

## FEFCO feedback on the European Commission's upcoming review of the Packaging and Packaging Waste Regulation

FEFCO acknowledges the European Commission's proposal for the Packaging and Packaging Waste Regulation. We support maintain the internal market legal basis and introducing harmonised labelling requirements for packaging across EU. Additionally, FEFCO welcomes the packaging minimisation measures and proposed empty space ratio as they will help to reduce packaging waste. The industry prides itself on offering fit for purpose packaging and has worked with manufacturers to ensure that corrugated cardboard packaging is optimised to its fullest extent while still protecting products.

However, FEFCO also has concerns regarding several of the proposal's key measures, including the reuse targets (Article 26) and the market restrictions on certain packaging types (Article 22, Annex V). Please see FEFCO's [position paper](#) further elaborating on our main concerns.

The Regulation should aim to make packaging more circular in a holistic way without giving certain materials a disproportionate market advantage. Material neutrality would be better maintained if the legislation were to consider recycling and reuse as equally viable options for packaging circularity.

Based on our reading of the Impact Assessment (IA) for the PPWR, FEFCO does not feel that sufficient evidence or transparency has been provided to justify some of the proposed targets; for example, there is a concerning lack of consideration for certain elements in the assessment of reuse targets, including food safety, hygiene and the substitution effect between materials. We therefore would like to provide specific feedback on elements of the IA that are misleading and inconsistent.

### Feedback on the Impact Assessment of the PPWR

- **IA Part 1, Page 3: Misleading wording regarding use of virgin material**

*"...there are environmental concerns: packaging is a key user of virgin materials (40% of plastics and 50% of paper use in the EU is for packaging) and packaging represents 36% of municipal solid waste."*

**FEFCO comment:** The wording of the statement above implies that paper packaging is made from 50% virgin material. This is incorrect as paper packaging currently has an average recycled content of 75%, meaning the average virgin input is only 25%. In the case of corrugated board, the average recycled content is 89% with a virgin input of about 11%. This should be clarified in the IA and the text of the Regulation.

- **IA Part 1, Page 9: Incorrect framing of paper/board**

*"...In e-commerce, over-packaging is even more evident...Moreover, light-weighting of packaging has been accompanied by a shift to materials with a worse environmental footprint, particularly from metal and glass to plastic and paper/board."*

**FEFCO comment:** The assumption that metal and glass have a better environmental footprint than paper and board is misleading, especially given the mention of e-commerce right before. Glass and metal cannot be used for many packaging applications, namely e-commerce packaging. Paper and board packaging is highly recyclable and has a high recycling rate and recycled content, the same of which cannot be said for plastic. Grouping paper and board in with plastic as a material with a 'worse environmental footprint' is therefore misleading.

- **IA Part 1, Page 12: Misleading assumption that economies of scale are not possible with current waste management systems**

*“Moreover, due to the scattered sorting and recycling markets, there is limited potential for economies of scale. In the absence of a clear legal framework incentivising circularity of packaging, there is also an investment risk for the recycling industry. The industry is cautious to invest in new technologies and unable to achieve economies of scale for innovative activities.”*

**FEFCO comment:** Paper & board is already recycled at scale across the EU due to its efficient collection, sorting and existing recycling infrastructure. According to Eurostat, paper & board has the highest recycling rate among materials at 82% (2019). An efficient separate collection system is a prerequisite for recycling and will help boost investments in bettering recycling infrastructures.

- **IA Part 1, Page 12: Acknowledgement that waste management and reuse systems are not always cost effective**

*“...closed pool systems, where the reusable packaging has to go back to the initial packer, might be less environmentally beneficial than single use packaging, if the transport distance is very big, or be a risk for food hygiene.”*

**FEFCO comments:** The IA clearly states that transport distances and hygiene issues can result in reuse systems not being environmentally sound compared to single-use options. These concerns are not adequately addressed when the reuse targets are later assessed, therefore the benefits of the final targets (for example, the targets for reusable transport packaging in Article 26.12 and 26.13 which could apply to food contact products) were not sufficiently proven by the IA.

- **IA Part 1, Page 24: Incomplete justification for targets for household appliances**

*“The set of mandatory and strict targets, e.g. 100%, would have as a consequence that businesses which only produce single-use packaging for the market in question... would be thus at risk of closure...high level targets (90%) have been introduced, these do not refer to the producers that they can sell their products only in single use packaging... this selection was discussed with the concerned stakeholders and the specific targets were chosen in cooperation.”*

**FEFCO comment:** Based on the justification provided, it is clear that the impact on single-use packaging was not evaluated for this measure, as a 90% target is enough for closure of business which provides packaging for this market. The existing production lines will not continue to operate if they are only able to serve 10% of the market, resulting in closure. This makes the IA’s reasoning incomplete. Despite what the IA claims, FEFCO was not consulted on this measure although corrugated cardboard provides a significant amount of packaging from this market segment.

- **IA Part 1, Page 25: Justification of proposed reuse targets lacking evidence**

*“The whole set of the reuse measures is designed to set feasible targets and to avoid that the transport of the emptied reusable packaging does not devour the environmental benefits, neither undermine the safety of the packaged products.”*

**FEFCO comment:** This section acknowledges that reuse systems risk having a negative environmental effect and claims the measures have taken this into consideration. However, no evidence is provided for most of the measures. In the case of the transport packaging targets, there is no indication that the return of empty reusable packaging would not increase transport emissions or that reusable options would protect products better than recyclable single-use options.

