighted in bold)

Value-chain stage	Information currently available / provided at this stage	Information currently not available at this stage/ needed by other actors (data gaps)	Readiness to provide ESPR-relevant information
Raw material supply/extraction	**FSC/PEFC certificates; origin/traceability for certified timber**; safety/technical data sheets available mainly indirectly downstream	**Harmonised environmental-footprint data; comprehensive/comparable origin and traceability data**; more detailed chemical data	*Medium* for certified wood origin; **Low** for environmental/chemical data
Intermediate materials and components	Technical/Safety data sheets; **certificates; some LCA/EPD data**; sector-specific datasets; ChemX/DMP only as emerging/pilot approaches	**Harmonised environmental-footprint data; substances-of-concern and recycled-content data; material composition linked to components**	*Medium* for technical data; **Low** for environmental/circularity data
Design and product development	CAD data and BoMs for internal use; **occasional EPD/environmental-performance data**	Standardised digital product data; **durability and repairability data; supplier material-composition and environmental-footprint data**	*High* for large manufacturers with PLM; *Low* for SMEs/craft producers
Furniture manufacturing	BoMs and CAD; **VOC-emission data; quality-control records**; material input, offcuts and energy use mainly at company level	**Design-for-disassembly information; repair instructions**; circularity indicators; product-level rather than company-level production data	*High* for commercial/technical data; *Low* for environmental/circularity data among SMEs
Finishing, quality control and packaging	Technical data sheets; **certificates for coatings and finishes**; packaging materials and quantities	Packaging quantities in structured form; **VOC/emission and finish-durability data; environmental-performance data linkable to the product/DPP**	*Medium*: Data exist but are not structured for automated exchange
Distribution and logistics	Transport distance; **country of production**; some transport environmental data	Fuel/energy consumption; emission factors and average distances; traceability beyond direct suppliers	*Low*
Wholesale and retail	Product specifications and marketing claims; transport and packaging information	**Product conformity and environmental-performance information; care, repair and reuse guidance**	*Medium* for commercial data; **Low** for sustainability/circularity data
Use phase and after-sales services	Product and sales information; **warranty information; maintenance and repair information** at company level	**Spare-part availability; standardised repair manuals; repair history**	*Low*
Repair and maintenance	**Servicing records and replaced-component information**, shared selectively	**Spare-part availability; disassembly instructions; joining methods; repair history**	*Low*

Value-chain stage	Information currently available / provided at this stage	Information currently not available at this stage/ needed by other actors (data gaps)	Readiness to provide ESPR-relevant information
Secondary market, reuse and refurbishment	**Maintenance recommendations and warranty information**	**Condition/history information; repair/refurbishment records; material composition; spare-part availability; disassembly information**	*Low*
End-of-life management and recycling	Properties of sorted fractions, generated after manual sorting	**Material composition** and contaminants; **disassembly information; recycling/separation-route information**	*Very low*
Market surveillance and customs authorities	**Compliance documentation**, generally collected on request through national procedures	Structured, machine-readable access to **compliance and environmental-performance information** and circularity information	*Low*

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7.2 Data formats and digitalisation

Digitalisation levels vary with company size and market segment. Large, vertically integrated manufacturers and retailers (e.g., Inter IKEA Group, 2026) operate mature systems including enterprise-resource-planning (ERP), PLM and, increasingly, supplier-relationship-management (SRM) systems that provide end-to-end electronic representation of products from design through assembly and that interface with downstream after-sales and service platforms (sofia research group, 2026). By contrast, the craft and SME segment, which the German joiners' association reports as almost entirely absent of structured data standards based on a representative 2026 survey (TSD, 2026), continues to rely on paper-based or PDF documentation including invoices, delivery notes, supplier data sheets and manually maintained bills of materials (EuroCommerce, 2026; Confartigianato Imprese, 2026; Ministry of Enterprises and Made in Italy, 2026). Low digital maturity extends to the large share of subcontractors, which are themselves predominantly SMEs (EFIC, 2026; SBS, 2026). AIDIMME (2026) similarly describes a hybrid landscape combining ERP, PLM, CAD/PDM, supplier databases, spreadsheets and paper documentation, with application programming interface (API)-based or cloud-based exchange still the exception.

This digital fragmentation is compounded by weak interoperability between internal company systems and those of value-chain partners: even where an operator maintains digital records internally, these are frequently not designed for automated external exchange (EuroCommerce, 2026), forcing renewed manual re-entry of the same information at each interface. This process is also documented for the Swedish furniture sector by (Friis and Mac, 2025) and addressed experimentally through pilot DPP prototypes such as Furnipass in Belgium (WOOD.be & TripleR.io, 2026) and Trace4Value/Swepass and APPEND in Sweden (Vinnova, 2024).

7.3 Commonly used definitions, standards or classification groups

For product and location identification, GS1 standards (Global Trade Item Number (GTIN) and Global Location Number (GLN)) are widely referenced cross-sectoral identifiers, used by large manufacturers and retailers for logistics and traceability purposes (Inter IKEA Group, 2026; Ecomaison, 2026; GS1, 2026).

For customs and trade classification, the Harmonised System (HS), the EU Combined Nomenclature (CN) and TARIC codes are consistently applied (AIDIMME, 2026; EuroCommerce, 2026), alongside statistical classifications such as PRODCOM. AIDIMME (2026) notes, however, that these commercial and customs classifications are not harmonised across the sector and, critically, do not extend to sustainability-, circularity- or material-composition-related attributes, for which no single sector-wide standard currently exists.

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Material- and chemical-specific vocabularies have emerged bottom-up within sub-sectors from initiatives or pilots: the adhesives industry references the ChemX/Digital Material Passport (DMP) framework for upstream chemical data exchange (IVK, 2026; BASF SE, 2026). The flexible polyurethane foam sector, through EUROPUR's (2026) sustainability working group, has defined a dedicated set of data points (foam family, density band, isocyanate and polyol type, filler content, substances of concern) intended to support end-of-life dismantling and recycling of foam-containing furniture such as mattresses.

FSC/PEFC chain-of-custody schemes remain the dominant reference for wood-origin traceability (Nordic Swan Ecolabel, 2026; Confartigianato Imprese, 2026), reflecting obligations under the EU Deforestation Regulation and EU Timber Regulation.

Craft-sector representatives stress that none of these frameworks are designed for bespoke, project-based production, where no stable "model" comparable to industrial serial output exists (TSD, 2026; Confartigianato Imprese, 2026).

For product classification and semantics, ECLASS provides a cross-sectoral reference vocabulary used within the furniture sector alongside sector-specific formats (EFIC, 2026).

For product catalogues, the Integrated Data Model is applied in its IDM Kitchen/Bath and IDM Living variants, structuring furniture product data for catalogue exchange between manufacturers and retailers (EFIC, 2026).

For office and commercial furniture projects, the Office Furniture Modelling Language (OFML) supports product configuration and data exchange, though its use is confined to this market segment (EFIC, 2026).

For three-tier distribution structures, the ARGE format is used to exchange product data between manufacturers, wholesalers and retailers, without extending to other distribution models (EFIC, 2026).

For furniture catalogue and interior-design data, funSTEP, standardised as ISO 10303-236, provides a furniture-specific exchange format used across design and retail applications (EFIC, 2026).

For price and sales catalogue exchange, PRICAT and its customer-specific variant CSA PRICAT are used for B2B commercial data exchange between suppliers and retailers (EFIC, 2026).

