

**Public consultation on new product priorities under the
Ecodesign for Sustainable Products Regulation (ESPR)**

EFIC position paper on the ESPR public consultation questionnaire & JRC report

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Executive summary

Furniture is well suited for a circular economy and there is potential to drive it further in the industry. There are indeed some opportunities in being identified as a product for potential first action under the ESPR, such as 1) harmonisation and closing regulatory gaps and 2) increased circularity and material efficiency. However, the ESPR focuses on products and a combination of different tools and other legislation is needed to fully close the loop and enable a real transition to the circular economy. While we agree that prioritising furniture is reasonable considering the market size, volumes produced and the potential for a circular economy, in Annex I we are providing comments on JRC findings that in our view do not represent the furniture industry correctly and/or are not substantiated enough.

The furniture industry consists largely of SMEs & microenterprises, therefore the performance and information requirements should be manageable for all companies. The furniture range is very diversified, with many furniture types and materials used. Therefore, it would be difficult to have ecodesign requirements applying on a general (horizontal?) level to all products. We believe that some sort of categorisation would be needed within the delegated act, most probably in furniture subgroups. Some requirements may be applicable to many types of furniture whereas others are material-specific or product type-specific. Considering this, the delegated act must allow for a diversity of relevant requirements where the focus should be on the impact objective to be achieved in terms of reduced ecological and climate footprint. Requirements should be set having a holistic approach and from a lifecycle perspective. Any requirement set should not have a negative effect on other important ecodesign criteria or be in contradiction.

EFIC experts will be glad to assist and provide sector-specific expertise in all stages (Ecodesign Forum, preparatory study, impact assessment, etc.). Consider also that standardisation committee CEN TC 207 (Furniture) and its WG 10 (Requirements and tools for furniture circularity) has started developing standards for product aspects under article 5 of the ESPR. These standards should be used as a basis or considered in parallel for the development of a delegated act for furniture, and whenever relevant be harmonised at EU level for presumption of conformity.

Detailed considerations

1. Prioritisation of furniture

Furniture is well suited for a circular economy and there is potential to drive it further in the industry. The gradual transition to a more circular economy will be the main contribution of the industry to climate neutrality objectives. However, the circular economy is nothing new in the industry. Furniture products are generally long lasting and renewable raw materials such as wood¹ are very common, even though many other materials are used as well (foams, steel, aluminium, plastics or glass, etc.). In addition, some best practices² already exist in the industry.

There are indeed some opportunities in being identified as a product for potential first action under the ESPR and being a regulated product group at EU level.

- Harmonisation and closing regulatory gaps: the ESPR, with a Regulation as a legal instrument, would bring harmonisation and stop the proliferation of unilateral measures by Member States (e.g. for scoring, labelling, sorting). Unilateral measures bring barriers to the free movement of goods, increased costs or contradictions to the principles of a circular economy. Provided that the ESPR creates maximum harmonisation at EU level, it would create a level playing field for EU and imported products and boost the competitiveness of the industry.
- Increased circularity and material efficiency: common design criteria supported by standardisation could pave the way for the uptake of circular business models (CBM) based on reuse, repair, refurbishment, remanufacturing, leading to product and components lifetime extension. In addition, design which facilitates recycling would bring solutions for the scarcity of primary raw materials and challenges of supply, by supporting more generation of secondary raw materials. As a result, environmental impacts such as waste generation and carbon footprint would also be partly addressed.

Considering the market size of the furniture industry and the volumes produced, we believe that the potential of transitioning to a more circular economy in the industry is significant. While we agree that prioritising furniture is reasonable, we would like to share comments on parts of the JRC report, Annex 5, Factsheet on Furniture, as we believe there are some elements that do not represent the furniture industry correctly and/or are not substantiated enough. Please see the overview in Annex I at the end of the document (section 4 of detailed considerations).

