

# EUROPEAN SPACE SECTOR FEEDBACK ON “NEW PRODUCT PRIORITIES FOR ECODESIGN FOR SUSTAINABLE PRODUCTS”

**Reference: European Commission Call for Evidence (ref. Ares(2023)693197) of 31 January 2023) titled “New product priorities for Ecodesign for Sustainable Products”**

This is the joint contribution of the European Space Industry, represented by ASD-EUROSPACE – with the support of European and national space agencies – to the European Commission’s (COM) Call for Evidence (CfE) on “New product priorities for Ecodesign for Sustainable Products”.<sup>1</sup> It has been prepared with support of the **CSS Space Focus Group**, a splinter group of the Materials and Processes Technology Board of the European Space Components Coordination (ESCC MPTB) established in April 2021.<sup>2</sup>

This feedback follows on our previous contributions on the COM Sustainable Products Initiative (SPI) and the COM Proposal of 30 March 2022 for an Ecodesign for Sustainable Products Regulation (ESPR); these are listed at the end of this paper in Table 2.

## ABOUT THE PRESENT CALL FOR EVIDENCE

According to the CfE a number of **new products** (including **12 end-use** and **7 intermediary products**) and **horizontal measures** were identified as potentially suitable for first action under the ESPR:

- **End-use products:**<sup>3</sup> *Textiles and Footwear; Furniture; Ceramic Products; Tyres; Detergents; Bed Mattresses; Lubricants; Paints and Varnishes; Cosmetic Products; Toys; Fishing Nets and Gears; Absorbent Hygiene Products;*

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<sup>1</sup> Available at [https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13682-New-product-priorities-for-Ecodesign-for-Sustainable-Products\\_en](https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/13682-New-product-priorities-for-Ecodesign-for-Sustainable-Products_en).

<sup>2</sup> See the list of CSS Space Focus Group participants at the end of this contribution. For further information about the CSS Space Focus Group, please see Eurospace News Alert of 26 April 2021 ([link](#)).

<sup>3</sup> ‘End-use products’ are described by the JRC as products which are “***sold directly to consumers and are ready for their intended use***”.

- **Intermediary products:**<sup>4</sup> *Iron and Steel; Non-Ferrous Metals; Aluminium; Chemicals; Plastic and Polymers; Paper, Pulp Paper and Boards; Glass;*
- **Horizontal measures:**<sup>5</sup> *Durability; Recyclability; Post-Consumer Recycled Content. (For each horizontal measure, potential provisions via which they could be applied are put forward.)*

In relation to the proposed products, it is important to be aware of the suggested product group scope; it is summarised in the Table below:

