Contact person RISE
Hanna Lindén
Material and Production
+46707806201
hanna.linden@ri.se

European Commission
Brussels, online
https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13682-New-product-priorities-for-Ecodesign-for-Sustainable-Products_en

Remittance – Open public consultation on new product priorities for Ecodesign for Sustainable Products

Abstract

The section below provides an abstract on the content and status of the Ecodesign for Sustainable Products Regulation (ESPR). **Comments from RISE on this current open consultation begins in section *1. General comments regarding new product priorities for Ecodesign for Sustainable Products.***

The European Commission holds an open public consultation on new product priorities for the Ecodesign for Sustainable Products Regulation (ESPR). The ESPR proposal aims to reduce the environmental impacts of products across their life cycles and to improve the functioning of the EU's internal market. It proposes to do this by building on the successful approach pioneered under the current Ecodesign Directive 2009/125/EC, which applies to energy-related products only. It proposes to extend the Ecodesign Directive to cover a very broad range of physical products and to strengthen its provisions. This would enable the ESPR to set a range of far-reaching performance and information-related requirements – known as 'ecodesign requirements' – for specific product groups, to improve product circularity, energy performance and other environmental sustainability aspects. For groups of products that share a set of common characteristics, horizontal rules could be set. The proposal will enable ecodesign requirements to be set on a wide range of aspects, including:

- product durability, reusability, upgradability and reparability
- the presence of substances that hinder circularity
- energy and resource efficiency
- recycled content
- remanufacturing and recycling
- carbon and environmental footprints
- information requirements, including a Digital Product Passport

The Joint Research Centre (JRC), the European Commission's science and knowledge service, has drafted a technical report which aims to suggest a number of product groups (table 1) and horizontal measures that may be suitable candidates for prioritisation under ESPR, once it enters into force.

Table 1. Initial list of products: shortlisted (end-use & intermediate) and not-shortlisted

End-use products	Intermediate products	Not shortlisted products
Absorbent Hygiene Products	Aluminium	Biofuels
Bed Mattresses	Chemicals	Books and Printed Paper
Ceramic Products	Glass	Candles
Cosmetic Products	Iron and Steel	Cotton buds
Detergents	Paper, Pulp Paper and Boards	De-icers
Fishing Nets and Gears	Plastic and Polymers	Means of Transportation (road)
Furniture	Non-ferrous Metal Products	Office and Hobby Supply
Lubricants		Pest Control Devices
Paints and Varnishes		Sanitary Additives
Textiles and Footwear		Ski Wax
Toys		Solid Fuels and Firelighting Products
Tyres		Waste Containers for Separate Glass Collection
		Wet Wipes

Table 1 Preliminary product groups suggested by the JRC

Horizontal measures are intended to apply to two or more product groups which display sufficient technical similarities to allow a product aspect to be improved based on a common requirement(s). Five aspects for horizontal measures was assessed in the draft technical report by the JRC:

- durability *(first consideration)*
- recyclability *(first consideration)*
- post-consumer recycled content *(first consideration)*
- lightweight design *(will be further elaborated)*
- sustainable sourcing *(will be further elaborated)*

The purpose of this consultation is for the Commission to seek feedback on:

- whether the products and horizontal measures identified as potential priorities under the ESPR are the best
- the order of priority in which these products should be tackled
- the most relevant aspect(s), per product/horizontal measure, to tackle under the ESPR
- the estimated potential for improving the product aspects identified by the ESPR proposal from an environmental point of view, per product/horizontal measure
- the level of detail for each product/horizontal measure at which requirements under the ESPR should be set (i.e. the level at which rules should be set)
- (in general) environmental and circularity aspects of the related value chains; how the value chains operate
- how to best to ensure that future rules under the ESPR are technically feasible and can be implemented

1. General comments regarding new product priorities for Ecodesign for Sustainable Products

RISE supports the proposal for a regulation on ecodesign for sustainable products and has, in addition to a continuous focus on the environmental sustainability of materials and products, for a number of years actively worked with transparency and traceability issues and the importance of information transfer in value chains to enable circular flows. Since 2005, in the implementation phase of REACH, a supportive industry network was created at RISE focusing on chemical management[1]. As expansion and targeted support, the Swedish Government pointed out substitution, whereby the Swedish Centre for Chemical Substitution[2] at RISE were initiated. In addition, RISE have worked on technical development for recycling and reuse, material/product evaluation as well as guidelines, support, and tools to catalyze circular product and material flows. We see that the Commission's proposal to a large extent addresses the conditions we see as absolutely necessary to achieve set goals addressing the environment and sustainability. The right choice of materials and processes, design for circularity and making relevant information available from cradle to grave is a prerequisite for resource-efficient use of materials. In many sectors, we see an intensive development of circular business models, reuse, remanufacturing and recycling. Here, clear requirements regarding sustainable products and information transfer are key to success and upscaling. Also, there is a need for clear definitions and/or guidelines towards description of for instance reusable, recyclable or recycled content.

