

Prevention and reuse - the *only* solution to record levels of packaging waste

Levels of packaging waste in Europe are at an all-time high. Over the last decade, its growth outpaced the economy rising faster than the volume of traded goods. The latest [Eurostat data](#) on packaging waste, published in October 2023, reaffirms this upward trajectory with a new record of 188.7 kg per capita in 2021 - a 6% increase in waste generation in only one year. The same data also reveals that recycling rates have stagnated since 2010. The packaging sector is now responsible for approximately 59 million tonnes in CO₂eq, more than the annual emissions of Hungary. Packaging is also a major driver of virgin resources exploitation – using 40% of plastic and 50% of paper in Europe.

Without action, the EU would see a further [19% increase in packaging waste by 2030](#). This reality is incompatible with Europe's ambitions for climate neutrality and resource efficiency.

The Commission proposal for a packaging and packaging waste regulation (PPWR) responds directly to this challenge with the goals to:

- Prevent the generation of unnecessary packaging waste: reduce it in quantity, restrict overpackaging and promote reusable packaging solutions;
- Make all packaging on the EU market recyclable by 2030;
- Reduce the need for primary natural resource use and create a well-functioning market for secondary raw materials (notably plastics).

In this regard, the PPWR offers a necessary pathway to reverse the trend of an ever more material and carbon intensive packaging sector, while creating real economic opportunities for truly circular businesses.

In light of the latest official [data](#) cited above, opposition to a more pragmatic and systemic approach to reducing Europe's dependency on single-use packaging looks increasingly difficult to defend. However, the PPWR proposal has been one of the most intensely lobbied files of this political term. Policy makers across institutions have complained about an endless influx of requests, untransparent studies and increasingly [aggressive lobbying strategies](#). The attempts to undermine key waste prevention measures of the regulation were, regrettably, not accompanied by any credible alternatives to tackle the growth of packaging waste.

As a result of this intense negative lobbying, the Parliament's responsible committees [diluted](#) the ambition of the proposal introducing several exemptions which undermine the Regulation's chances to stop the uncontrolled growth of packaging waste.

In November, all members of the European Parliament will choose either to provide a credible solution to the packaging waste crisis by supporting reuse targets (art. 26) and tackling unnecessary packaging (art.22 & Annex V), or they will surrender to the aggressive lobbying of the single-use packaging industry.



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RETHINK PLASTIC



FAQ to sort through the trash talk

1 Was the Commission proposal for a packaging regulation too ambitious?

The reduction of packaging waste proposed by the Commission is very modest when compared with the more than 20% increase in packaging volumes over the last decade. A 5% reduction of packaging waste by 2030 should also be put in the context of the European climate target to reduce emissions by 55% by 2030 – which major [industrial actors in the packaging sector](#) are not on track to meet.

The proposal was not disproportionate or excessive: even if all the waste prevention and reuse measures contained in the draft regulation were to be fully applied, this would still be [insufficient](#) to achieve a 5% reduction of packaging waste generation by 2030. Hence, the regulation clarifies that Member States will have to take additional measures to meet their waste prevention targets. The position of the Parliament ENVI Committee further [widened this gap](#) by introducing several loopholes and exemptions on reuse targets and restrictions for unnecessary packaging, thus undermining the EU chances to stop the growth of packaging waste in a harmonised way.

2 Do we really need to focus on waste prevention? Can't recycling be enough?

Recycling - on its own - will not reduce waste levels and [is insufficient](#) to reduce Europe's [material](#) and carbon footprints at the speed and scale needed to achieve our climate and environmental goals. Also simply substituting one single-use material for another is [not a genuine solution](#) to the waste crisis.

The rate of packaging waste recycling in the EU has essentially [stagnated](#) since 2010. This is despite many industry initiatives and policies focused on recycling. In other words, any improvements in recycling have struggled to keep up with growing levels of waste. The EU must resist the temptation to continue business as usual focusing only on marginal improvements in waste management as this approach has already proven to be insufficient. Instead, Europe must develop a comprehensive approach to circular packaging which, alongside ensuring all packaging is recyclable, prevents the generation of unnecessary waste and scales up reuse.

3 Why don't we just shift from plastics to single-use paper, it's green, renewable, recyclable?

Some of the largest polluters in the packaging value chain, led by single-use paper producers and McDonald's, conducted a massive lobbying campaign to greenwash throwaway paper as a sustainable alternative to single-use plastics and reuse. New [research](#) proved this is a false solution:

- Paper packaging is already the [largest packaging waste stream](#) in Europe. With 34 million tonnes of waste generated in 2021, paper alone makes up for more trash than the two next largest waste material streams, plastic and glass, combined.
- Paper packaging used in the HORECA sector is particularly problematic as it is usually combined with plastic or chemical coatings, it rarely includes recycled content or is successfully recycled into new packaging.