However, while the ESPR can drive a circular economy forward, it focuses on products. Therefore, a combination of different tools and other legislation is needed to fully close the loop and enable a real transition to the circular economy, e.g. harmonised Extended Producer Responsibility (EPR) schemes, systems and facilities for the collection, sorting and recycling of furniture at the final end of its lifecycle. For example, a mature EPR system may establish relationships between producers and their customers, which may in turn support and accelerate transformation towards a circular economy. It may incentivise producers and industry to develop more recyclable products and materials, leading to longer product lifetime and to higher awareness and participation among consumers concerning recycling. In addition, regulatory barriers due to the current definition of waste would need to be addressed to enable more repair, refurbishing as well as a larger use of secondary materials. Skills needs, among others, would need to be addressed as well. In addition, policymakers should build a system with the right incentives to make circular business models (e.g. repair, refurbishment, remanufacturing) economically viable and possible at a larger scale.

¹ Very commonly in the form of wood-based panels

² <https://www.efic.eu/efic-best-practices>

2. Ecodesign requirements for furniture

The furniture industry largely consists of SMEs & microenterprises, therefore the performance and information requirements should be manageable for all companies. EFIC is ready to provide sector-specific expertise and the industry should be consulted in all stages, including in the Ecodesign Forum, preparatory study, impact assessment and others.

Consider also that standardisation committee CEN TC 207 (Furniture) and its WG 10 (Requirements and tools for furniture circularity) has started developing standards for product aspects under article 5 of the ESPR, starting with a standard on dis/reassembly, expected to be published in 2023. It will be followed by further and more far-reaching initiatives such as standards for repairability, durability and product life aimed at supporting a circular approach in the furniture industry, as well as evaluation methodologies. These standards should be used as a basis or considered in parallel for the development of a delegated act for furniture, and whenever relevant be harmonised at EU level for presumption of conformity.

After assessing both the ESPR questionnaire and the JRC report, the industry has some open questions, such as the below:

- The industry wonders how the ecodesign requirements will work in practice if in the ESPR they are developed for end- and intermediate products at the same time and some intermediate products used in furniture are not addressed at the same time as furniture (for example textiles, steel or glass). It could make sense that furniture manufacturers refer to the delegated act covering an intermediate product used in furniture.
- In addition, in the JRC report, furniture and mattresses, two product groups that overlap in some aspects (and producers), have been identified as separate product groups. This raises the question as to which product group certain products would fall under (e.g. sofa beds or box springs). We believe that the requirements for furniture and mattresses should be established in parallel and aligned to the largest extent possible.
- Flame retardants are excluded from the scope of chemicals as intermediate products in the JRC assessment. We understand that they can still be tackled under the ESPR as ‘substances used in products’. The furniture industry needs support to move away from the use of unwanted flame retardants, often necessary due to certain national flammability requirements. A coherent and harmonised approach is needed across the EU. EN 1021/1 (smoulder ignition test) should be converted into a harmonised standard and used as the reference standard to prove compliance with the ESPR whenever flammability requirements are already in place at national level. With this, open flame tests would be avoided (which can generally only be fulfilled with the use of flame retardants) and the furniture industry would be supported in becoming more circular, combining fire safety, chemical safety and green transition objectives.

2.1 Response to ESPR consultation

2.1.1 Level (within furniture product group) at which requirements should be laid down

The furniture range is very diversified, with many furniture types and materials used. Therefore, it would be difficult to have ecodesign requirements that apply on a general (horizontal?) level to all products that fall within the scope of furniture.

Here it should be investigated per requirement whether and in which way they are generally applicable to all furniture or if they are applicable separately and with different detailed requirements for subgroups of furniture.

Some requirements may be applicable to many types of furniture, such as design for disassembly or separability. Here it should be considered that a) not all furniture has to be fully disassemblable and that the focus of disassemblability should be on 'priority parts' and that b) separability should focus on materials that hinder the recycling process. Other requirements are material-specific (recycled content) or product type-specific (durability).

Considering the above, the delegated act must allow for a diversity of relevant requirements where the focus should be on which impact objective to be achieved in terms of reduced ecological and climate footprint. Requirements should be set having a holistic approach and from a lifecycle perspective, not only considering the individual effect of one requirement. Any requirement set should not have a negative effect on other important ecodesign criteria or be in contradiction.

In standardisation, furniture is categorised based on a) Usage areas³ and b) Functionality⁴, which would also allow an easy comparison of products within the same product group. However, both categorisations would need to be more deeply assessed having the setting of ecodesign requirements in mind, as above.