RISE's views and comments mainly concern the parts that relate to information needs and the level of detail regarding information as well as technical aspects regarding information sharing. With regard to information sharing in value chains and the digital information carriers that may be relevant here, it is also important that harmonization with other product oriented EU legislation, such as RoHS and WEEE, is carried out. In addition, harmonization between current chemicals legislation and envisaged regulation within the Ecodesign Regulation is needed, as well as a sufficient degree of flexibility to deal with future scenarios and rapid technology development.

2. Specific comments and viewpoints

In addition to the comments that are provided as general comments (above), follows below also specific comments related to the product categories textiles, furniture and steel and non-ferrous metal products. This selection of specific comments should be seen as exemplification of input on some of the product categories proposed by the JRC. For these product categories (amongst others) RISE also has extensive expertise.

2.1 Comments regarding textile

In the current ESPR proposal, different types of information needs are specified; information for consumers and other end-users on how the product should be installed, used, maintained and repaired in order to minimize its environmental impact and ensure optimal durability and how to return or dispose of the product at the end of its useful life; information on treatment facilities for dismantling, recycling or final treatment; any other information that may affect the way the product is handled by parties other than the manufacturer; as well as the name and

[1] https://www.ri.se/en/what-we-do/networks/the-chemicals-group
[2] https://www.ri.se/en/centre-chemical-substitution

details of the substances of concern in the product. RISE agrees with this, but also wish to *emphasize the information needs regarding the initial composition of the product at material* level, such as yarn composition and fabric construction, as well as *relevant information linked to chemical content* in addition to substances that give rise to concern. Here, it is crucial to harmonize with the current fiber regulation stating material content of textile goods. The development of new materials, manufacturing methods and recycling processes is advancing rapidly, which is why it is important to take into account *information that is important for the further use of the material or product in other applications or processes*. Here the dyeing method, or detailed information regarding the composition and production method of a mixed material can be mentioned as examples. *Information of a certain granularity will be essential to enable efficient material sorting and upscaling of textile recycling*. This comment is important in relation to the horizontal measure *Recyclability*. RISE agrees with the three chosen horizontal measures durability, recyclability and post-consumer recycled content. The horizontal measure *post-consumer recycled content* is essentially dependent upon the development of a functional DPP to scale the availability of fiber from post-consumer sources. However, this detailed information need can also be addressed through product-specific measures.

Needs-adapted, and sufficiently granular information, is essential for how well the product passports is able to meet the needs we see linked to resource efficiency and circularity. Used correctly, these digital tools can provide the information that today constitutes the missing link for upscaling of, for example, sorting- and recycling processes. Access to information regarding textile products, and the need for closer collaboration in the value chains which will follow, is key to increased sustainability and circularity for textiles. We therefore *agree that textiles should be a prioritized product group.*

In the field of textiles, RISE is active in research and development all the way from feedstock, through processing technology and to end-of-life handling, including all relevant testing and analysis. This is complemented by textile oriented testbeds covering a wide range of equipment. RISE has extensive research within the field of textiles and sustainability, as well as related to traceability issues. Examples of relevant research project with results within this area e.g. include;

- CISUTAC[3] - Increasing Circularity and Sustainability in Textiles and Clothing in Europe
- CIRPASS[4] - Piloting digital product passports for batteries, ICT-solutions and textiles
- Tex.IT, RFID Information System for Future Textiles[5] – Detailing information needed for textile circularity and requirements on sorting facilities
- Framework for circular textiles[6] - Classification of recycled textile material and criteria for recyclability
- Classification and risk assessment of textile for recycling[7] - Chemical profile of textile material categories and the possible implications for recycling

[3] CISUTAC, https://www.cisutac.eu/about
[4] CIRPASS, https://cirpassproject.eu/
[5] Tex.IT, RFID Information System for Future Textiles, https://www.ri.se/sv/vad-vi-gor/projekt/informationssystem-for-framtidens-textilier-rfid
[6] Framework for circular textiles, https://www.ri.se/en/what-we-do/projects/framework-for-circular-textiles
[7] Classification and risk assessment of textile for recycling, https://www.ri.se/en/what-we-do/projects/classification-and-risk-assessment-of-textile-for-material-recycling

2.2 Comments regarding furniture

Furniture is one of the categories that is suggested by the JRC as a priority. The furniture category is described 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."