- The raw materials for paper packaging are increasingly imported from developing countries, contributing to global deforestation and water stress. On average, [three billion trees](#) are cut each year for global paper packaging.

To genuinely prevent waste, the EU must adopt effective rules to address the uncontrolled growth of single-use packaging, no matter the material it is made of.

4 What is the problem with the current rules of the Packaging & Packaging Waste Directive?

One of the major limitations of the current Directive, and a primary motivation for its revision, was that it was too vague and unenforceable. As a result, it failed to prevent even the worst cases of overpackaging, e.g. apples in shrink film and polystyrene trays or excessive empty space in online deliveries. There is now a risk of repeating the same mistake by introducing unnecessary derogations, exemptions and loopholes leading to regulatory uncertainty and undermining the regulation's practical effectiveness in the Single Market.

The original PPWR proposal already contained many unnecessary derogations and exemptions. Instead of closing these gaps, this situation was [worsened](#) by the position adopted by the Environment Committee which widened loopholes on key waste prevention measures. The sweeping and broadly defined derogations introduced, e.g. on art. 26 on reuse (2040 targets not binding anymore) and art. 22 & Annex V on unnecessary packaging (broad unjustified exemption for paper) undermine their practical implementation and enforcement.

Instead of a patchwork of loopholes to meet lobbying requests, the European Parliament must deliver a harmonised set of rules that can be practically implemented and enforced to reduce waste, restrict unnecessary packaging and promote reusable solutions.

5 What has been the impact of the unprecedented lobbying from the throw-away packaging industry?

The packaging regulation has been one of [the most intensely lobbied files](#) of this political term. Policy makers faced an endless influx of [untransparent studies](#) and increasingly aggressive lobbying strategies. This is confirmed by the analysis from [InfluenceMap](#) showing significant opposition from industry groups which is putting the EU's efforts to address packaging waste at risk.

Since the publication of the proposal, several misleading and unsubstantiated lobbying arguments have managed to divert attention. This included overinflated fears about the impacts on hygiene, food waste and existing recycling infrastructures as well as [untransparent studies](#) claiming that single-use packaging would have a better environmental performance than reuse systems.

Despite having been widely debunked by [NGOs](#), [scientists](#) and the [Commission](#), these false arguments have successfully influenced the [positions of the Parliament Industry and Agriculture committees](#). The pushback from laggards in the packaging industry, has not only distracted from the useful discussions on how to improve the proposal, but it also succeeded to water it down. While all available independent evidence supports more action on waste prevention, the compromises voted in ENVI Committee show an overall reduction on the level of ambition. As things stand, the European Parliament is poised to significantly lower the ambition of this regulation compared to the original proposal, the opposite of the constructive role that MEPs have played in other Green Deal files.

In line with the waste hierarchy, extensive independent [scientific literature](#), illustrates the potential of reusable packaging systems compared to single use. [Well-designed reuse systems](#) can reduce waste at source, cut energy, emissions, resource and water use, and create jobs and business opportunities. Evidently these systems must be well-managed and meet a minimum number of rotations through efficient collection, washing and redistribution to maximise their environmental potential.

Decision-makers should base their decisions on peer-reviewed and independent evidence rather than [on biased studies](#) sponsored by vested interests in order to sow doubt and maintain the status quo. Regrettably, life cycle assessments commissioned by single use packaging producers have misled policy makers. These studies [have been found](#) to exhibit a clear bias using cherry-picked scenarios, a worrying lack of transparency and unfavorable assumptions against reuse (return rates, washing and dedicated return journeys). 58 experts in life cycle assessment have [urged caution](#) around using packaging industry-funded LCAs to make general conclusions in the sector, pointing to their lack of transparency or flawed assumptions.

In the meantime, new evidence has emerged which bolsters the Commission's proposals on waste prevention and reuse, in particular for the food and beverages sector. [Preliminary results](#) from the Joint Research Centre, show predominantly favourable results for reuse systems compared to their single use packaging equivalents.