**Table 1 Scope definition and market size in the EU of the 19 shortlisted product groups (Source: JRC, 2023)**

PRODUCT GROUP NAME	PRODUCT GROUP SCOPE	EU MARKET SIZE
ABSORBENT HYGIENIC PRODUCTS	Any article whose function is to absorb and retain human fluids such as urine, faeces, sweat, menstrual fluid or milk, excluding textile products. Products included are: baby diapers, panty-liners, menstrual pads, breast pads, tampons, incontinence products	6 bn EUR
BED MATTRESSES	Products consisting of a cloth cover that is filled with materials and that can be placed on an existing supporting bed structure or designed for free standing in order to provide a surface to sleep or rest upon for indoor use	10 bn EUR
COSMETICS	Any substance or mixture intended to be placed in contact with the external parts of the human body, or with the teeth and the mucous membranes of the oral cavity, with a view to cleaning them, perfuming them, changing their appearance, protecting them, keeping them in good condition or correcting body odours	80 bn EUR
CERAMIC PRODUCTS	Vitrified clay pipes and fittings, refractory products, expanded clay aggregates, household ceramics (e.g. tableware), sanitaryware, technical ceramics (aerospace, automotive, electronics, biomedical products industry), inorganic bonded abrasive	26 bn EUR
DETERGENTS	Products included are: laundry detergents, dishwasher detergents, hard surface cleaning products (i.e. all purpose cleaners, kitchen cleaners, window cleaners, sanitary cleaners), hand dishwashing detergents	40 bn EUR
FISHING GEARS	Any item or piece of equipment that is used in fishing or aquaculture to target, capture or rear marine biological resources or that is floating on the sea surface, and is deployed with the objective of attracting and capturing or of rearing such marine biological resources	2.4 bn EUR
FURNITURE	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.	140 bn EUR
LUBRICANTS	Product capable of reducing friction, adhesion, heat, wear or corrosion when applied to a surface or introduced between two surfaces in relative motion, or is capable of transmitting mechanical power. Composed of base fluids (80-75%) and additives (25-20%).	30 bn EUR
PAINTS	Coatings applied to buildings, their trim and fittings, and associated structures for decorative, functional and protective purpose. Includes also vehicle refinishes	17 bn EUR
TEXTILES and FOOTWEAR	Apparel and home/interior textiles consumed by households, and similar products consumed by government and business + footwear and technical textiles usually or also meant for consumers or specifically meant for industry. Excluded are: products for which textiles are not the dominant component and leather	175 bn EUR*
TOYS	The product group covers toys that consist of plastic, foam, silicone, rubber, textile, fur, leather, metal, paper, cardboard, wood, bamboo, or wood-based boards. Excluded: electronic toys	17 bn EUR
TYRES	Products included are cars (C1), tyres, vans (C2) tyres and heavy-duty vehicles (C3) tyres	45 bn EUR
ALUMINIUM	Aluminium and its alloys	40 bn EUR
CHEMICALS	Large volume inorganic chemicals: ammonia, nitric acid, sulphuric acid, phosphoric acid and hydrofluoric acid. Basic inorganic chemicals: caustic soda and soda ash (called sodium carbonate, including sodium bicarbonate), titanium dioxide (from the chloride and sulphate process routes), synthetic amorphous silica (pyrogenic silica, precipitated silica, and silica gel). Large volume organic chemicals: lower olefins by the cracking process, aromatics such as benzene/toluene/xylene (BTX), oxygenated compounds such as ethylene oxide, ethylene glycols and formaldehyde, nitrogenated compounds such as acrylonitrile and toluene diisocyanate, halogenated compounds such as ethylene dichloride (EDC) and vinyl chloride monomer (VCM), sulphur and phosphorus compounds and organo-metallic compounds	500 bn EUR
GLASS	Products included: container glass, flat glass, continuous filament glass fibre, domestic glass, special glass, mineral wool, high temperature insulation wools and frits.	30 bn EUR
IRON and STEEL	Iron and steel. Steel is an alloy of iron and carbon, where the carbon content can range up to 2% (when the carbon content is over 2%, the material is defined as cast iron)	125 bn EUR
PULP, PAPER and BOARDS	Pulp, paper and board obtained by chemical, kraft, sulphite, mechanical and chemi- mechanical pulping, recovered paper processing and papermaking	95 bn EUR
PLASTICS and POLYMERS	Plastic is a polymeric material that has the capability of being moulded or shaped, usually by the application of heat and pressure. It usually contains polymers and additives that give additional properties to the mixture. The scope is plastic basic materials, synthetic rubbers and hydrocarbons containing oxygen	405 bn EUR
NON-FERROUS METAL PRODUCTS	Intermediate products made of seven primary and secondary non-ferrous metals: copper, lead and/or tin, zinc and/or cadmium, precious metals, ferro-alloys, nickel and/or cobalt, carbon and graphite electrodes. Does not include aluminium	80 bn EUR

Figure I. Scope definition and market size in the EU of the 19 shortlisted product groups. \* Includes leather footwear

<sup>4</sup> 'Intermediary products' are described by the JRC as products "placed on the market as final products but requiring further manufacturing and/or assembly processes before being ready for use as end-products."

<sup>5</sup> 'Horizontal measures' are described by the JRC as "cross-cutting measures applicable to groups of products sharing enough technical similarities". It is noted that, in addition to the three product aspects proposed for first consideration, the aspects of 'light-weight design' and 'sustainable sourcing' are planned to be further elaborated at a later stage before the drafting of the ESPR working plan, according to the JRC.