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Table 7-2: Commonly used definitions, standards or classification groups

Standard or format	Function	Scope
GLN (Global Location Number)	Location identification	Cross-sectoral
GTIN (Global Trade Item Number)	Product identification	Cross-sectoral
Identification Link	Product identification and linking	Cross-sectoral
ECLASS	Product classification and semantics	Cross-sectoral
IDM Kitchen/Bath, IDM Living	Product catalogue data model	Furniture-specific
OFML (Office Furniture Modelling Language)	Product data exchange	Office and commercial projects only
ARGE format	Product data exchange	Three-tier distribution only
funSTEP (ISO 10303-236)	Furniture catalogue and interior design data	Furniture-specific
PRICAT / CSA PRICAT	Price and sales catalogue exchange	B2B commercial exchange
GS1 EPCIS / Digital Link	Supply chain traceability events and data carrier linking	Cross-sectoral
HS / CN (Combined Nomenclature) / TARIC	Customs and trade classification	Cross-sectoral
PRODCOM	Industrial production statistics classification	Cross-sectoral
NACE / CPA	Economic activity and product-by-activity classification	Cross-sectoral

Standard or format	Function	Scope
Safety Data Sheet (SDS; GHS-based; EU: REACH Annex II)	Chemical hazard and safe-use information	Cross-sectoral, chemical suppliers
ChemX / Digital Material Passport (DMP)	Upstream chemical data exchange	Sub-sector specific (adhesives, chemicals)
ECHA SCIP database format	Mandatory declaration of substances of concern in articles	Cross-sectoral, regulatory

7.4 Granularity and quality

The quality and granularity of available data varies considerably depending on the company size, product category and purpose for which the data are collected. Consistent with the pattern observed for textiles (Cirpass-2, 2025), stakeholders converge on model-level granularity as the pragmatic baseline for most DPP information, reflecting both current practice and proportionality concerns. Inter IKEA Group (2026) and EuroCommerce (2026) explicitly recommend the model level as the default, with batch-level data reserved for specific, justified traceability use cases and finer item-level tracking left voluntary given the disproportionate cost implications for a sector with limited digital maturity. AIDIMME (2026) reports that product identification, dimensions and commercial specifications are generally available at model or reference level, while bills of materials may also reach product-model granularity; by contrast, production-related data (energy use, waste generation, material consumption) are typically recorded only at batch, production-line, facility or annual aggregate level rather than per product or item. Environmental footprint data are described as the least mature category in terms of granularity: rarely calculated per at item-level, more often reconstructed from representative products, company-level aggregates or generic secondary datasets combined with proxy assumptions (sofia research group, 2026; TSD, 2026).

- **Model or reference level:** Product identity, dimensions and commercial specifications
- **Model level:** Bills of materials and component data, although configurable furniture can require configuration or order specific information.
- **Batch, production line, facility or reporting year (rather than at item level):** Production data, including energy consumption, material use and waste generation
- **Product model or product family**. Quality and safety assessments are generally associated with a
- **Batch-level:** individual test reports or shipment inspections

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- Environmental footprint information is less available, substantially less mature and is often based on representative products, selected LCA or EPD studies, annual company data or other aggregated datasets.

EFIC (2026) further specifies that a model or batch may be treated as unchanged, and its DPP data as valid, until a modification in materials, components or construction affects the reportable information, offering an operational trigger for data updates. For project-specific production typical of the custom and built-in segment, environmental and footprint data exist only at company level rather than per model or item, which SBS (2026) argues warrants simplified documentation where product-specific historical data cannot reasonably be obtained.

For bespoke and craft-made furniture, respondents note that "granularity" itself is not a meaningful concept in the same sense as for serial production, since each item can constitute its own unique configuration (Bayerischer Handwerkstag e.V., 2026; TSD, 2026), a specificity that will require differentiated treatment in the delegated act.

7.5 Verification mechanisms

No harmonised, sector-wide verification system for furniture-related data disclosures currently exists (EuroCommerce, 2026; Inter IKEA Group, 2026). Verification instead relies on a variety of complementary mechanisms (:

- supplier declarations and contractual assurances
- chain-of-custody certification (e.g., FSC/PEFC for wood),
- product- and material-level certificates (e.g., CertiPUR, OEKO-TEX for foams),
- third-party audits and management-system certification,
- laboratory testing
- independently verified environmental declarations such as Environmental Product Declarations (EPDs) (AIDIMME, 2026; sofia research group, 2026)

Each mechanism presents a distinct trade-off: internal company controls are low-cost and fast but offer limited assurance, whereas independent third-party verification provides higher credibility at a cost that is frequently prohibitive for SME and craft operators (AIDIMME, 2026; Nickel Institute, 2026). A structural limitation mentioned across submissions is that verification evidence is rarely model- or batch-specific and barely available beyond direct (tier-1) suppliers, leaving lower-tier supply-chain data largely unverifiable in practice (EuroCommerce, 2026).

For SMEs and micro-enterprises, several respondents advocate a proportionate, risk-based verification approach built on existing recognised certificates and supplier documentation rather than requiring dedicated per-model or -batch verification (TSD, 2026; Nickel Institute, 2026).

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Table 7-3: Overview of verification mechanisms, applications, qualitative assurance level and main limitation.

Verification mechanism	Typical application	Indicative assurance level	Main limitation
Supplier declaration	Material composition, substances, origin and regulatory status	Basic	Depends on supplier competence and honesty
Internal company control	Product specifications, production and quality data	Basic to moderate	Limited independence
Contractual documentation	Supplier obligations and traceability information	Moderate	Confirms contractual evidence rather than necessarily factual performance
Certificate of analysis or test report	Chemical, mechanical, VOC or flammability properties	Moderate to high	Valid only for the tested material, configuration or batch
Chain-of-custody certification	Certified forestry materials and sourcing claims	Moderate to high	Verifies a defined certification claim, not the complete DPP
Management-system or supplier audit	Organisational processes and control systems	Moderate	May not verify every product-level data point
Independent third-party verification	EPDs, selected environmental claims and certifications	High	Cost and administrative burden
Authority inspection and testing	Market-surveillance and enforcement activities	Medium	Normally selective and risk-based

Verification mechanism	Typical application	Indicative assurance level	Main limitation
Digital structural validation	Mandatory fields, units, formats and evidence links	Structural only	Cannot demonstrate that the underlying declaration/data is factually correct

Verification is further complicated by the multi-material composition of furniture, which typically combines wood-based materials, metal, plastics, foams, textiles, adhesives, coatings and fittings, each documented through a separate route, and by the predominance of PDFs, certificates and supplier declarations over structured digital data (EFIC, 2026). EFIC accordingly proposes a risk-based approach that aligns verification intensity with the type of information concerned and reuses existing mechanisms rather than mandating third-party verification of all data. EPF (2026) makes a parallel argument for wood-based panels, noting that product standards, quality-management systems, chain-of-custody certification and EPDs already cover many relevant aspects and that DPP requirements should build on these rather than duplicate them.

7.6 Barrier to data collection

Stakeholder submissions identify a consistent set of interacting legal, economic, logistical, technical and organisational barriers.

- Legal and confidentiality constraints are most frequently cited by upstream material and chemical suppliers, who are reluctant to disclose formulation, sourcing or cost-related information that could reveal competitive positioning (IVK, 2026; sofia research group, 2026; Confartigianato Imprese, 2026).
- Economic constraints centre on the cost of digital infrastructure, data verification, staff training and system integration, which weigh disproportionately on the SME- and craft-dominated structure of the sector (Ministry of Enterprises and Made in Italy, 2026; EuroCommerce, 2026; AIDIMME, 2026).
- Logistical barriers stem from the length and fragmentation of furniture supply chains, which frequently span non-EU manufacturing locations and numerous sub-suppliers with limited resources or technical capacity to structure and transmit product data (Målbar ApS, 2026; Nickel Institute, 2026).
- Technical barriers include the absence of harmonised data models, limited interoperability between heterogeneous ERP/PLM systems, and the difficulty of linking supplier-level data to specific products (AIDIMME, 2026; EuroCommerce, 2026).
- Underlying these categories, the sofia research group's (2026) analysis used Ashford's (2000) “capabilities, opportunities, willingness model” to argue that persistent data gaps are not purely technical but are stabilised by organisational routines and incentive structures: actors often possess relevant information

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internally but lack integrated, lifecycle-oriented data architectures linking sourcing, compliance and sustainability functions, while limited perceived business value and confidentiality concerns reduce willingness to share data beyond immediate commercial needs.

