

Packaging and Packaging Waste Directive revision

The right approach to packaging reuse and waste prevention targets

Fibre Packaging Europe supports the EU's Green Deal ambitions and welcomes the upcoming revision of the Packaging and Packaging Waste Directive (PPWD) as a crucial opportunity to drive the EU circular economy. The PPWD should take an effective, science-based approach to ensure that all packaging is recyclable or reusable by 2030. This should be done by setting ambitious, realistic and clear goals, while safeguarding the functioning and competitiveness of the Single Market and enabling industry to innovate, plan and invest with confidence.

Paper and board packaging, generally referred to as fibre-based packaging, is a sustainable product. It is sourced from renewable wood fibre and is the most recycled packaging in Europe compared to all other packaging materials.¹ It is therefore perfectly positioned to continue playing a vital role in the EU's green transition to a circular economy.

Fibre Packaging Europe recommends that policymakers take into account the following in the revision of the PPWD:

- 1. Waste prevention targets should focus on packaging that cannot be reused or recycled**
- 2. Reuse should only be considered where technically, economically, and environmentally beneficial**
- 3. The approach to overpackaging should consider product safety and waste prevention efforts**

1. Waste prevention targets should focus on packaging that cannot be reused or recycled

Acknowledging the EU's objective to reduce waste, we believe that waste prevention targets should focus on the waste that cannot be reused or recycled. Packaging exists for a reason: to protect and preserve goods throughout the value chain, subsequently preventing waste, including food waste.

Circular packaging should be designed to achieve an optimal fit for the product it contains, also referred to as "fit for purpose" packaging. This should be a mandatory requirement for all packaging in the essential requirements of the PPWD. Ensuring that packaging is fit for purpose prevents waste.

We could support the possibility for Member States to implement a wide spectrum of measures to prevent packaging waste, including top-down packaging waste reduction targets of e.g. 5%. However it is crucial that Member States must be left free to reach these targets via a range of relevant waste prevention measures, which could include reuse as well as a wide range of other measures (e.g. promoting packaging ecodesign and education campaigns). This will ultimately allow for more flexibility to establish efficient measures tailored to the specific needs of each individual country, on condition that any targets should prevent market fragmentation in the implementation of the essential requirements. These should be harmonised and uniformly implemented across the EU.

2. Reuse should only be considered where technically, economically, and environmentally beneficial

Reuse can be seen as a measure to prevent packaging waste, in order to achieve a climate-neutral, circular economy. However, this measure presents technical and logistical challenges for the economy and is not by default the most beneficial environmental option for packaging. Single-use solutions, such as fibre-based packaging sourced from renewable materials and recycled at end-of-life, are often more environmentally friendly than reusable alternatives.

Where appropriate, top-down reuse measures should be very clearly defined and the focus should be on achievable goals for packaging that can be reused in practice. These top-down measures should also be tailor-made and based on a sound scientific evaluation of the life cycle impact of packaging, the packaged product and its system, accompanied by the evaluation of the economic and technological implications associated with such solutions.

¹ [Recycling rate of packaging waste by type of packaging, EU27, Eurostat \(2019\)](#)

Reusable packaging systems often have increased environmental and economic impacts due to for instance the extra logistics involved, sanitisation and additional costs for food service systems.² Food safety needs must be assessed due to hygiene and safety requirements associated with the reuse of packaging.³ Many studies have also shown that transportation distance plays a crucial role in the environmental impact of many sectors,⁴ especially when transportation is intercontinental.⁵

Studies of transportation distances have found that single-use packaging has a significantly lower impact compared to reusable alternatives.⁶ A recent example study found that the carbon footprint of cardboard boxes outperforms that of reusable plastic boxes when moving tomatoes internationally.⁷ Similar results were demonstrated by an independent peer-reviewed study assessing B2B transport of fresh produce in the EU.⁸ Another study assessing the environmental performance of beverage cartons shows that their high packaging efficiency also leads to a higher transport efficiency, resulting in lower emissions due to transporting goods. A truck can be loaded with 25% to 41% more milk using beverage cartons compared to glass bottles.⁹

For consumer packaging, adherence to proper reuse and refill activities is essential considering that the actual reuse rate of reusable packaging solutions depends on its appearance and quality. For example, reusable plastic cups should be used at least 20 times to minimise climate impacts,¹⁰ and in the case of reusable cups made of steel, these need to be used at least 130 times to cause fewer CO₂ emissions than a take-away paper cup. However, achieving these levels of reuse is often unrealistic and the improved climate impact that reuse supposedly guarantees over that of single-use may be exaggerated.