Independent research confirming the benefits of reuse systems (non-exhaustive)

- [Abejón et al \(2020\)](#) When plastic packaging should be preferred: life cycle analysis of packages for fruit and vegetable distribution in the Spanish peninsular market. Resources Conservation and Recycling.
- [Accorsi et al \(2014\)](#) Economic and environmental assessment of reusable plastic containers: a food catering supply chain case study. Int J Prod Econ. 152.
- [Albrecht et al \(2013\)](#) An extended life cycle analysis of packaging systems for fruit and vegetable transport in Europe. Int J Life Cycle Assess. 18(8)
- [Arunan et al \(2021\)](#) Greenhouse gas emissions associated with food packaging for online food delivery services in Australia. Resources, Conservation and Recycling, 168.
- [Changwichan and Gheewala \(2020\)](#) Choice of materials for takeaway beverage cups towards a circular economy. Sustain Prod Consum. 2020; 22.
- [Coelho et al \(2020\)](#) Sustainability of reusable packaging—Current situation and trends. Resources, Conservation and Recycling 6.
- [Ferrara and De Feo \(2020\)](#) Comparative LCA of alternative systems for wine packaging in Italy, Journal of Cleaner Production, 259.
- [Fetner and Miller \(2021\)](#) Environmental payback periods of reusable alternatives to single-use plastic kitchenware products. The. Int J Life Cycle Assess, 26(8).
- [Foteinis \(2020\)](#) How small daily choices play a huge role in climate change: the disposable paper cup environmental bane. J Clean Prod. 255.
- [Gallego-Schmid et al \(2019\)](#) Environmental impacts of takeaway food containers. J Clean Production, 211
- [Garrido and Castillo \(2007\)](#) Environmental evaluation of single-use and reusable cups," Int. J. Life Cycle Assess, 12.
- [Genovesi et al \(2022\)](#) Comparative life cycle analysis of disposable and reusable tableware: the role of bioplastics. Cleaner Eng Technol, 6
- [Hiitt et al \(2023\)](#) Parametric life cycle assessment modelling of reusable and single-use restaurant food container systems. Resources, Conservation and Recycling 190.
- [Kleinhückelkotten et al \(2021\)](#) Reusables in the take-away food sector.
- [McPherson et al \(2019\)](#) The impact on life cycle carbon footprint of converting from disposable to reusable sharps containers in a large US hospital geographically distant from manufacturing and processing facilities. PeerJ, 7.
- [Molina-Besch \(2019\)](#) The environmental impact of packaging in food supply chains—does life cycle assessment of food provide the full picture? The international journal for life cycle assessment, 24.
- [Nessi et al \(2014\)](#) Waste prevention in liquid detergent distribution: a comparison based on life cycle assessment, Science Total Environment.
- [Obersteiner et al \(2021\)](#) Carbon footprint reduction potential of waste management strategies in tourism. Environ Dev, 39.
- [Pålsson and Olsson \(2023\)](#) Current state and research directions for disposable versus reusable packaging: A systematic literature review of comparative studies. Packaging Technology and Science, 36(6).
- [Ponstein et al \(2019\)](#) Greenhouse gas emissions and mitigation options for German wine production. Journal of Cleaner Production, 212.
- [Postacchini et al \(2018\)](#) Reuse of honey jars for healthier bees: Developing a sustainable honey jars supply chain through the use of LCA, Journal of Cleaner Production, 177.
- [Scharpenberg et al \(2021\)](#) Analyzing the packaging strategy of packaging-free supermarkets. Journal of Cleaner Production, 292.
- [Schmidt et al \(2022\)](#) Reusable glass for food - ecologically viable or not? FactSheet aus dem Forschungsprojekt Innoredux.
- [Tua et al \(2019\)](#) Life Cycle Assessment of Reusable Plastic Crates (RPCs). Resources, 8(2).
- [Tua et al \(2020\)](#) Reusing glass bottles in Italy: A life cycle assessment evaluation. Procedia CIRP, 90.
- [Umwelt Bundesampt \(2022\)](#) Promoting reusable packaging systems to reduce packaging consumption - possible measures to set up, scale up and optimize reuse systems (German)
- [Umwelt Bundesampt \(2023\)](#) Prevention of packaging waste. Factsheet on the EU packaging Regulation.
- [UN Environment \(2022\)](#) Single-use supermarket food packaging and its alternatives. Recommendations from Life Cycled Assessments.
- [Woods and Bakshi \(2014\)](#) Reusable vs. disposable cups revisited: guidance in life cycle comparisons addressing scenario, model, and parameter uncertainties for the US consumer. Int J Life Cycle Assess. 2014; 19(4).
- [World Economic Forum \(2021\)](#) Future of Reusable Consumption Models. Insight Report.
- [Zimmermann and Bliklen \(2020\)](#) Single-use vs. reusable packaging in e-commerce: comparing carbon footprints and identifying break-even points.

7 What about the socio-economic impacts of the regulation?

The measures included in the PPWR are [expected](#) to create 29,000 new green jobs and generate savings for consumers of around 100EUR per year by 2030. New rules ensuring all packaging is recyclable will increase the value of waste and thus improve the viability of the recycling sector. Recycled content targets will also create certainty for investors. In parallel, scaling up reusable packaging will depend on local job creation and new businesses throughout Europe to manage reverse logistics and pooling infrastructure.