- Regulatory uncertainty compounds these barriers, as several respondents note that unclear or evolving requirements discourage upfront investment in data systems whose benefits materialise only in the medium to long term (Ministry of Enterprises and Made in Italy, 2026; EuroCommerce, 2026).
- EPF (2026) frames the allocation of data-provision responsibility as a barrier in its own right, arguing that manufacturers should not be required to collect information that upstream suppliers cannot reasonably provide, nor material suppliers be made responsible for information relating to the final product's use, repair or end-of-life stage, and citing the implementation of the EU Deforestation Regulation as a cautionary precedent on excessive traceability requirements and unclear allocation.
- SBS (2026) highlights the structurally different situation of the custom and built-in segment, where the same business designs, manufactures and installs the product and therefore maintains a direct relationship with the customer; information obligations here should follow the Once Only principle and the exemptions foreseen under Recital 13 of the ESPR rather than assume third-party DPP infrastructure will be used.

Taken together, these findings indicate that DPP implementation for furniture should take account of the administrative burden on SMEs, including through sufficient transition periods and targeted support measures. Where justified, individual requirements may also be phased in over time.

8 Intermediate summary Step A1-A4

The value chain shows a rather digitalised/standardised data infrastructure upstream of manufacturing on the wood/material side (FSC/PEFC, CEN/TC 207 test data), but largely non-digital data flow at three points: between material suppliers and manufacturers (still PDF/paper-based per EFIC and SBS), downstream of the point of sale (service/repair history essentially undocumented) and at end-of-life (recycling constrained more by collection infrastructure than by product design).

Two structural characteristics of the furniture sector: (1) the sector can be roughly clustered into a retail-distributed pattern and a direct SME/custom-manufacture pattern with different data-exchange topologies and (2) EPR schemes governing the end-of-life exchange point are themselves fragmented and non-harmonised across Member States, adding a governance-layer gap on top of the technical one. Both might be taken into account for the use-case definition in Step B: not assuming a single distribution topology and account for SME/microenterprise capacity constraints (85% of the sector) rather than defaulting to data infrastructure calibrated to large, digitally mature manufacturers.

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8.1 Potential data availability and needs

Table 8-1: Potential data availability and needs/gaps, barriers and indicative readiness (ESPR requirements are highlighted in bold)

Value chain stage	Representative stakeholders	Information currently available / provided at this stage	Information currently not available at this stage/ needed by other actors (data gaps)	Barriers	Readiness (indicative)
Raw material supply/extraction	Wood/timber, fibre, metal and chemical raw-material suppliers/ producers	**FSC/PEFC certificates; origin/traceability for certified timber**; safety/technical data sheets available mainly indirectly downstream	**Harmonised environmental-footprint data; comprehensive/comparable origin and traceability data**; more detailed chemical data	Confidentiality of sourcing and formulation data; traceability limited beyond direct (tier-1) suppliers; low digital maturity, especially among SMEs	*Medium* for certified wood origin; *Low* for environmental/chemical data
Intermediate materials and components	Panel, textile, leather, foam, plastics, metal, glass, chemical and fittings suppliers	Technical/Safety data sheets; **certificates; some LCA/EPD data**; sector-specific datasets; ChemX/DMP only as emerging/pilot approaches	**Harmonised environmental-footprint data; substances-of-concern and recycled-content data; material composition linked to components**	Confidentiality of sourcing and formulation data; lack of harmonised standards/vocabularies across sub-sectors	*Medium* for technical data; *Low* for environmental/circularity data
Design and product development	Brands, designers, product developers, specifiers, own-brand retailers	CAD data and BoMs for internal use; **occasional EPD/environmental-performance data**	Standardised digital product data; **durability and repairability data; supplier material-composition and environmental-footprint data**	Low digital maturity, especially among SMEs and craft producers; lack of harmonised standards/vocabularies for bespoke products	*High* for large manufacturers (with PLMs); *Low* for SMEs and craft producers

Value chain stage	Representative stakeholders	Information currently available / provided at this stage	Information currently not available at this stage/ needed by other actors (data gaps)	Barriers	Readiness (indicative)
Furniture manufacturing	Manufacturers, OEMs, contract manufacturers, SMEs and craft producers	BoMs and CAD; **VOC-emission data; quality-control records**; material input, offcuts and energy use mainly at company level	**Design-for-disassembly information; repair instructions**; circularity indicators; product-level rather than company-level production data	Traceability limited beyond direct (tier-1) suppliers; low digital maturity, especially among SMEs and craft producers	*High* for commercial/technical data; *Low* for environmental/circularity data among SMEs
Finishing, quality control and packaging	Finishing operators, testing bodies, quality-control and packaging providers	Technical data sheets; **certificates for coatings and finishes**; packaging materials and quantities	Packaging quantities in structured form; **VOC/emission and finish-durability data; environmental-performance data linkable to the product/DPP**	Data exchanged via PDF/paper rather than structured, interoperable formats	*Medium*; data exists but is not structured for automated exchange
Distribution and logistics	Importers, distributors, logistics providers, warehouses, fulfilment providers	Transport distance; **country of production**; some transport environmental data	Fuel/energy consumption; emission factors and average distances; traceability beyond direct suppliers	Traceability limited beyond direct (tier-1) suppliers; data exchanged via PDF/paper rather than structured, interoperable formats	*Low*

Value chain stage	**Representative stakeholders**	Information currently available / provided at this stage	Information currently not available at this stage/ needed by other actors (data gaps)	**Barriers**	**Readiness (indicative)**
Wholesale and retail	Wholesalers, retailers, online retailers and marketplaces	Product specifications and marketing claims; transport and packaging information	**Product conformity and environmental-performance information; care, repair and reuse guidance**	Internal systems not interoperable with value-chain partners; data exchanged via PDF/paper rather than structured, interoperable formats	*Medium* for commercial data; *Low* for sustainability/circularity data
Use phase and after-sales services	Consumers, professional users, manufacturers and retailers	Product and sales information; **warranty information; maintenance and repair information** at company level	**Spare-part availability; standardised repair manuals; repair history**	Data fragmented across enterprise systems and manual workflows	*Low*
Repair, maintenance,	Independent repairers, upholsterers, service networks	**Servicing records and replaced-component information**, shared selectively	**Spare-part availability; disassembly instructions; joining methods; repair history**	Data fragmented across enterprise systems and manual workflows; lack of harmonised standards/vocabularies	*Low*

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Value chain stage	Representative stakeholders	Information currently available / provided at this stage	Information currently not available at this stage/ needed by other actors (data gaps)	Barriers	Readiness (indicative)
Secondary market, reuse, refurbishment	Second-hand platforms, reuse organisations, refurbishers, take-back operators	**Maintenance recommendations and warranty information**	**Condition/history information; repair/refurbishment records; material composition; spare-part availability; disassembly information**	No systematic recording of product (item) condition/history after sale; privacy and liability concerns limit data transfer at change of ownership	*Very low*
End-of-life management and recycling	PROs, collectors, waste operators, sorters, dismantlers and recyclers	Properties of sorted fractions, generated after manual sorting	**Material composition** and contaminants; **disassembly information; recycling/separation-route information**	Physical labels often missing, removed or unreadable at end of life; multi-material composition limits automated sorting	*Very low*
Market surveillance and customs authorities	National market surveillance authorities and customs authorities	**Compliance documentation**, generally collected on request through national procedures	Structured, machine-readable access to **compliance and environmental-performance information** and circularity information	-	*Low*

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8.2 Data formats, granularity and verification mechanisms

The assessment shows that data formats, granularity and verification mechanisms vary considerably across the furniture value chain. Upstream and manufacturing data are often available through certificates, technical documentation and internal systems, but are not consistently structured or linked to the final product. Downstream, data are increasingly fragmented, manually recorded or unavailable, particularly for repair, reuse and end-of-life activities. Overall, the main readiness gaps concern structured digital exchange, consistent product linkage and harmonised verification.