We believe that some sort of categorisation would be needed within the delegated act, most probably in furniture subgroups. We must consider on the one hand the differences or commonalities in product types (functionality, materials, design, composition, structure, spare parts⁵) and on the other hand the environmental impact of each subgroup.

EFIC experts will be glad to assist in the subcategorization of the furniture world both via the upcoming preparatory study and in the Ecodesign Forum.

2.1.2 Three chosen requirements from the consultation questionnaire that would suit furniture best

Among the proposed prioritised ecodesign requirements in the consultation questionnaire, we believe that the following are the most suitable for the furniture industry: a) improving durability and reliability, b) ease of repair and maintenance, c) ease of refurbishment, remanufacturing and upgradability. These requirements would allow lifetime extension of furniture products, components and materials. In turn they would contribute to a number of important impact objectives such as more efficient utilisation of raw materials, reduced generation of waste and reduced emissions of greenhouse gases.

2.2 Assessment of the potential performance and information requirements for furniture proposed by JRC (Annex 5, Factsheet Furniture)

Please see also see section 2.1.1 on the level at which the ecodesign requirements should be set.

As explained above, some requirements may be applicable to many types of furniture, such as design for disassembly or separability (with the limitations explained in the previous section and in the table below). Other requirements are material specific (sustainable sourcing, recycled content).

Some performance requirements could lead to unavailability of materials or recyclates, or could be

³ A) Usage areas: Domestic furniture, Non-domestic furniture, Children and nursery furniture, Office furniture, Outdoor furniture, Educational furniture, Furniture surfaces, Hardware furniture

⁴ B) Functionality: Storage, Tables/Desks, Seating, Beds & Mattresses, Learning (eg. Writing boards)

⁵ As an example, there are large differences between upholstery and storage furniture

contradictory in relation to the other ecodesign criteria (e.g. to durability). More details are provided in the table below.

Hence a holistic approach from a lifecycle perspective is needed when setting the requirements, considering not only the individual effect of the requirement.

In addition to the requirements proposed in the JRC report, renewable content / biodegradable materials should be considered as a criterion. The use of renewable materials is an important aspect of the circular economy. Wood and wood-based products represent a large share of the materials used in the furniture industry, wood being a renewable raw material with carbon storage effects.

To the individual requirements proposed in the JRC report for Furniture:

	Performance requirement proposed by JRC in blue EFIC comment below	Information requirement proposed by JRC in blue EFIC comment below
Disassembly & separability Spare parts	<ul style="list-style-type: none"> • <i>Design for disassembly to increase material recovery</i> • <i>Design techniques that easy non-destructive disassembly and re-assembly of specific components in furniture products</i> • <i>Design to facilitate the further separation of recyclable materials</i> • <i>Compatibility with commonly available spare parts in furniture products</i> • <i>Availability of spare parts for the product</i> 	<ul style="list-style-type: none"> • <i>Ease disassembly</i>
<p>There is a distinction to make between separability and disassemblability:</p> <ul style="list-style-type: none"> • Separability is related to recyclability and concerns the separability of material fractions (especially for recycling purposes). • Disassemblability is broader, as it is connected to prolonging life – mostly connected to part-level (e.g. to move, repair etc.) not necessarily material-level. 		
	<p>Generally speaking, disassembly can apply to many types of furniture, with some exceptions such as mono-block furniture. However:</p> <ul style="list-style-type: none"> • It should be considered that a) not all furniture has to be fully disassemblable, that the focus of disassemblability should be on 'priority parts' and that b) separability should focus on materials that hinder the recycling process. Not all furniture has to be fully disassemblable as e.g. safety implications should be considered (such as in the case of electronic parts or school furniture). Concerning the focus on 'priority parts': it is necessary to prioritise certain parts because not all will be equally relevant to the circular strategy operations or to the crucial aspect of extending product lifetime. The focus should be on the 	<ul style="list-style-type: none"> • Separability is mostly addressed to recyclers. • Disassemblability is broader and mostly addressed to consumers and repairers.

