

Sustainable packaging solutions: fit for purpose

Fibre Packaging Europe supports the ongoing revision of the Packaging and Packaging Waste Directive that aims to shape the future role of packaging within the EU's circular economy. To contribute to the EU objectives, circular packaging should be designed to achieve an optimal fit for the product it contains, protects and presents.

Suppliers of fibre-based packaging have cooperated with the value chain for many years to provide fit for purpose packaging. This approach closely follows the ISO 18602:2013(E) concept for 'optimum pack design'. This ensures that all packaging is designed with the goal to optimally fit the product minimising void space, thus preventing both overpackaging and underpackaging.

We therefore ask for a fit for purpose approach to be introduced among the Essential Requirements in the revision of the PPWD.

The following definition could be suggested: *'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).'*

The fit for purpose approach and its inclusion in the PPWD will help ensure that packaging becomes circular and sustainable in the most effective way due to the following:

1. Fit for purpose packaging prevents overpackaging
2. Fit for purpose packaging prevents waste
3. Fit for purpose packaging increases the cooperation in the value chain

1. Fit for purpose packaging prevents overpackaging

We support the Commission's intention to prevent overpackaging in line with the objectives of the PPWD. The concept of fit for purpose packaging is to prevent both over- and underpackaging. Additionally, fit for purpose packaging remains fully functional depending on the needs of the packaged product.

Fit for purpose packaging also takes a step further in terms of contributing to minimising waste generation. Overpackaging, underpackaging or ill-fitting packaging can result in product breakage and additional waste streams, while properly developed packaging can reduce the environmental impact along the supply chain.¹

Applying this concept would also avoid subjective weight and volume limits from being placed on packaging. Instead, the packaging's functionality should serve as the main criteria; that is to say, the smallest or lightest packaging is not necessarily the most eco-friendly.

2. Fit for purpose packaging prevents waste

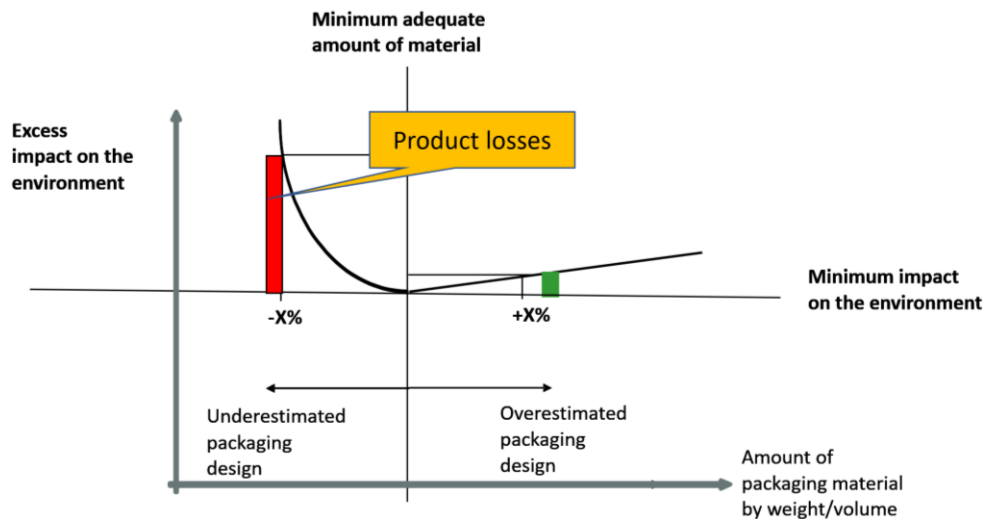
The role of packaging is to protect and preserve goods throughout the logistics chain, subsequently preventing waste. Designing innovative packaging solutions that fit products well and prevent harm should therefore be a key focus of the PPWD revision. In fact, based on the waste hierarchy, as outlined in the Waste

¹ [Avoiding food becoming waste in households – The role of packaging in consumers' practices across different food categories](#)

Framework Directive, the prevention of waste is the ideal solution for achieving an overall reduction. ISO 18602-2013 echoes this in saying that the 'role of packaging is prevention of damage to or loss of goods'.²

The carbon footprint of a product itself is magnitudes higher than the carbon footprint of its packaging. Packaging generally represents up to 3.5% of the total carbon footprint of final food or beverage products.³ If the reduction of packaging leads to product damage or breakage, the negative effect on the environment and the economy multiplies as shown in the graph below.

Removing or reducing food packaging could lead to unintended increases in food waste, which has a much higher environmental impact than the recycling of fibre-based packaging. This was also demonstrated by research conducted by the University of Bologna, which revealed that corrugated packaging can extend the shelf life of fresh food products by up to three days compared to reusable plastic crates and can significantly reduce contamination from pathogenic and spoilage microorganisms.⁴



3. Fit for purpose packaging increases the cooperation in the value chain

Fit for purpose packaging requires shared responsibility and a good collaboration in the supply chain. As mentioned above, suppliers of fibre-based packaging have cooperated with the value chain for many years to provide fit for purpose packaging. The final decision on the packaging lies with the owner of the goods/food. The packaging manufacturer can advise on new technical solutions to improve the quality and recyclability of the used material alongside the best packaging solution for the product. The cooperation between brands and packaging manufacturers, within the framework of 4evergreen, has for instance resulted in the development of jointly accepted Circularity by Design Guidelines for Fibre-Based Packaging.⁵

Fit-for-purpose packaging should be considered an ally in the green transition given its capacity to prevent overpackaging and underpackaging, and protect goods at transport and retail stages. Fibre Packaging Europe encourages the Commission to take this into account when reviewing the Essential Requirements of the Packaging and Packaging Waste Directive.

About Fibre Packaging Europe

Fibre Packaging Europe is an informal coalition of six 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.

For more information, please contact papercoalition@apcoworldwide.com.

² [ISO 18602:2013: Packaging and the environment – Optimisation of the packaging system \(ISO.org\)](#)

³ [Guideline_stopwastesavefood_en_220520.pdf \(denkstatt.eu\)](#)

⁴ [Siroti et al., \(2017\) Survival of Spoilage and Pathogenic Microorganisms on Cardboard and Plastic Packaging. Front. Microbiol. 8:2606.](#)

⁵ [Circularity by Design Guideline for Fibre-Based Packaging \(4evergreen.eu, 2022\)](#)