

Statement of the expanded polystyrene industry on the Single-use Plastics Directive

July 2021

By 3 July 2021, EU Member States were supposed to bring into force national rules to comply with EU Directive 2019/904 on the reduction of the impact of certain plastic products on the environment, better known as the **Single-use Plastics Directive** (SUPD).

The expanded polystyrene (**EPS**) **industry supports the objectives** of the SUPD to prevent and reduce the impacts on the environment, including the aquatic environment, as well as to promote the transition to a circular economy. Ensuring the continued sustainable use of EPS is part of [our mission](#). The environmental advantages of EPS have been demonstrated in multiple [comparative life-cycle analyses](#) (LCAs). Any material that is not responsibly discarded but littered is generally lost to the circular economy, whereas we want to **further increase EPS recycling**. EUMEPS, the association representing the European EPS industry as a whole, was one of the first to submit a recycling [pledge](#) to the European Commission in 2018.

However, we regret that **under false pretences, the SUPD has singled-out EPS** by providing for the restriction of what it calls SUP food and beverage containers and beverage cups “made of expanded polystyrene”. While it does not actually affect the vast majority of EPS products directly, this discriminatory treatment has cast unjustified doubts on a **highly resource-efficient and 100% recyclable** material.

We call EPS ‘**engineered air**’, as it is a foam plastic produced from polystyrene (PS) and **98% air**. Its versatility, reliability and sustainability have made it **one of the most common of many plastic foam materials**. It is possible to [tell EPS apart from other plastics](#), due to its usually bright white colour and structure. When [transposing the SUPD](#), the German government described EPS, in line with [industry guidelines](#) (p. 9), as consisting of particles of the granulate that stick together but usually do not completely fuse with one another. The spherical, foamed granulate is often recognisable in the product (p. 20). Also, [other EU law](#) notes the difference between EPS and other PS foam.

Contrary to widespread confusion, **EPS is not typically used in ‘to go’ packaging** in Europe. In particular, the notorious fast food clamshells, which lawmakers will likely have had in mind, are not made from EPS. Rather, [EPS is used to protect](#) (in-) valuable objects such as fresh food, household appliances, electronics and vaccines, as well as people. It **contributes to** achieving European **climate goals** in an efficient manner, also as a [premier insulation material](#).

The **roots for the discrimination of EPS** in the SUPD, as well as many other broader problems with the Directive, lie in the hastily developed [proposal](#) by the European Commission, which it [presented as a measure against marine litter](#). However, its **approach** to understanding this environmental problem and defining measures to address it were **questionable**. It shifted the burden significantly to European producers and users of (all) plastics (but no other littered material). By contrast, EU law adopted just one year prior to the SUPD states that “[t]he fight against litter should be a shared effort between competent authorities, producers and consumers”, as marine litter is “caused mainly by poor solid waste management practices and infrastructure, littering by citizens and lack of public awareness” (Directive 2018/851, recitals 34-35). The Commission addressed what it has **presented as the top-10 plastic products found in beach litter**, as proxy for environmental impact, in particular the marine environment. However, the composition of beach litter **widely varies** between each of the four regional sea areas in the EU (Seas at Risk, [Single-use plastics and the marine environment](#), 2017, p. 9).

The UK government observed in the [supplementary evidence report](#) to its 25 Year Plan to Improve the Environment that there still is “**incomplete understanding** of current levels, properties, impacts and costs of marine litter in the UK waters” (p. 45). An **uncertainty** that the Commission’s [impact assessment \(IA\)](#) did in fact mention is that around 30% of the plastic in beach litter remains unidentified (IA, Part 1, p. 10). The Commission’s **Regulatory Scrutiny Board (RSB)**, after giving a first, negative opinion, still had “**strong reservations**” in its final [opinion](#) because of “**serious shortcomings**” in the Commission’s justification for the proposal with regard to “key aspects”. Indeed, the creation of the top-10 involved disaggregating product groups with litter item count data and then regrouping back into other groups. Even the Commission’s impact assessment conceded: “[t]he process for apportioning the items affects the final rankings and there is **no completely objective way to do this**” (IA, Part 2, p. 42). The RSB criticised that **harm “is not shown** for each individual item, especially for those that are least frequently found”. Indeed, this is particularly true for food containers, which made the top-10 just ahead of the far less prominent shotgun cartridges, and despite contributing hardly more than a tenth of the beach litter items of the top product category (IA, Part 1, p. 11).

The proposal did not address the economic viability of recycling, although the Commission had identified this as an issue in its [inception impact assessment](#). The RSB also noted that it “does not explain why improving implementation of existing legislation, in particular on waste management is not the way forward.” The proposal also did not reflect that the littering potential for each product differs significantly depending on the concrete circumstances of its use (e.g. the same product can be consumed at home, where it will most likely be properly discarded, or ‘on the go’). The public consultation did not cover the proposed restrictions. The survey mentioned restrictions only for drinks cups and only at sub-EU level (question B.10). The proposal explained that it did in fact *not* propose banning **SUP food containers and beverage cups** but introduced extended producer responsibility (EPR) rules for them, because there are **no readily available suitable and more sustainable** (multi-use or non-plastic) **alternatives** (recital 15).