Value chain stage	Representative stakeholders	Data formats and systems	Granularity	Verification mechanism
Raw material supply/extraction	Wood/timber, fibre, metal and chemical raw-material suppliers/ producers	Certificates and technical data sheets, EUTR/EUDR traceability records	Batch/lot level for certified materials; company level for energy data*	Third-party chain-of-custody certification (FSC/PEFC); supplier declarations
Intermediate materials and components	Panel, textile, leather, foam, plastics, metal, glass, chemical and fittings suppliers	MDS/SDS, technical data sheets, certificates, test reports; some LCA/EPD	Material/component type or level; batch/lot level for certified materials*	Supplier declarations and third-party certification (e.g. CertiPUR, OEKO-TEX, FSC/PEFC); SDS disclosure may be threshold-limited, while more detailed formulation data may be shared separately.

Value chain stage	Representative stakeholders	Data formats and systems	Granularity	Verification mechanism
Design and product development	Brands, designers, product developers, specifiers, own-brand retailers	CAD/PDM and internal PLM systems (large manufacturers); largely undocumented for SMEs	Model/reference level for product specifications and BoMs; item-specific data may exist for customised products*	No dedicated verification mechanism reported
Furniture manufacturing	Manufacturers, OEMs, contract manufacturers, SMEs and craft producers	ERP/PLM/MES systems (large manufacturers); PDF/paper-based for SMEs and craft producers	Model/product-family level for specifications and testing; Item level for customised/made-to-order products; batch, production-line, facility or company level for production and environmental data*	Internal quality-management audits; no product-specific digital verification, mainly documentary*
Finishing, quality control and packaging	Finishing operators, testing bodies, quality-control and packaging providers	Technical data sheets; PDF/paper-based	Model/product-family or batch level depending on test and production process; generally not item-specific*	Internal quality-control testing; supplier declarations and certification for coatings and lacquers*

Value chain stage	Representative stakeholders	Data formats and systems	Granularity	Verification mechanism
Distribution and logistics	Importers, distributors, logistics providers, warehouses, fulfilment providers	PDF/paper-based; limited detail beyond distance/route records*	Order/shipment level, not model-specific*	No dedicated mechanism reported; likely reliance on carrier-provided data*
Wholesale and retail	Wholesalers, retailers, online retailers and marketplaces	PDF/paper-based, certificates; not interoperable with suppliers or other partners*	Model level, aligned with what is communicated to consumers*	No dedicated verification mechanism reported*
Use phase and after-sales services	Consumers, professional users, manufacturers and retailers	PDF/paper-based warranty and service records; limited digital integration*	Item level where individual warranty/service records exist; otherwise not systematically recorded*	No dedicated verification mechanism reported*
Repair and maintanance	Independent repairers, upholsterers, service networks	No structured system; informal, manual condition assessments*	Item-specific where condition is assessed, but rarely digitally recorded*	No dedicated mechanism reported; likely reliance on manual condition assessment by resellers*

Value chain stage	Representative stakeholders	Data formats and systems	Granularity	Verification mechanism
Secondary market, reuse, refurbishment	Second-hand platforms, reuse organisations, refurbishers, take-back operators	PDF/paper-based service documentation; largely manual*	Item level where service records exist*	No dedicated mechanism reported; likely reliance on supplier declarations/certification for replacement parts*
End-of-life management and recycling	PROs, collectors, waste operators, sorters, dismantlers and recyclers	No structured system; reliance on physical labels, where present*	Mainly waste/fraction level; individual furniture items are generally not digitally recorded*	No dedicated mechanism reported; likely manual sorting and visual inspection*
Market surveillance and customs authorities	National market surveillance authorities and customs authorities	Document-based compliance files (technical documentation, declarations)*	Product type/model or product-family level, depending on the applicable compliance documentation*	National authority and customs checks; no automated verification yet, since no DPP infrastructure is operational for furniture*

Cells marked with * are extrapolated, either from a respondent's general answer that implicitly referred to that stage, or from surrounding stage and reasonable inference. Unmarked cells are backed by a source that explicitly named or clearly described that stage.

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8.3 Next steps and limitations of the DPP content analysis method

Although the methodology provides a structured approach for defining DPP content, the results presented in this report are intermediate. The analysis primarily covers Steps A1–A4 and uses these results to derive preliminary furniture-specific use cases and associated data needs. These constitute the basis for the subsequent specification and validation steps and should not yet be interpreted as final DPP requirements.

The next steps are therefore to:

1. validate and prioritise the preliminary use cases and data needs with stakeholders (Step B2);
2. translate the validated data needs into detailed DPP specifications (Step C), including data fields, vocabularies, granularity, access rights and governance; and
3. validate the resulting specification (Step D) and assess its expected benefits, costs and administrative burden as part of the impact assessment.

The following limitations should be considered when interpreting the present results.

A. Preliminary status and pending validation

The proposed use cases and data needs are derived from the legal, market and value-chain assessment but have not yet undergone the dedicated stakeholder validation foreseen in Steps B2 and D. Their relevance, priority and appropriate implementation therefore remain subject to further assessment.

B. Representativeness and comparability of the evidence base

The analysis draws on stakeholder submissions, voluntary schemes, literature and pilot projects. While these sources provide broad coverage of the furniture value chain, they do not constitute a representative quantitative sample of the EU furniture market. Data practices also differ considerably by furniture type, company size, production model and supply chain. Conclusions on data availability and current uptake should therefore be interpreted as indicative rather than as market-wide prevalence estimates.

C. Availability does not imply DPP readiness

The analysis shows that many potentially relevant data already exist, but often at supplier, material, component or certificate level rather than being digitally structured and linked to the final furniture product. Differences in terminology, calculation methods, granularity and verification further limit direct reuse. Further work is therefore required to determine whether individual data points can be provided consistently, at the required granularity and across product scope.

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D. Feasibility, proportionality and implementation choices remain to be assessed

The present analysis does not quantify the costs and administrative burden associated with collecting, verifying, structuring, updating and providing the proposed information. Nor does it fully determine technical implementation choices such as data-carrier technology and placement, integration with existing systems or the operational implications. These aspects are relevant for determining proportionate requirements for SMEs, complex supply chains and different furniture production models and should be assessed during the subsequent specification and impact assessment.

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9 Step B: Use cases & data needs elicitation

9.1 Step B1: Identification of use cases

Table 9-1: Preliminary use case catalogue for furniture DPP, for further evaluation.

#	Category	Main actors	Use case name	Short description	Key benefits / notes	Source
UC1	Compliance check & monitoring	Automated / EU Registry	Automated completeness verification of DPP disclosures	Automated system checks whether all mandatory data fields are present and correctly formatted before the DPP is published in the EU Registry	Prevents incomplete/structurally non-compliant DPPs entering the registry; checks structure/format, not factual accuracy	Adapted from Textiles preparatory study (UC1)
UC2	Compliance check & monitoring	Customs authorities	Customs controls for imported furniture	At EU entry, customs search the DPP Registry (via product ID or data carrier) to verify required registration and cross-check shipment data	Supports enforcement of Article 15 ESPR and border controls; relevant given high import share of furniture	Adapted from Textiles preparatory study (UC2)

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#	Category	Main actors	Use case name	Short description	Key benefits / notes	Source
UC3	Compliance check & monitoring	Market Surveillance Authorities (MSAs)	Ongoing compliance monitoring	MSAs use the EU DPP Portal/Registry to retrieve product data, conformity documentation and sustainability disclosures for surveillance	Enables proactive/reactive monitoring; MSAs need material composition, chemical composition and environmental performance data to assess durability, repairability, recyclability and substance compliance	Adapted from Textiles preparatory study (UC3); confirmed by Q3a (sofia research group)
UC4	Compliance check & monitoring	MSAs / statistical bodies	Statistical monitoring of furniture imports and production	Harmonised, machine-readable DPP data is aggregated on imports, production volumes and market patterns	Reduces admin burden; improves quality and timeliness of official statistics	Adapted from Textiles preparatory study (UC4)
UC5	Compliance check & monitoring	Contracting authorities	Public procurement sustainability verification (GPP)	Contracting authorities consult DPPs in tenders to verify compliance with Green Public Procurement criteria	Voluntary EU GPP criteria for furniture already exist and reference durability, recycled content and substances of concern; DPP could standardise and speed up verification	Adapted from Textiles preparatory study (UC6)