	<p>availability of such spare parts in the supply chain, which can be specified in accordance with the digital product passport. The availability of such spare parts should be in line with the circular economy and resource efficiency principles, which means that these should not be stored at different places in the supply chain nor stocked indefinitely.</p> <p>The reference to “recyclable” material in ‘design for separation of recyclable materials’ may be challenging if it requires knowledge of current recycling at local level.</p> <p>The term "easy" in the context of disassemblability is not easy to quantify.</p>	
<p>Reuse/repair/refurbish/recycling</p>	<ul style="list-style-type: none"> • <i>Design to facilitate reuse, repair, refurbishing or recycling</i> <p>As performance requirement it is very broad, but as an end goal it is important, leading to product and component lifetime extension.</p> <p>Consider that the R-strategies "repair" and "refurbish" is what makes "reuse" possible in the first place. In this respect, the term "design to facilitate reuse" is very general.</p>	<ul style="list-style-type: none"> • <i>How to repair a product to increase durability</i> <p>As information requirement there is a need to differentiate depending on the addressee (layman or professional repairer) and to apply it as appropriate.</p> <p>Nota Bene: A repair is not a measure to increase durability but to extend the lifespan of a product.</p>
<p>Durability / reliability & Lifetime (extension)</p>	<ul style="list-style-type: none"> • <i>Design ensuring the durability of products</i> • <i>Minimum durability of the product (under normal conditions of use)</i> • <i>Minimum reliability (resistance to stress or weathering)</i> <p>Durability as performance requirement: it is important to consider existing durability standards.</p>	<ul style="list-style-type: none"> • <i>How to maintain a product to increase durability</i> • <i>How to use and maintain the product to avoid its premature substitution/replacement (or of its components)</i> <p>When it comes to durability as an information requirement, it is important to align it with care and maintenance instructions.</p> <ul style="list-style-type: none"> • <i>Expected lifetime of the product (under normal condition of use)</i> <p>The definition of lifetime is unclear (“technical lifetime” vs ‘actual lifetime’ also considering repair, refurbishment etc.). Also, lifetime is a concept that is difficult to assess with the integration of circular economy strategies (e.g. a product that is repaired, refurbished, etc.). CEN TC 207 will address this topic in a project group.</p>
<p>Sustainable sourcing</p>	<ul style="list-style-type: none"> • <i>Minimum content of raw material with sustainability certification per unit of product</i> • <i>Sourcing of materials from certified sustainable practices</i> 	<ul style="list-style-type: none"> • <i>Content of raw material with sustainable certification per product</i> • <i>Sourcing of materials from certified sustainable practices</i>

	<p>As performance requirement, there is a risk of potential material scarcity/competition for certified materials. Costs for third party verification should also be considered.</p>	<p>As an information requirement, it is unclear how 'sustainability certification' and 'certified sustainable practices' are defined. Consider that certification does not exist for some materials, therefore the requirement would be material dependent.</p>
Recycled content	<ul style="list-style-type: none"> • <i>Minimum recycled content per kg or unit of product (or component)</i> • <i>Minimum recycled content per piece of furniture</i> <p>For recycled content as a performance requirement, several aspects should be considered. It cannot be applicable to all materials in the same way and implications should be assessed on a material basis. It should not have a negative effect on other important ecodesign criteria (e.g. durability, quality, performance or functionality). We need to carefully consider the technical possibility of replacing virgin with recycled material, as well as the concrete availability, quality and safety of recycled materials and maturity and size of the market.</p>	<ul style="list-style-type: none"> • <i>Recycled content per piece of furniture</i> • <i>Percentage of recycled materials in furniture components</i> <p>Information on the percentage of recycled materials in furniture components could make sense although please consider that there are no common ways of measuring recycled content and it is material dependent.</p> <p>A first step for the ESPR could be to set common methodologies at EU level to measure and communicate recycled content. The communication of this information could be voluntary at first, but in line with EU standards/rules.</p>
Material use	<ul style="list-style-type: none"> • <i>Limiting the number of materials used in a single furniture product</i> • <i>Use of component and material coding standards for the identification of components and materials</i> <p>It is unclear how material is defined and whether composites such as particleboards are one material or several. We believe that instead of limiting the number of materials, it is more important to have a holistic approach and to make sure that any requirement does not have a negative impact on other ecodesign criteria, but rather achieves the intended impact objectives. Limiting the number of materials used does not necessarily lead to a more sustainable and resource-saving product. For example, we consider the separability of materials that go through different recycling processes to be more important than a possible limitation of the number of materials.</p> <p>We believe that it is important for legislators to set the impact objectives to be achieved and to consider that technology will provide different solutions to attain these objectives.</p>	
Energy use	<ul style="list-style-type: none"> • <i>Minimum percentage of energy use from low carbon sources</i> 	<ul style="list-style-type: none"> • <i>Minimum percentage of energy use from low carbon sources</i>
	<p>It will be almost impossible to define at product level, as suppliers differ. It may be possible at company level, but the benefits should be weighed against the efforts/ costs and attention should be paid to potential duplications with other regulations (e.g. corporate sustainability reporting).</p>	