In contrast, although single-use packaging production (for example for take-away) experienced rapid growth in recent years, this has rarely resulted in job creation due to high levels of automation and consolidation in packaging manufacturing. Growing material prices ([up 23% in two years](#)) will also make reuse increasingly economic. Furthermore, market pressures have seen a growing share of raw materials (such as paper pulp from Brazil) or finished single-use packaging (such as finished packaging from China) being imported from outside the EU. Banning the worst cases of deceptive over-packaging practices, such as false bottoms or double walls, will also prevent citizens from being misled by unfair practices.

8 Is reusable packaging unhygienic? Is all packaging safe?

It's important that all packaging is clean and hygienic: this is [not dependent on whether the packaging is single use or reusable](#). Safe reusable food packaging systems have been operating at scale across Europe without incident for decades. Each time we eat from a ceramic plate in a restaurant we also participate in a reuse system. In the [case of refill](#) - where citizens bring their own packaging - the proposal also allows companies to reject dirty packaging and the ENVI report removes their liability.

Missing from this debate, however, are concerns around chemical safety of packaging. Unfortunately, toxic substances are still [widely used](#) in many types of food packaging, which is a significant source of direct exposure of the EU population to harmful substances. The ENVI report rightfully restricts two of the most problematic chemicals PFAS and BPA and provides the possibility to further de-toxify packaging where it poses a considerable risk to human health.

9 Does single-use packaging prevent food waste?

Food waste and packaging waste have grown [simultaneously](#) in Europe. On this issue, it cannot be argued that single-use packaging has helped to reduce food waste levels in a meaningful way. Following an [extensive meta-analysis of 33 life cycle assessment studies](#), UN Environment also concluded that shelf-life extending packaging should be reserved for the foods with the highest environmental impact (such as meat and dairy products), while products such as fruit and vegetables could mostly be sold without packaging. Many types of packaging were also shown to increase food waste, such as [multipacks which encourage over purchasing](#) (such as nets of citrus fruits or bulb vegetables like onions).

In this way, the Commission's proposal follows the evidence, and it already provides ample flexibility to guarantee products' protection, e.g. excluding restrictions for packaging with a "demonstrated need" to prevent food waste (such as protection for fragile berries).

10 Is it true that reuse will undermine existing investments in recycling?

The business case for recyclers is not only dependent on the total amounts of packaging waste generated, but - more importantly - on its recyclability, and on the [quality and demand](#) for recycled material. The [early warning reports](#) on the 2025 packaging recycling targets reveal that recycling infrastructure is, in many areas, struggling to keep up both with the volumes of waste, difficult to recycle designs and materials, and low-quality sorting. Similarly in a [response to concerns from the Italian Parliament](#), the Commission explained: “the available infrastructure including in Italy, are not going to be sufficient to treat all packaging waste”.

Though the new regulation aims at reducing the total amount of waste, it also has the objective to make all packaging recyclable in an economically viable way by 2030. This increase in recyclability of waste will offset the reduction in waste generation by rewarding recyclers with growing volumes of quality materials. In this way, waste prevention measures, including reuse, do not need to undermine investments in recycling infrastructure. Furthermore, other measures such as deposit-return systems for single-use and reusable packaging, as well as recycled content targets will all improve the business case for recyclers.

11 Who actually wants reuse? Is it just an NGO dream?

Establishing re-use systems at scale across Europe is not a utopian idea, but a transition that is already underway. Reuse now needs fundamental policy support to thrive. Several Member States - including France, Germany, Portugal, the Netherlands and Luxembourg - have already implemented policies in support of reuse, including reusable packaging targets and restrictions on overpackaging. At the same time, across Europe a multitude of dynamic and disruptive businesses are [already operating](#) reusable packaging systems at local, regional and national level. [Local authorities](#) also support the transition to reusable packaging, as this will reduce public waste management costs which are driven by littering and the uncontrolled growth of single-use packaging waste.

Without harmonised policy intervention at EU level, however, reuse systems will not reach their optimum scale and performance and European businesses will not face a level playing field within the Single Market. This is why a rapidly growing [coalition of businesses, cities, and civil society organisations](#) is now calling for ambitious reuse targets at the EU level without delays. Also, [more than 100,000 citizens, organisations, businesses and cities](#) had already called for reuse to become the norm at the beginning of the regulatory process.

The business case of reusable packaging systems is [increasingly evident](#) and provides an unmissable opportunity for Europe's economy. Instead of pouring precious resources into short-lived throwaway items, efficient reuse systems will enable businesses and consumers to reap the utility offered by packaging, while preserving value over time. For this to happen, it will be crucial to deliver clear and ambitious reuse targets for 2030 and 2040 to provide businesses the confidence to invest and innovate.

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