#	Category	Main actors	Use case name	Short description	Key benefits / notes	Source
UC6	B2C data exchange	Consumers / retailers	Inform sustainable purchasing decisions	At point of sale (new or second-hand), DPP gives **circularity information** e.g. on durability/expected lifespan, recycled content, recyclability and environmental impact	Empowers more sustainable choices; impact limited as consumers still prioritise price and perceived quality/fit	furniture stakeholder consultation, particularly BEUC and ANEC
UC7	B2C data exchange	Consumers	Maintaining furniture appropriately	Consumer accesses **care and maintenance instructions** (e.g. wood treatment, upholstery cleaning, fitting adjustment)	Extends usable lifetime before repair is needed; low implementation burden (static instructions)	BEUC and ANEC; A4 identifies a gap in standardised and accessible maintenance information
UC8	B2C data exchange	Consumers	Self-repair of furniture	Consumer scans DPP data carrier to obtain **component specifications** (hinges, fittings, cushion foam), **instructions and tutorials to repair** the item themselves	Directly requested by RREUSE, ECOS, Evervel; consumer-added repair events raise personal-data/consent considerations	RREUSE, ECOS and Evervel;
UC9	B2C data exchange	Consumers / independent repairers, upholsterers	Finding repair or reupholstery services	Consumer accesses **contact details of repair/upholstery services** (brand-affiliated or independent)	Furniture repair network is fragmented/local, reinforcing DPP value as a discovery tool	Adapted from Textiles preparatory study (UC10)

#	Category	Main actors	Use case name	Short description	Key benefits / notes	Source
UC10	B2C data exchange	Consumers / municipalities / take-back schemes	Take-back and disposal guidance for end-of-life furniture	Consumer accesses DPP **information on proper disposal, separate collection and take-back/return programmes**	Encourages correct disposal and channels products into reuse/recycling streams.	confirmed by Q11 (Municipality of The Hague, Andalusia public company)
UC11	B2B data exchange	Retailers / distributors, manufacturers / suppliers	Retailer verification of material composition and component data prior to product listing	The retailer/distributor access **compliance relevant information** in order to check before listing a supplied product towards compliance (e.g. material composition, component-level BoM).	Gives retailers access and decision basis instead of relying on supplier self-declarations; material composition remains the most frequently requested data category across respondents	confirmed by Q3a (sofia research group, wholesale and retail stage); Q11 (RREUSE, Evervel, German Federal Environment Agency, and majority of respondents)

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#	Category	Main actors	Use case name	Short description	Key benefits / notes	Source
UC12	B2B data exchange	Repair/refurbishment operators; manufacturers	B2B data exchange to facilitate repair and spare-part sourcing	Repair or refurbishment operators access **component-level information, including material composition per component, fastening and joining methods, spare-part identifiers and compatibility, disassembly instructions** and, where relevant, **repair, refurbishment and replacement history**	Facilitates repair and product lifetime extension. Directly requested (RREUSE: "access to spare parts with price and delivery time")	Adapted from Textiles preparatory study (UC12); confirmed by RREUSE, Nickel Institute, ECOS
UC13	B2B data exchange	Manufacturers; second-hand resellers	B2B data exchange for second-hand market resale	Resellers access verifiable product information through the DPP to support **product identification, description** and, where available, **condition**	Increases transparency and trust and supports reuse through second-hand markets	Adapted from Textiles preparatory study (UC11)

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#	Category	Main actors	Use case name	Short description	Key benefits / notes	Source
UC14	B2B data exchange	Leasing/furniture-as-a-service providers; refurbishers; asset managers	Asset management for leasing, refurbishment and remanufacturing business models	**Item-level information on repairs, refurbishment, component replacement and condition** is accessed and, where applicable, updated across repeated use cycles	Supports repeated use, refurbishment and circular service-based business models	Derived from Q11 (German Federal Environment Agency, sofia research group, BRIGO, Fora Form, EEB)
UC15	End-of-life data exchange	End-of-life operators; dismantlers; recyclers; reuse operators	Data exchange to facilitate sorting and disassembly	End-of-life operators access information on **material composition, substances of concern and joining/disassembly methods** to determine appropriate reuse, dismantling and recycling routes. Foam and upholstery identification are examples	Supports reuse, more effective dismantling and improved separation of material fractions	Adapted from Textiles preparatory study (UC13); complemented by EUROPUR

Several respondents highlighted that access to some DPP information may need to differ by actor, for example public, legitimate-interest or authority-only access. This is a cross-cutting DPP design issue and will therefore be addressed in Step C on access rights rather than as a separate use case.

9.2 Step B3: Conceptual data needs / information requirements elicitation (draft)

** Double asterisk indicates a voluntary information, proposed/identified as relevant by stakeholders. It is not defined as an information requirement in the ESPR.

Table 9-2: Derived data fields, to be evaluated in the next step through stakeholder consultation

Data category	Data field	Granularity	Access	Voluntary / mandatory	Source / legal reference
Product identification	Unique Product Identifier	Item	Legitimate interest	Voluntary	ESPR Annex III(b)
Product identification	Batch ID	Batch	Legitimate interest	Mandatory	ESPR Annex III(b); GPSR Art. 9(5)
Product identification	Model ID	Model	Public	Mandatory	ESPR Annex III(b)/(c); GPSR Art. 9(5)
Product identification	Product category / CN code	Model	Public	Mandatory where applicable	ESPR Annex III(d)
Producer Identification	Manufacturer details (name, postal and electronic address)	Model	Public	Mandatory	ESPR Annex III(g); GPSR Art. 9(6)
Producer Identification	Importer / EU responsible person details, where applicable	Model	Public	Mandatory where applicable	ESPR Annex III; GPSR Arts. 11, 16
Producer Identification	Unique facility identifier / production site	Batch	Legitimate interest	Mandatory	ESPR Annex III(i)
Product Information – Material	**Primary Materials used	Model / component	Public	tbd	Stakeholder consultation

Data category	Data field	Granularity	Access	Voluntary / mandatory	Source / legal reference
Product Information – Material	**Upholstery Materials used	Model / component	Public	Mandatory where TLR applies; otherwise proposed	TLR Arts. 5–14 where applicable; stakeholder consultation
Product Information – Material	**Hardware and Fixtures used	Model / component	Legitimate interest	tbd	Stakeholder consultation
Product Information – Material	**Component identifier / specification	Component	Legitimate interest	tbd	Stakeholder consultation; UC8, UC11, UC12;
Product Information – Material	Weight	Model	Public	tbd	ESPR Annex I(j); stakeholder consultation
Product Information – Chemical Properties	Name of Substances of Concern (SoC)	Component / batch	Public	Mandatory	ESPR Art. 7(5); REACH Art. 33; WFD/SCIP
Product Information – Chemical Properties	Location of SoC	Component / batch	Legitimate interest	Mandatory	ESPR Art. 7(5); REACH Art. 33; WFD/SCIP
Product Information – Chemical Properties	Concentration of SoC	Component / batch	Public	Mandatory	ESPR Art. 7(5); REACH Art. 33; WFD/SCIP
Product Information – Chemical Properties	Use of preservatives (wood treatment)	Component / batch	Public where required	Mandatory where applicable	SoC declaration ESPR Art. 7(5); BPR Art. 58
Product Information – Chemical Properties	Use of flame retardants	Component / batch	Public where required	Mandatory where applicable	SoC declaration ESPR Art. 7(5); REACH/POPs where applicable
Product Information – Chemical Properties	Relevant instructions for safe use	Component / batch	Public	Mandatory	ESPR Art. 7(5); REACH Art. 33; GPSR Art. 9(7); BPR where applicable
Product Information – Chemical Properties	Information relevant for disassembly, reuse, recycling and management at EoL	Model / component	Legitimate interest	Proposed mandatory	ESPR Art. 7(2)(b)(iii); Art. 7(5)(e); WFD/SCIP; UC8, UC12, UC15