Once adopted, the **first ESPR Working Plan** should serve as a key monitoring tool under the ESPR as it will set out a list of products and horizontal measures against which regulatory progress can be benchmarked. COM will prepare detailed impact assessments before adopting all specific and horizontal rules under the ESPR. Following this first online consultation, COM will run targeted consultation exercises, planned for the second quarter of 2023.

The purpose of this CfE is to seek the views of the general public and interested stakeholders (incl. industry) on what the priorities under the future ESPR should be, to refine **preliminary assessments made by the European Commission’s Joint Research Centre**,<sup>6</sup> close information gaps, help build consensus on future action under the ESPR and help prepare for a smooth implementation once it enters into force.

Even though the products manufactured in the European space industry (such as launchers, satellites and probes) are not amongst the new product priorities as set out in Table 1 above, we are concerned about a possible upstream impact. We would like to recall recital (16) of the COM ESPR Proposal, which states:

*“Similarly, the space industry is strategic for Europe and for its technological non-dependence. As space technologies operate in extreme conditions, any ecodesign requirements for space products should balance sustainability considerations with resilience and expected performance.”*

Against this backdrop, we provide the following comments:

#### COMMENTS ON THE NEW PRODUCT PRIORITIES

We **welcome** the apparent initial focus on simpler products, excluding very complex objects such as electronics. We also welcome the consideration of the EU strategic autonomy and resilience when prioritising products for ecodesign requirements, as alluded in the JRC study.

However, we are **concerned about the high number of products considered as a first priority**, regardless of their sometimes limited product group scope. **This includes many products that are used in the European Space Sector today**, such as:

- Ceramic Products; Lubricants; Paints and Varnishes (*excluding however paints used in non-road vehicles*)<sup>7</sup>

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<sup>6</sup> JRC, Ecodesign for Sustainable Products Regulation (ESPR) – preliminary study on new product priorities, 2023-01-27, available [here](#).

<sup>7</sup> According to the JRC this shall only include products falling under the scope of the Directive 2004/42/EC (known as the “Paints Directive”) for paints and varnishes. Paints and varnishes means coatings applied to

- Iron and Steel<sup>8</sup>; Non-Ferrous Metals (*incl. copper, lead and/or tin, zinc and/or cadmium, precious metals, ferro-alloys, nickel and/or cobalt, carbon and graphite electrodes*); Aluminium (*and its alloys*); Chemicals<sup>9</sup>; Plastics and Polymers; Glass.

Using the **ESA REACH Tool**<sup>10</sup> for mapping sectoral materials use, our preliminary analysis highlights impact from the Lubricants (30+ materials), Aluminium (20+) and Non-ferrous Metal Products (30+) product groups. We also anticipate downstream impact in our sector from many of the substances identified in the Chemicals (100+) and Plastics & Polymers (50+) product group.

Due to on-going major upheavals, such as the energy crisis, the war in Ukraine and instability of global supply chains, the European Space Sector is already at strain. Adding additional requirements to the products indicated above could necessitate a redesign (with subsequent consequences in requalification up to spacecraft level) and material shortages due to formal aspects and complication with compliance declarations. Against this backdrop, we are concerned that regulating these products in a similar timeframe could cause widespread and unforeseen **obsolescence** cases for materials and processes for space production.

We also note that there is **no clear definition of “consumer” products**, even though the description of ‘end-use products’ by the JRC is confined to products sold to consumers (see footnote 3). Hence, no clear distinction is made within the different products proposed between products sold to private consumers (B2C) and products sold to professionals, i.e. business (B2B) / to governments (B2G).

This confusion also leads to the erroneous coverage of professional/industrial products by the category of ‘end-use products’. As an example, according to the JRC the scope of the ‘end-use product’ **“ceramic products”** also covers “technical ceramics for

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buildings, their trim and fittings, and associated structures for decorative, functional and protective purpose. Paints used in non-road vehicles (i.e. boats, ships, aircrafts...) are not included.