3. Horizontal measures

Durability

We are replying to the questions on durability as a horizontal measure considering furniture as a product group and not furniture compared to other product groups, as the questionnaire requires selecting only one product group.

The questionnaire refers to "durability" merging together aspects that refer to both technical durability (e.g. resistance to stress) and reparability (e.g. a reparability index). Today, European standards for durability are very specific depending on the product (e.g. seating units, tables, storage) and hence they cannot be "horizontal" for all furniture. However other examples listed (e.g. a reparability index) go beyond what we generally understand as "durability" in technical terms and could have criteria which are of general application to the furniture range.

Hence we have selected 'No' as an answer.

Consider that CEN TC 207 is starting to work on durability and reparability as of May 2023.

Recyclability

A horizontal measure for recyclability could in principle work for furniture even if there are large differences in furniture types. Mattresses have similar characteristics therefore a horizontal measure for both groups could in principle work.

Post consumer recycled content

We have selected 'No' as an answer. There are many challenges connected to introducing a horizontal measure on post-consumer recycled content. Several aspects should be considered. It cannot be applicable to all materials in the same way and implications should be assessed on a material basis. It should not have a negative effect on other important ecodesign criteria (e.g. durability, quality, performance or functionality). We need to carefully consider the technical possibility of replacing virgin with recycled material, as well as the concrete availability, quality and safety of recycled materials and maturity and size of the market.

4. ANNEX - Comments on JRC assessment (Annex V, Furniture Factsheet)

JRC extract 1 - 'Soil Effects' section: "Environmental Impact: The main effects of furniture life-cycle on the soil is strictly related to the sourcing of raw materials like forestry products (wood, wood-based, rattan, bamboo), plastic and metals. Especially the forestry products have a direct impact on soil, land use change, and soil degradation, which are related to their management (10)."
"Improvement potential: The improvement potential of the furniture sector lies in sourcing of legal timber for furniture production (13). 'Biodiversity Effects' section: "Environmental Impact: The effect on biodiversity for furniture is strictly related to the use of forestry products (wood, rattan, bamboo), because an unsustainable production of these specific materials negatively affect biodiversity (10). Currently, the majority of the furniture market does not assure that forestry materials come from forests sustainably managed. "Improvement potential: The improvement potential of the furniture sector lies in sourcing of legal and sustainable source timber for furniture production (13). In addition to that the design for disassembly and repair, re-use and recycle would lead to an increase of the lifespan and a decrease of the need of virgin materials and the biodiversity impacts associated to the extraction.

Comment EFIC: The legal obligations on the furniture industry include that all forestry products used in furniture are legally harvested (the sector respects the requirements as imposed by EUTR, in place since 2013), but in future are also deforestation free (as per the recently passed Deforestation Regulation effective from end 2024 onwards). The branch often goes one step further and uses wood from sustainably managed forests. The widespread use of FSC/ PEFC certified materials may serve as proof of this.

JRC extract 2 - 'Air Effects' and 'Human Toxicity'. Air Effects [3] Environmental impact: Medium Furniture contain substances like biocidal products, flame retardants, adhesives, resins, paints, varnishes, inks, dyes, plasticisers and foaming agents, which affect the indoor environment releasing mainly VOC (10). VOC emitted from furniture are one of the factors affecting air quality and human health (11). The use of hazardous substances in manufacture, such as surface coating operations have some significant environmental impacts due to chemicals used during processes (10). Human Toxicity [2] Environmental impact: Medium The production and use phase of the furniture expose humans to several harmful substances like biocidal products, flame retardants, adhesives, resins, paints/varnishes/inks/dyes, plasticisers and foaming agents (10).