Data category	Data field	Granularity	Access	Voluntary / mandatory	Source / legal reference
Product Information – Circularity	Durability	Model	Public	tbd	ESPR Art. 7(2)(b)(i); Annex I(a)
Product Information – Circularity	Repairability	Model	Public	tbd	ESPR Art. 7(2)(b); Annex I(b); stakeholder consultation
Product Information – Circularity	Recyclability	Model	Public	tbd	ESPR Art. 7(2)(b); Annex I
Product Information – Circularity	Eco-labels	Model	Public	Voluntary	EU Ecolabel / other schemes
Product Information – Recycled content	Recycled content (%)	Model / batch	Public	Proposed mandatory	ESPR Art. 7(2)(b); Annex I(h)
Product Information – Recycled content	**Type of waste / recycled feedstock	Material / batch	Public / legitimate interest	tbd	Stakeholder consultation;
Product Information – Recycled content	Weight	Model / batch	Legitimate interest	tbd	Supporting calculation data
Product Information – Recycled content	Amount of recycled material	Model / batch	Public / evidence restricted	Proposed	ESPR Annex I(h)
Product Information – Product footprint	Carbon Footprint	Model / product family; batch where relevant	Public result; evidence restricted	Tbd / methodology required	ESPR Annex I(n); stakeholder consultation
Product Information – Product footprint	Environmental footprint / LCA, PCF or EPD result	Model / product family	Public result; evidence restricted	Tbd	ESPR Annex I(m); stakeholder consultation
Product Information – Product footprint	Methodology, data source and verification status for environmental footprint	Same as footprint result	Authorities / legitimate interest	Tbd	Applicable LCA/EPD methodology; UC5;

Data category	Data field	Granularity	Access	Voluntary / mandatory	Source / legal reference
Product Information – Manuals and instructions	Care / maintenance instructions	Model	Public	Mandatory	ESPR Art. 7(2)(b)(ii); stakeholder consultation, UC 7
Product Information – Manuals and instructions	Assembly (install) instructions	Model	Public	Mandatory	ESPR Art. 7(2)(b)(ii); stakeholder consultation
Product Information – Manuals and instructions	Repair instructions	Model	Public / professional detail restricted	Mandatory	ESPR Art. 7(2)(b)(ii); stakeholder consultation, UC8, UC12
Product Information – Manuals and instructions	Spare-part availability, identifier and sourcing information	Model	Public / professional detail restricted	Mandatory	ESPR Art. 7(2)(b)(ii); stakeholder consultation; UC8, UC12
Product Information – Manuals and instructions	**Joining methods / fastening types	Model / component	Legitimate interest	tbd	Stakeholder consultation, UC8, UC12, UC15
Product Information – Manuals and instructions	**Contact of repair services offered by brand	Model	Public	Tbd	Stakeholder consultation, UC 9
Product Information – Manuals and instructions	**Warranty duration	Model	Public	Voluntary	Consumer Rights Directive as amended by Directive (EU) 2024/825, stakeholder consultation
Product Information – Manuals and instructions	Take-back / return and disposal information	Model	Public	Mandatory	ESPR 7(2)(a)(ii); Stakeholder consultation; EPR arrangements where applicable; UC10
Product Information – Lifecycle	**Manufacturing date	Batch / item	Public or restricted	Voluntary	UC5; stakeholder consultation
Product Information – Lifecycle	**Expected lifetime	Model / item	Public	Voluntary / methodology required	Stakeholder consultation, UC6

Data category	Data field	Granularity	Access	Voluntary / mandatory	Source / legal reference
Product Information – Lifecycle	**Condition assessment	Item	Legitimate interest / owner	Voluntary	Stakeholder consultation, UC13, UC14
Product Information – Lifecycle	**Repair and refurbishment history	Item	Legitimate interest / owner	Voluntary	Stakeholder consultation, UC12-14;
Product Information – Lifecycle	**Component replacement history	Item	Legitimate interest / owner	Voluntary	Stakeholder consultation, UC12, UC14;

** Double asterisk indicates a voluntary information, proposed/identified as relevant by stakeholders. It is not defined as an information requirement in the ESPR.

Table 9-3 Potential optional data fields identified as relevant through the stakeholder survey and subject to further stakeholder validation

Data category	Data field	Granularity	Access	Voluntary / mandatory	Source / legal reference
Producer Identification	**Country of Origin / manufacture	Model / batch	Public	tbd	Stakeholder consultation; EUDR for relevant raw-material origin
Producer Identification	**Harvest origin for wood	Material lot / batch	Restricted; relevant information public	tbd	EUDR Art. 9
Product Information – Material	**Primary Materials used	Model / component	Public	tbd	Stakeholder consultation

Data category	Data field	Granularity	Access	Voluntary / mandatory	Source / legal reference
Product Information – Material	**Upholstery Materials used	Model / component	Public	tbd	TLR Arts. 5–14 where applicable; stakeholder consultation
Product Information – Material	**Dimensions	Model	Public	tbd	Stakeholder consultation / current product information
Product Information – Material	**Adhesives and Coatings used	Component / batch	Legitimate interest	Conditional	REACH/BPR where applicable; stakeholder consultation
Product Information – Mechanical properties	**Stability & strength	Model / product family	Legitimate interest	Conditional	GPSR; applicable EN furniture standards
Product Information – Chemical Properties	**VOC Emissions	Model / component	Public	Conditional	REACH formaldehyde restriction where applicable; stakeholder consultation
Product Information – Chemical Properties	**Flammability	Model / product family	Public where relevant; evidence restricted	Conditional	Applicable safety/fire requirements
Product Information – Circularity	**Recycling / separation route information	Model / component	Legitimate interest	tbd	Stakeholder consultation / EoL use case
Product Information – Recycled content	**Type of waste / recycled feedstock	Material / batch	Public / legitimate interest	tbd	Stakeholder consultation;
Product Information – Recycled content	**Weight	Model / batch	Legitimate interest	tbd	Supporting calculation data
Product Information – Recycled content	**Amount of recycled material	Model / batch	Public / evidence restricted	Voluntary	ESPR Annex I(h)
Product Information – Compliance	**Quality Assurance Results	Model / product family	Authorities	Voluntary	GPSR; applicable EN standards

Data category	Data field	Granularity	Access	Voluntary / mandatory	Source / legal reference
Product Information – Compliance	**Technical certificates / test reports	Model / component	Authorities / legitimate interest	Voluntary	Applicable compliance requirements
Product Information – Compliance	**Forestry Certifications	Material / batch	Public	Voluntary	FSC/PEFC; voluntary schemes
Product Information – Compliance	**Biocidal treatment information	Model / batch	Public	Voluntary	BPR Art. 58
Product Information – Compliance	**Compliance with applicable substance restrictions	Component / batch	Authorities	Voluntary	REACH Annex XVII; POPs Regulation
Product Information – Lifecycle	**End-of-use or EoL date	Item	Authorities	Voluntary	UC5; stakeholder consultation

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11 Annex

11.1 Information availability and needs across the value chain (holistic survey responses)

The table below shows main potential ESPR information requirements with their legal basis (reference) and aligns them to the information reported by stakeholders as already available or still missing. This provides a direct indication of where existing sector data could support future furniture DPP requirements and where additional data generation, structuring or access would be needed. Further, this alignment is used to highlight in bold the potential relevant ESPR information in the second table below.