<sup>8</sup> These materials are sometimes present in flight items and are even more often used for MGSE (Mechanical Ground Support Equipment) manufacturing.

<sup>9</sup> According to the JRC, “chemicals” in scope shall be large volume inorganic chemicals: ammonia, nitric acid, sulphuric acid, phosphoric acid and hydrofluoric acid. Basic inorganic chemicals: caustic soda and soda ash (called sodium carbonate, including sodium bicarbonate), titanium dioxide (from the chloride and sulphate process routes), synthetic amorphous silica (pyrogenic silica, precipitated silica, and silica gel). Large volume organic chemicals: lower olefins by the cracking process, aromatics such as benzene/toluene/xylene (BTX), oxygenated compounds such as ethylene oxide, ethylene glycols and formaldehyde, nitrogenated compounds such as acrylonitrile and toluene diisocyanate, halogenated compounds such as ethylene dichloride (EDC) and vinyl chloride monomer (VCM), sulphur and phosphorus compounds and organo-metallic compounds.

<sup>10</sup> The ESA REACH Tool is a materials obsolescence risk assessment tool developed for the European Space Sector, which can identify REACH impacted substances in space-relevant materials. While only representing a limited sample of all materials used in the European Space Sector, the analysis of the tool may help identify affected materials.

aerospace, electronics, etc.” even though the term of “end-use products” being the umbrella category should only comprise “products sold directly to consumers”.

In relation to “**paints and varnishes**”, it is our understanding that – since paints used in non-road vehicles are explicitly excluded – this group does not apply to space products. Hence, products such as black, white and in general all kind of space thermal control paints, spacecraft coatings and coating of space-related electronic components should be excluded.

**In order to address these concerns and avoid undesired obsolescence, we call for an explicit prioritisation of B2C products, with a clear legal definition of “consumer”, excluding professionals (B2B, B2G); at least, these different product groups should be clearly distinguished by customer group.<sup>11</sup>**

## COMMENTS ON THE HORIZONTAL MEASURES

We note that the emphasis of proposed prioritisation lies on ‘horizontal measures’. We understand that this would enable the setting of ecodesign requirements for a broader range of product groups which are believed to share “enough technical similarities”. We are concerned that this could undermine the product-specific approach of the ESPR Proposal. We expect it will often be very challenging in practice to determine “enough technical similarities” between different product groups, especially for B2B and B2G products which typically have a higher level of sophistication, performance requirements and tailoring as compared to B2C products.

**In order to address this concern, we recall the need for a product-specific approach where requirements are defined for a homogeneous group of products, and that “catch-all” horizontal requirements are limited to unambiguous cases.**

With regard to the scope of envisaged horizontal measures, which are to be restricted to groups of products sharing enough technical similarities, we would also like to recall the specificities of our products:

- **Post-Consumer Recycled Content is not a relevant aspect** for our products.
- **Recyclability is not relevant** for our products and components either, as far as they are designed to be sent into space and do not result in waste for treatment on Earth / in EU. Space use shall not have any limitation in material selection driven by substances impacting recyclability.

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<sup>11</sup> As an example, Article 2(1) of Directive 2011/83/EEC of the European Parliament and of the Council of 25 October 2011 on consumer rights ([link to consolidated version of 28.05.2022](#)) defines ‘consumer’ as “*any natural person who, [...], is acting for purposes which are outside his trade, business, craft or profession*”. According to the European Chemicals Agency (ECHA) ‘consumer uses’ are understood to refer to “*private households (= general public = consumers)*” ([link to ECHA-term](#)).

- **Durability**<sup>12</sup> and the need for it **depends on the type of product**. For products designed to be sent into space, only the Reliability aspect is relevant, since no repair/substitution is possible after launch. In some cases, due to safety aspects, it may even be preferred to have “less durable” products in order to allow better decomposition in case of re-entry. In any case, we believe that durability requirements are mission/application driven and shall be defined by space product manufacturers having the design authority, in collaboration with the upstream manufacturers of chemicals and other components.