Comment EFIC: Please note that biocidal substances are not generally used across all furniture products and are more likely – if at all - to be used for outdoor furniture only.

Also, we must distinguish between process chemicals and the substances that can cause emissions from the final product. Although some substances are reactive (e.g. glue or varnish), they will react during the manufacturing process and are therefore of no concern when using the finished piece of furniture, provided that regulatory requirements are observed. REACH is the relevant piece of legislation to cover these aspects. In addition, occupational safety regulations exist that ensure workers' safety. In this regard, the problem description may be misleading.

Consider also that VOCs as a generic group of substances are not per se responsible for the impairment of indoor air quality or health. It is individual compounds from the group of VOCs for which there are toxicologically derived LCI values. However, this does not apply to "VOCs" as a whole. Therefore, a differentiated consideration is necessary here.

JRC extract 3 - 'Waste Generation and Management' 'In EU Member States each year, 10 million tonnes of furniture are discarded, the majority of which is inadequately disposed of. One of the main problems with this high number, is the elimination of new furniture that is not sold, indicating significant overproduction (19).

Comment EFIC: The EEB case study cited as a source (New EU Eco/design Proposals: Case Studies to Illustrate their Potential Impact. European Environmental Bureau, Final Report) refers explicitly to office furniture and specifically to office desks and office chairs in France. The findings can therefore not be transferred to the entire European furniture market. It is unclear how the percentage of 2.3% unsold furniture goods in France (ADEME 2021) has been gathered/calculated. Note that the percentage of 46% of furniture 'destroyed or recycled' which is referenced in the EEB case study cannot be found in the ADEME report. Please keep in mind that the production of furniture is usually only started upon request of the customer or retailer, therefore we have no reason to believe there is a major overproduction of furniture, considering also corporate cost optimization principles.

JRC extract 4 - 'Material efficiency' and the statements 'The potential for improvement in furniture sector lies in moving away from cheaper materials and poor product design' & 'The improvement potential of the furniture sector lies in using different materials to plastic and metals to decrease the energy consumption during manufacturing

Comment EFIC: Please keep in mind that all requirements should be based on a holistic approach, should not negatively influence other eco-design criteria and should focus on impact objectives (durability, resource efficiency, reduction of waste generation, reduction of greenhouse gas emissions, etc.). There is also the question of what is meant by "cheaper materials".

JRC extract 5 - Climate change / Life cycle energy consumption Most of the energy consumption is related to the manufacture the product, particularly in injection-moulded plastics and wood-based panels due to the use of elevated temperatures and pressures (10). Surface coating operations also have some significant environmental impacts due to high-temperature curing processes (10). Currently the use of engineered wood-based components has also grown considerably in the building sector (1). Injection-moulded plastics and wood-based panels have a significant impact in terms of energy consumption due to the use of elevated temperatures and pressures when manufacturing.

EFIC comment: The basis of this analysis is also the EEB report, focusing on office furniture. In this respect, findings and data cannot be scaled up to all furniture, and the same applies to the conclusions.

UV coatings predominantly used in the coating of lacquered furniture are cured by a chemical process triggered by UV radiation. The UV radiation from the corresponding UV lamps is the energy required for this process and not the temperature.

The statement that wood-based panels need high temperatures and pressures for their production and thus have a corresponding energy requirement is correct. The difference to the moulded plastic parts mentioned at the same time, however, is that the energy for wood-based panel production is based to a very large extent on the CO₂-neutral combustion material wood, and the required incineration plants are part of a site where wood-based panels are produced.

EFIC is the European Furniture Industries Confederation, representing over 70% of the total turnover of the European Furniture Industries, a sector employing 1 million people in about 120.000 enterprises across the EU and generating a turnover of over 100 billion Euros. EFIC is composed of 17 national associations, one individual company member and several clusters. Further information: <https://www.efic.eu/>

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