The **Research Service of the European Parliament** was **also critical** in its [initial appraisal of the IA](#), finding “a number of flaws that reduce its overall quality [as the IA] does not seem to entirely follow the intervention logic [...]. The presentation of the options is rather unbalanced [...]. The IA does not explicitly compare the sub-options in terms of effectiveness, efficiency, coherence and proportionality [...], nor does it check the regulatory options in light of the principles of subsidiarity or proportionality. In addition, the IA does not discuss the impacts on innovation/research and development, or the feasibility for businesses to invest in alternative materials. Furthermore, the IA only briefly touches upon the implications for SMEs. [...] Moreover, the quality of the IA modelling could not be verified, because only a few references are provided [...] and the external supporting studies are not available [...]. The IA does not explain why the open public consultation ran for 8 weeks instead of the 12 weeks required [...]. Finally, the proposal does not include the consumption reduction target for [...] food containers foreseen under the preferred option and contains measures [...] not envisaged in the IA.”

Despite the criticism from the RSB and its own Research Service, the [European Parliament](#) defied the (already skewed) logic of the proposal to at least treat all plastic materials alike to avoid **just substituting one plastic with another**, and addressed EPS specifically. As the Commission had not proposed them, the restrictions of certain EPS products **never** underwent **any impact assessment**, analysis of alternatives or LCA.

The Parliament based [unjustified claims](#) about the prevalence of PS in the marine environment and EPS-specific restrictions on the same beach litter item counts that the Commission had relied upon. However, **beach litter does not accurately reflect overall marine pollution**. [According to the European Environmental Agency \(EEA\)](#) and United Nations Environment Programme (UNEP), only 15% of marine debris floats on the sea surface; another 15% remains in the water column, and 70% rests on the seabed. Due its 98% air content, EPS floats. Thus, it does not contribute to the majority of the marine debris in the water column and on the seabed. Furthermore, *item* counts do not reflect the *mass* of any pollutant in the environment.

Looking holistically beyond beach and marine litter, the Swiss Federal Laboratories for Materials Science and Technology calculated in 2019 how much of the seven most frequently used types of plastic gets into the environment in Switzerland. The [study](#) for the Federal Office for the Environment found that **EPS is the least-leaked plastic**, with a so-called emission factor of 0.025% to 0.049%. Additionally, even the **EU-wide beach litter data** that the EU Institutions have relied upon (IA, [part 2](#), pp. 31 et seq.) **does not specifically identify EPS**. The categories, which the Parliament used, mix (*solid and foamed*) PS with (*all sorts of*) other plastics. In fact, **less than 1%** of all litter items found on EU beaches have been clearly identified as PS (IA, op cit., categories ranking 28 and 53).

After the **Council and Parliament** had concluded their negotiations **under utmost time pressure**, the legal text was revised in another application of the ‘if it don’t fit, use a bigger hammer’ approach. Their [provisional agreement](#) stated that certain EPS products should be restricted “[i]n view of the high prevalence of polystyrene litter in the marine environment and the availability of alternatives” (recital 16). Probably after noting the mismatch between the stated motivation referring to PS and the restrictions to EPS, the word ‘expanded’ was added before adopting the [SUPD](#).

As was to be expected based on ill-conceived legal text, the **implementation of the SUPD** has proven **difficult**. The Commission has delayed multiple of the steps that it has to take in order to make the SUPD effective. This includes guidelines that it was supposed to adopt by July 2020 to explain the very scope of the SUPD, but [published](#) only almost a year later. Unfortunately, the guidelines still do not provide sufficient clarity and address concerns we expressed in a broad coalition with other stakeholders in [January](#) and [June 2021](#). In particular, they do not explain multiple aspects that the Parliament and Council included in the SUPD to define the category SUP food containers, such as a **tendency to become litter and single-serve portions**. [Only eight](#) Member States have transposed the SUPD into their **national law** in time while others have been doing so in **divergent** ways. This jeopardises the effective environmental protection intended by the SUPD, as well as the circular economy in the single European market.

With the **concerning example of the SUPD** in mind, we have [called on the Commission to dedicate appropriate time and resources to the ongoing review of the Packaging and Packaging Waste Directive](#), in a coalition of more than 60 organisations in April 2021. **We will continue to work** together with all EU as well as national institutions and stakeholders **to make the circular economy a reality** and to protect the environment effectively over the full life cycle of products, as well as on **fair and evidence-based rules** that enable this.

About us

- [EUMEPS](#) is the association and voice of European Manufacturers of Expanded Polystyrene. Our members cover the entire EPS value chain from raw material suppliers to EPS converters and recyclers as well as supporting industries including machinery and additive suppliers. Members include individual companies as well as 22 European national EPS associations. This unique representation of the entire value chain ensures that EUMEPS represents both large companies and small- and medium-sized converters and recyclers. Altogether our membership represents more than 1,000 companies, most of them small- and medium-sized enterprises (SMEs), and employs more than 80,000 people.
- [Smart Packaging Europe](#) is an initiative of EUMEPS that brings together big and small companies, reflecting the diversity of the European EPS packaging industry.

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