Fibre-based packaging has a high recycling rate (82%)¹¹ and produces high quality recycled products.¹² Therefore, it would not prove productive to impose restrictive and unrealistic reuse targets on packaging made of paper and board as this will likely have a negative or very limited environmental impact.

3. The approach to overpackaging should consider product safety and waste prevention efforts

We support the Commission's intention to prevent overpackaging in line with the PPWD objectives. It should also be noted that the product/brand owner has the final decision on the packaging used. Therefore, the foreseen measures should ensure shared responsibility along the value chain.

Furthermore, both overpackaging and underpackaging must be prevented as they both could lead to detrimental environmental impacts through damaged products and additional waste streams. Circular packaging designed to be "fit for purpose" eliminates both overpackaging and underpackaging.¹³ It also allows packaging to remain fully functional depending on the needs to the packaged product, ultimately minimising void space and helping to prevent product damage and waste.

² RBB Economics, The economic effects of Decree no.2020-1724 (2021): Switching to reusable packaging leads to a 10% price increase for consumers and a 8.4% decrease in sales volume for restaurants

³ López-Gálvez, F.; Rasines, L.; Conesa, E.; Gómez, P.A.; Artés-Hernández, F.; Aguayo, E. Reusable Plastic Crates (RPCs) for Fresh Produce (Case Study on Cauliflowers): Sustainable Packaging but Potential *Salmonella* Survival and Risk of Cross-Contamination. *Foods* 2021, *10*, 1254.

⁴ Raugei, M., Fullana-i-Palmer, P., Puig, R., & Torres, A. (2009). A comparative life cycle assessment of single-use fibre drums versus reusable steel drums. *Packaging Technology and Science*, 22(8), 443–450.

⁵ Bernstad Saraiva, A., Pacheco, E. B. A. V., Gomes, G. M., Visconte, L. L. Y., Bernardo, C. A., Simões, C. L., & Soares, A. G. (2016). Comparative lifecycle assessment of mango packaging made from a polyethylene/natural fibre-composite and from cardboard material. *Journal of Cleaner Production*.

⁶ Abejón, R., Bala, A., Vázquez-Rowe, I., Aldaco, R., & Fullana-i-Palmer, P. (2020). When plastic packaging should be preferred: LCA of packages for fruit and vegetable distribution in the Spanish peninsular market. *Resources, Conservation and Recycling*, 155(December 2019), 104666; Accorsi, R., Cascini, A., Cholette, S., Manzini, R., & Mora, C. (2014). Economic and environmental assessment of reusable plastic containers: A food catering supply chain case study. *International Journal of Production Economics*, 152, 88–101; Koskela, S., Dahlbo, H., Judl, J., Korhonen, M. R., & Niininen, M. (2014). Reusable plastic crate or recyclable cardboard box? A comparison of two delivery systems. *Journal of Cleaner Production*, 69, 83–90.

⁷ Science for Environment Policy, Issue 569, 2021, European Commission DG ENV, edited by SCU, University of the West of England, Bristol

⁸ <https://www.fefco.org/>

⁹ Supporting evidence - Environmental performance of beverage cartons, Circular Analytics, 2020, p. 19

¹⁰ Taking a closer look at paper cups for coffee (LCA study), Huhtamaki

¹¹ Recycling rate of packaging waste by type of packaging, EU27, Eurostat (2019)

¹² Paper-Based Packaging Recyclability Guidelines (Cepi, CITPA, ACE, FEFCO, 2019); Circularity by Design Guideline for Fibre-Based Packaging (4evergreen.eu, 2022)

¹³ Fit for purpose packaging is circular packaging which is designed, produced and used in an optimised way without compromising its functionality or product safety, while using a minimum amount of resources and having minimum impact on the environment during the production, use and end-of-life phase (reuse and recycling).

Fibre Packaging Europe

European coalition for renewable, circular and sustainable paper and board packaging.

About Fibre Packaging Europe

Fibre Packaging Europe is an informal coalition of eight trade associations representing industries involved in forestry, pulp, paper, board and carton production and recycling from across Europe. Our joint mission is to provide renewable, circular and sustainable fibre-based packaging solutions to European citizens to achieve the European Green Deal objectives. Together, we represent around 1500 companies and over 2200 manufacturing plants, we employ more than 365.000 people across Europe and our annual turnover is around EUR 120 billion.

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