Further, the JRC report states that: "furniture exhibited a high improvement potential in terms of waste generation and lifetime extension, which could be improved by performance requirements on design for durability, design for reliability e.g. resistance to stress or weathering), design for disassembly, design for refurbishing and/or recyclability, availability of spare parts and mandatory minimum recycled content materials. These circularity measures have the potential to extend the lifetime of the product or its component, potentially saving on new resources, and therefore having an effect on other categories such as air, soil and biodiversity." RISE agree on the need of *increased focus on design for durability, disassembly, refurbishing and similar actions in order to extend the life length of products*, as these aspects as highly important aspects that need implementation in order to ensure circularity and sustainability on a large scale. Also, it is of importance that *different circular business models and circular flows* are contemplated when *setting the information requirements* of the digital product passport, as the variety of models bring about different information needs. This is equally important regarding the issue of whether the DPP is to correspond to the model, batch, or item level.

The furniture industry and related value network in e.g. Sweden has worked much in this area, for example in several research project, many of which has relevant reports published on the topic;

- Business model innovation for circular furniture flows[8]
- Scenarios for circular furniture flows 2030[9]
- Roundtables for Circular Economy[10]
- Sustainable Interior[11]
- Product passport as an enabler for circular flows of furniture[12]
- Knowledge Transfer for Circular Business Ecosystems[13]

2.3 Comments regarding steel and non-ferrous metal products

As mentioned in the JRC draft report, Iron and Steel, non-ferrous metal products, and Aluminum are the product groups with the highest environmental relevance among the intermediate products. For a Steel producing country as Sweden, this intermediate product category is of high relevance.

---

[8] Business model innovation for circular furniture flows, https://www.ri.se/en/what-we-do/projects/circular-furniture-flows and https://cirkularitet.se/

[9] Scenarios for circular furniture flows 2030, https://www.ri.se/en/what-we-do/projects/scenarios-for-circular-furniture-flows-2030

[10] Roundtables for Circular Economy, https://www.ri.se/en/what-we-do/projects/roundtables-for-circular-economy

[11] Sustainable Interior, https://www.ri.se/en/our-stories/labelling-for-making-office-moves-sustainable

[12] Product passport as an enabler for circular flows of furniture, https://www.ri.se/en/what-we-do/projects/product-passport-as-an-enabler-for-circular-flows-of-furniture

[13] Knowledge Transfer for Circular Business Ecosystems, https://www.ri.se/en/what-we-do/projects/knowledge-transfer-for-circular-business-ecosystems

Regarding the *non-ferrous metal products group*, RISE believes that it is *a very diverse group, and too diverse to be kept as one group.* As an example, lithium ion batteries, which are a key component in electrical vehicles contains cobalt, manganese and nickel in hundred-kilo-amounts and lithium in kilo amounts. Permanent magnets, used in electrical motors, contains the rare earth element neodymium. An electrical car battery contains about a kilo permanent magnets and a wind turbine some hundred kilos.

Today many products containing valuable materials are not designed in a way that these material can be recovered when the product reaches its end of life. The permanent magnets used in an engine block cannot be taken out before the recycling process starts and ends up in the slag (waste fraction) while the iron in the engine is recycled.

In the area of metals, RISE has a wide competence accompanied by processing facilities, testing and analysis, covering the value chain. Relevant projects with results related to this area, include e.g. the following examples;

- Sustainable casting through alternative utilization of chips and biproducts[14]
- Carbon capture, utilization and storage with Swedish mine tailings[15]
- IN CALM MIND - Innovation critical metals and mineral flows system demonstrator[16]
- Utilization of organic sludge in the metal industry - OSMET 3.0[17]
- Feasibility study: Five circular material streams for batteries
- Ongoing application for a Competence Centre for the metal and mining industry

[14] Sustainable casting through alternative utilization of chips and biproducts, https://www.vinnova.se/en/p/sustainable-casting-through-alternative-utilization-of-chips-and-biproducts/

[15] Carbon capture, utilization and storage with Swedish mine tailings, https://www.ri.se/en/what-we-do/projects/carbon-capture-utilization-and-storage-with-swedish-mine-tailings

[16] IN CALM MIND - Innovation critical metals and mineral flows system demonstrator, https://www.vinnova.se/en/p/in-calm-mind---innovation-critical-metals-and-mineral-flows-system-demonstrator/

[17] Utilization of organic sludge in the metal industry - OSMET 3.0, https://www.ri.se/en/what-we-do/projects/utilization-of-organic-sludge-in-the-metal-industry-osmet-30