Potential ESPR information requirement	Reference	Survey-stated information availability / gaps
Durability / expected lifetime	Art. 7(2)(b)(i); Annex I(a)	**Available:** Quality-control/test information; warranty information. **Gap:** Durability information; finish durability; expected lifetime
Repairability	Art. 7(2)(b)(i); Annex I(b)	**Available:** Some maintenance/repair information; servicing records. **Gap:** Repairability information; standardised repair instructions; exploded/disassembly information
Spare-part availability / compatibility	Art. 7(2)(b)(i); Annex I(b)	**Available:** Some spare-part information. **Gap:** Spare-part availability, identifiers and compatibility
Recyclability / design for recycling	Art. 7(2)(b)(i); Annex I(d)	**Available:** Properties of sorted material fractions generated at end-of-life. **Gap:** Material composition; contaminants; joining/disassembly information; recycling/separation routes
Substances of concern	Art. 7(5); Annex I(f)	**Available:** SDS; technical data sheets; information on materials/chemicals used. **Gap:** More complete SoC/chemical information and product/component linkage

Potential ESPR information requirement	Reference	Survey-stated information availability / gaps
Recycled content	Art. 7(2)(b)(i); Annex I(h)	**Available:** Recycled-content information for some intermediate materials/components. **Gap:** Complete and consistent recycled-content data
Environmental footprint	Art. 7(2)(b)(i); Annex I(m)	**Available:** Some LCA/EPD/environmental-performance information. **Gap:** Harmonised environmental-footprint data and product-level environmental information
Carbon footprint	Art. 7(2)(b)(i); Annex I(n)	**Available:** Some PCF/LCA and transport environmental data. **Gap:** Harmonised carbon-footprint data and underlying product-specific information
Weight / packaging-related parameters	Art. 7(2)(b)(i); Annex I(j)	**Available:** Packaging materials and quantities. **Gap:** Packaging quantities in structured form
Use, care and maintenance information	Art. 7(2)(b)(ii)	**Available:** Instructions for use; care and maintenance information. **Gap:** More standardised and accessible maintenance information
Repair information	Art. 7(2)(b)(ii)	**Available:** Some repair/service information. **Gap:** Standardised repair manuals/instructions and information required for repair
Collection for refurbishment/remanufacture; return/EoL handling	Art. 7(2)(b)(ii)	**Available:** Limited refurbishment/resale information. **Gap:** Return/take-back, refurbishment and end-of-use information
Disassembly, reuse, refurbishment, recycling and disposal information for treatment facilities	Art. 7(2)(b)(iii)	**Available:** Very limited product-specific information reaches end-of-life actors. **Gap:** Disassembly instructions; material composition/contaminants; separation and recycling-route information

Potential ESPR information requirement	Reference	Survey-stated information availability / gaps
Compliance documentation	Annex III(e)	**Available:** Compliance documentation, certificates and test reports; documentation collected by authorities on request. **Gap:** Structured, machine-readable access to compliance evidence
Unique product/operator/facility identification	Annex III(b), (g)–(i); Art. 12	No sufficiently specific availability or gap reported in the survey

The table below shows the survey responses on information availability and gaps across the value chain. Readiness is indicated, based on the above table, aligning relevant ESPR information to survey- stated information (highlighted in bold).

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Value-chain stage	Information currently available / provided at this stage	Information currently not available at this stage/ needed by other actors (data gaps)
Raw materials supply and extraction	Technical specifications/data sheets; SDS; **certificates; material origin; FSC/PEFC information; some environmental-performance, EPD, PCF or LCA information**	BoC-equivalent chemical composition; **substances of concern; harmonised environmental/carbon-footprint data; more comprehensive origin/traceability information**; energy data
Intermediate materials and components	Technical data sheets; SDS; supplier declarations; **certificates/test reports; material/component specifications; recycled content; some EPD/LCA information; some spare-part information; information on materials/chemicals used**	BoM/BoC-linked information; **substances of concern; complete recycled-content information; harmonised environmental-performance data; component specifications; joining methods; compatibility and spare-part identifiers**; traceability; energy data
Design and product development	CAD, drawings and BoM; technical specifications; **some environmental-performance/EPD information**; PLM data in some cases	Standardised digital product data; **repairability; durability; recyclability; design-for-disassembly information**; uniform data structures for bespoke products
Furniture manufacturing	CAD and BoM; **material declarations; certificates/compliance documentation**; product specifications; **some VOC/emission information; assembly and care instructions**; some energy, material and waste data	Product-linked data/material-to-product traceability; **environmental-performance information; care, repair and spare-part information; disassembly, reuse, recycling and end-of-life information**; service manuals; upgrade pathways
Finishing, quality control and packaging	**Information on coatings/finishes; quality/test information**; manufacturing-process information; packaging materials and quantities	**Harmonised environmental-performance information; VOC/emission information; durability information**; complete packaging quantities
Distribution and logistics	Transport/delivery information and distances; **country of production**; packaging information; some transport environmental data	Fuel/energy consumption; comparable emission factors; transport-distance data; value-chain traceability
Wholesale and retail	Product specifications/marketing claims; transport and packaging information; quantities	**Product (item) condition; reuse, repair and reverse-logistics information**; customer-facing guidance; harmonised logistics emissions
Use phase and services	Instructions for use; **maintenance/care information; some repair/service information; warranty information**	**Repair/maintenance history; standardised repair manuals; repair, durability and product-lifetime information; recycling information**
Secondary market and reuse	Limited resale/refurbishment information; **maintenance information; warranty information**	**Verified product (item) condition; repair history; expected remaining lifetime**; reliable reuse-flow data
Repair and remanufacturing	**Servicing/repair information; replaced-component information; some refurbishment information; some spare-part information**	**Component identification; disassembly instructions**; technical documentation; **product (item) condition; repair/refurbishment history**
End-of-life management and recycling	Information on sorted products, components and material fractions	**Exact material composition**; contaminants; **dismantling instructions**

Value-chain stage	Information currently available / provided at this stage	Information currently not available at this stage/ needed by other actors (data gaps)
Market surveillance and customs	**Compliance information** is available to authorities, but format/accessibility are unclear	Nothing specifically reported as information to be provided by this stage

11.2 Existing information requirements and relation to the ESPR DPP within other Union law

11.2.1 REACH Regulation 1907/2006/EC

Article 33 requires the supplier of an article containing a Candidate List substance above 0,1% weight by weight to provide the recipient with sufficient information to allow safe use, including, as a minimum, the name of the substance. The same information must be supplied to consumers on request, free of charge, within 45 days. For complex products, the threshold applies to each component that retains its status as an article, rather than to the mass of the complete furniture item. Safety data sheets may apply separately when substances or mixtures are hazardous, such as adhesives or repair chemicals.

DPP relevance: While there is no mandate for REACH Article 33 information in the DPP, the ESPR, Article 7(5)(a)–(c) requires the substance name, concentration, location (affected component) and safe-use information. Access may need to be differentiated between public/consumers, legitimate interest (professional operators, recyclers) and authorities. A DPP should link to, rather than reproduce, safety data sheets for separately supplied mixtures.

11.2.2 CLP Regulation 1272/2008/EC

CLP governs the classification, labelling and packaging of substances and mixtures. Where hazardous paint, adhesive, coating, cleaning product or repair mixture is supplied with furniture, its package must display the product identifier, supplier details, applicable hazard pictograms, signal word, hazard statements, precautionary statements and supplemental information. A Unique Formula Identifier is additionally required where the mixture falls within the poison-centre notification provisions of Annex VIII. Finished furniture articles are generally not labelled under CLP merely because hazardous substances were used during manufacture.

DPP relevance: Low for the furniture DPP itself. CLP information belongs to the separately identifiable chemical product and its physical packaging. The furniture DPP may provide a link to the chemical label or safety data sheet where the mixture forms part of a maintenance or repair kit.

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11.2.3 General Product Safety Regulation 2023/988/EU

The GPSR establishes general identification and safety-information requirements for consumer furniture. Products must bear a type, batch or serial number or another element enabling identification, together with the manufacturer's name, registered trade name or trade mark and postal and electronic address. Importer and EU responsible-person details apply where relevant. Clear instructions and safety information must accompany the product where necessary for safe use. For distance sales, the online offer must additionally display the manufacturer or responsible person, a product image and identifier, and applicable warnings or safety information (Articles 9, 11, 16 and 19).

DPP relevance: The GPSR does not require a product-linked data carrier, QR code or digital product information system. Article 19 requires information to be displayed digitally for distance sales, but this is linked to the online offer rather than to the product. Nevertheless, there is a clear content overlap with the ESPR DPP: Annex III covers product and economic-operator identifiers as well as "user manuals, instructions, warnings or safety information, as required by other Union law applicable to the product". Thus, a DPP would not replace mandatory physical markings, accompanying information or disclosures in online offers.