As a result, we believe that **the horizontal measures currently envisaged (durability, recyclability, post-consumer recycled content) are not relevant nor appropriate to set for products designed to be sent into space**. This should be taken into account when defining the scope of ecodesign requirements for relevant upstream products, as part of horizontal or other measures.

## CONCLUSIONS

Even though the products manufactured in the European space industry (such as launchers, satellites and probes) are not amongst the new product priorities according to the present Call for Evidence, we are concerned about a possible upstream impact.

Therefore, as a sector with recognised specificities according to recital (16) of the Commission’s ESPR Proposal of 30 March 2022, we have provided the present contribution.

We welcome the initial focus on simpler products, excluding very complex objects such as electronics. We also welcome the consideration of the EU strategic autonomy and resilience when prioritising products for ecodesign requirements.

However, we are concerned about the high number of products considered as a first priority. This includes many products that are used in the European Space Sector today, such as Ceramic Products; Lubricants; Paints and Varnishes; Iron and Steel; Non-Ferrous Metals; Aluminium; Chemicals; Plastics and Polymers; Glass. This potential impact was also clearly confirmed by our preliminary analysis of a sub-set of space-relevant materials monitored under the MPTB. We are concerned that regulating all these products in a similar timeframe could cause widespread and unforeseen obsolescence cases for materials and processes for space production. Also, there is no clear definition of “consumer” products.

In order to address these concerns and avoid undesired obsolescence, we call for an explicit prioritisation of B2C products, with a clear legal definition of “consumer”, excluding professionals (B2B, B2G); at least, these different product groups should be clearly distinguished by customer group.

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<sup>12</sup> According to the JRC study “durability” covers the aspects of Reliability, Reparability, Reusability and Upgradeability.

“Paints and varnishes” for space production, such as black, white and in general all kind of space thermal control paints, spacecraft coatings and coating of space-related electronic components, should be excluded.

In relation to the proposed focus on horizontal measures, we recall the need for a product-specific approach where requirements are defined for a homogeneous group of products, and that “catch-all” horizontal requirements are limited to unambiguous cases. For products designed to be sent into space, we believe furthermore that the horizontal measures currently envisaged (Durability, Recyclability, Post-Consumer Recycled Content) are not relevant nor appropriate to set. Space use shall not have any limitation in material selection driven by substances impacting recyclability. This should be taken into account when defining the scope of ecodesign requirements for relevant upstream products, as part of horizontal or other measures.

*Kind regards,*



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**Other MPTB/CSS Space Focus Group participants are the European Defence Agency (EDA) as observer and REACHLaw, a consultancy supporting the group on REACH and other chemical regulations.**

**PREVIOUS CONTRIBUTIONS TO THE SUSTAINABLE PRODUCTS INITIATIVE AND ESR**

Table 2 Previous Space Sector contributions to the Sustainable Products Initiative and ESR

<b>Contribution name</b>	<b>Reference</b>	<b>Date</b>	<b>Link</b>
<b>EUROPEAN SPACE SECTOR FEEDBACK ON ECODESIGN DG GROW SOLAR PV REGULATORY INITIATIVES</b>	MPTB-ES-PO-0116	12 December 2022	<a href="#">Eurospace website</a> <a href="#">Eurospace news</a> <a href="#">COM ‘Have your say’ website</a>
<b>EUROPEAN SPACE SECTOR FEEDBACK ON THE SUSTAINABLE PRODUCTS INITIATIVE – ESR PROPOSAL OF 30 MARCH 2022</b>	MPTB-ES-PO-0105	20 June 2022	<a href="#">Eurospace website</a> <a href="#">Eurospace news</a> <a href="#">COM ‘Have your say’ website</a>
<b>EUROPEAN SPACE SECTOR CONTRIBUTION TO THE COM SUSTAINABLE PRODUCTS INITIATIVE</b>	MPTB-ES-PO-0078	9 June 2021	<a href="#">Eurospace website</a> <a href="#">Eurospace news</a> <a href="#">COM ‘Have your say’ website</a>

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