11.2.4 Packaging Directive 94/62/EC and Packaging and Packaging Waste Regulation 2025/40/EU

The Packaging Directive provides the existing framework for packaging-material identification. Regulation (EU) 2025/40 applies from 12 August 2026 and progressively introduces harmonised labels identifying packaging material composition, reusable-packaging status and, where required, a QR code or other standardised digital data carrier providing information on reuse systems. It also establishes packaging-specific economic-operator and conformity documentation. The Directive is repealed subject to transitional provisions, including the temporary continuation of its identification system.

DPP relevance: Packaging is a separate regulatory object that may change independently of the furniture model. Packaging information should therefore use a separate packaging identifier and data layer, with an optional link from the furniture DPP where necessary.

11.2.5 Waste Framework Directive 2008/98/EC

Article 9(1)(i) requires suppliers of articles containing a REACH Candidate List substance above 0,1% weight by weight to provide the information referred to in REACH Article 33(1) to ECHA. This information is stored in the SCIP database to support waste prevention, treatment and material-loop management. The obligation is separate from the direct supply-chain and consumer communication required by REACH.

DPP relevance: High but mainly restricted. Article and component identification, the substance concerned, its location and safe-use or treatment information are relevant to

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dismantlers and waste operators. The DPP should avoid duplicating the complete SCIP submission and may instead provide structured data or a resolvable reference.

11.2.6 Deforestation Regulation 2023/1115/EU

For covered wooden furniture, the EUDR due-diligence system requires product description and quantity, country of production, common and scientific names of the wood species, geolocation of all relevant plots, production date or period, supplier and customer details, and adequately conclusive and verifiable information demonstrating that the product is deforestation-free and produced in accordance with relevant legislation. Operators must submit a due-diligence statement, or the applicable simplified declaration, through the EU information system before placing relevant products on the market or exporting them.

DPP relevance: High and conditional. Species, country of production and due-diligence-statement reference are suitable DPP fields. Plot geolocation, supplier identities, underlying evidence and risk assessments should generally remain restricted. Because origin may vary between consignments, EUDR information will often require batch or shipment granularity rather than model-level information alone.

11.2.7 Textile Labelling Regulation 1007/2011/EU

The Regulation applies, inter alia, to furniture coverings containing at least 80% by weight of textile components and to mattress coverings. Such coverings must be labelled or marked using the fibre names listed in Annex I and indicating their composition by percentage by weight. Where non-textile parts of animal origin are present, the wording “Contains non-textile parts of animal origin” is mandatory. The Regulation does not currently require general EU disclosure of care instructions, size, origin or allergens.

DPP relevance: High and conditional. Fibre composition and the animal-origin statement are suitable public DPP data points. The physical label remains legally relevant, while the DPP could improve persistence, multilingual presentation and accessibility during repair and end-of-life treatment.

11.2.8 Right to Repair Directive 2024/1799/EU

Ordinary furniture is not presently among the products covered by the mandatory repair obligation in Annex II. A furniture repairer may nevertheless use the European Repair Information Form voluntarily. Where used, the form must contain the repairer’s identity and contact details, identification of the good, the defect, proposed repair, price or calculation method, completion time, temporary replacement options, handover arrangements, ancillary services and the period of validity. The stated conditions must remain valid for at least 30 days.

DPP relevance: Limited but potentially important at item level. The product identifier, defect and completed repair may support a repair history. Repair quotations, prices,

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locations, completion times and offer-validity periods are transaction-specific and should not form part of the permanent product DPP.

11.2.9 Environmental Taxonomy Regulation 2020/852/EU

Article 8 requires undertakings within the applicable reporting scope to disclose how and to what extent their activities are associated with environmentally sustainable economic activities. For non-financial undertakings, Delegated Regulation (EU) 2021/2178 specifies turnover, capital-expenditure and operational-expenditure indicators, together with prescribed templates, accounting explanations and information on eligibility and alignment with the technical screening criteria. These are company- and activity-level financial disclosures, not product disclosures.

DPP relevance: Low as direct DPP content. Taxonomy KPIs, accounting methodologies and financial denominators must remain in company reporting. Product-level DPP data may nevertheless provide supporting evidence for activities involving durable products, repair, refurbishment, remanufacturing, spare parts or second-hand sales.

11.2.10 Construction Products Regulation 2024/3110/EU

The CPR applies only where a furniture-related product qualifies as a construction product and is subject to the applicable harmonised framework. Relevant information includes product identification, intended use, manufacturer information, the Declaration of Performance and Conformity (DoPC), declared performance for essential characteristics, CE marking, and instructions and safety information. Importantly, the CPR also requires the DoPC to include life-cycle environmental sustainability performance for the predetermined environmental essential characteristics in Annex II. These include climate-change, resource-use, toxicity and other LCA indicators, introduced progressively under Article 15. The methodology builds on the established LCA framework for construction products, including EN 15804.

DPP relevance: movable furniture is generally outside the CPR framework. However, CPR environmental performance data are particularly relevant if an environmental footprint or carbon footprint becomes an information requirement for furniture under the ESPR (Art. 7(2)(b)(i); Annex I(m)–(n)). Existing EN 15804-based EPD and CPR data could provide an important data basis and reduce duplicate LCA calculations. However, direct reuse cannot be assumed: the ESPR delegated act would need to specify the applicable methodology, and differences between CPR/EN 15804 and the Product Environmental Footprint methodology may require methodological mapping or conversion. Where products fall under both frameworks, interoperability and reuse of the same underlying environmental data should therefore be prioritised over parallel environmental declarations.

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11.2.11 Biocidal Products Regulation 528/2012/EU

Furniture treated with or intentionally incorporating a biocidal product is a treated article. Article 58(3) requires labelling where a claim is made regarding biocidal properties or where the approval of the active substance requires it. The label must state that the article incorporates biocidal products, identify the claimed property, name the active substances, identify relevant nanomaterials followed by “nano” in brackets, and provide relevant instructions and precautions. Consumers must receive information on the biocidal treatment on request, free of charge, within 45 days.

DPP relevance: High and conditional. The treatment, claimed property, active substances and safety precautions are suitable public DPP information. The DPP can facilitate the 45-day consumer-information obligation, but it should supplement rather than replace mandatory product labelling.

11.3 Existing information requirements and relation to the ESPR DPP within international legislation

11.3.1 CITES – Convention on International Trade in Endangered Species

CITES is implemented in the EU principally through Regulation (EC) No 338/97 and Regulation (EC) No 865/2006. Furniture containing listed timber, animal skins, ivory or other protected specimens may require import, export, re-export or commercial-use permits and certificates. The documentation identifies, inter alia, the species, specimen description, quantity, source, country of origin, purpose of the transaction and the relevant importer, exporter or consignee. Applicability depends on the species, the relevant Annex and any annotation limiting the products covered.

DPP relevance: The scientific species name, material origin, source code and permit or certificate reference could be included at product or batch level. Full permits and commercial-party details should normally remain restricted or be provided through a resolvable reference.

11.3.2 Stockholm Convention on Persistent Organic Pollutants

The Convention is implemented in the EU through Regulation (EU) 2019/1021. The Regulation primarily prohibits or restricts the manufacture, placing on the market and use of listed persistent organic pollutants (POPs) rather than establishing a general furniture label. Specific authority-facing information is required, for example, where a permitted stockpile exceeding 50 kg contains an Annex I or II substance; the holder must provide the competent authority with information on the nature and size of the stockpile.

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DPP relevance: POPs are explicitly included in the ESPR definition of “substances of concern” (ESRP Article 2(27)(c)). They are therefore subject to the substance-of-concern tracking framework under Article 7(5), including information on their identity, location, concentration and relevant safe-use and end-of-life information. Where a DPP is available, such information is to be provided through the DPP and accessible on the product or through its data carrier, subject to the provisions of the product-specific delegated act.

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