- **IA Part 2, Page 58: Reuse leads to more GHG emissions**

*“...The reduction in recycling has the opposite impact – resulting in a net gain in GHG emissions, as reduced recycling leads to a decrease in avoided GHG emissions (i.e., recycling activities would have led to negative emissions had they taken place, via the reduced use of raw materials in subsequent manufacturing). Increased deployment of reuse programmes also leads to increased GHG emissions, mainly due to the transportation of reusable packaging. Similarly to the GHG emissions, there are savings at some stages to the packaging lifecycle (manufacturing, residual treatment) while other stages (recycling and reuse) create more impacts. Transport, collection and sorting have not been included.”*

**FEFCO comment:** The IA acknowledges reuse will lead to increased GHG emissions due to transportation. The reuse measures proposed will lead to decreased recycling as the most recycled packaging (paper and board) will decrease production, subsequently risking increased GHG emissions and contradicting the EU’s climate ambitions.

- **IA Part 2, Page 66: Reuse leading to increased plastic packaging**

*“Switches to reuse are modelled using predetermined magnitudes of switches from single-use to multi-use packaging / product types. The model recalculates the degree of substitution needed to increase the number of consumer activities that use multiple-use (rather than single-use) packaging and, therefore, result in a net reduction in waste generation equivalent to the defined targets. As an example, it has been assumed that single-use primary plastic rigid food packaging (e.g. pots, tubs and trays) would switch to multi-use plastic packaging food refill scheme boxes...”*

**FEFCO comment:** The IA correctly assumes that reuse will lead to the substitution of single-use options with reusable plastic options. However, the example used is one of reusable plastic replacing single-use plastic. The IA fails to recognise that reusable plastic will also replace copious amounts of paper packaging, leading to an enormous increase in production of plastic packaging which is not accounted for in the evaluation. The large amount of reusable packaging needed to make the system efficient has also not been considered, as storage and cleaning needs will create infrastructural issues.

- **IA Part 2, Page 72: Unrealistic transport distance assumption**

*“The impacts of transporting reusable items from their point of use to the depot or reconditioning centre were modelled assuming an average distance of 20 km from the point of use to the depot and transport by a 12-tonne truck meeting EURO Class 5 air quality emission standards.”*

**FEFCO comment:** A transport distance of 20km is not realistic; for example, many fruits and vegetables are transported from the Southern-most points of Europe to the Northern-most points, a trip that requires thousands of miles. To meet reuse targets, reusable systems will require significant increase in transport across Europe, distances of hundreds if not thousands of km. A peer-reviewed LCA study<sup>1</sup> found that single-use recyclable corrugated performed better than reusable plastic crates in 10 out of 15 impact categories. In this case, the transport distance was 840km. The added emissions from longer transport distances could result in worsened environmental impacts for reusable options that have not been accounted for in the IA.

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<sup>1</sup> [Comparative Life Cycle Assessment \(LCA\) \(fefco.org\)](https://www.fefco.org/Comparative-Life-Cycle-Assessment-LCA)

- **IA Part 2, Page 116: Acknowledgement of lack of reuse potential for fruits and vegetables**

Table 7 Links and trade offs relating to general objectives

Category	Reduction potential	Of which avoidance and reduced size / weight	Of which reuse potential
Prepared dishes	40%	50%	50%
<b>Fruit and vegetables</b>	40%	Mostly elimination/substitution	<b>Limited potential</b>
Water, Soft Drinks	20%	25%	75%
Savoury groceries	20%	50%	50%

**FEFCO comment:** The chart above shows stakeholder evaluations of the reduction potential of single-use **plastic** packaging in France. It clearly shows that, in the case of fruits and vegetables, there is limited potential for packaging reuse. Instead, the recommendation is to eliminate or substitute packaging. However, the market restriction set in Annex V for single-use packaging for fruits and vegetables under 1.5kg only leaves the option of substitution by reuse or total elimination of packaging. For such products, elimination of packaging may lead to increased food waste and create health risks from elevated contamination.

- **IA Part 2, Page 132: Difficulty in collecting reuse data**

*“Data on packaging reuse across Europe is limited. Very few Member States have official data on reusable packaging or report voluntarily on reusable packaging under the PPWD...Where data is available, there are issues with different data collection methods, different products and varying modes of reuse.”*

**FEFCO comment:** This statement acknowledges the limited reuse data currently available and signals the difficulties from introduces such a system. It is therefore difficult to know what concrete evidence and real-life examples the reuse targets in the IA are based on.

- **IA Part 2, Page 135: Trends in reusable packaging show increase of plastic packaging**

*“Trends in the reuse of transport packaging show relative stability, although there is some variation according to packaging type and some switches to plastic materials. There is an ongoing shift from corrugated single-use packaging towards reusable plastic RTPs (Returnable Transport Packaging), such as pallets and crates for fresh products including eggs, fruit and vegetables, meat and fish. The use of RTPs for meat crates has increased by around 30% to 400 million containers in Europe between 2012 and 2019. Bread crates increased by around 50% to 600 million containers and fruit and vegetable crates increased by 7-8% to around 350 million containers over the same period. This growth has been attributed to the requirement for stable, conveyor-technology compatible standard boxes which are necessary for automated processes.”*

**FEFCO comment:** The IA acknowledges that, for transport packaging, corrugated is being replaced with reusable plastic options; over 1.3 billion plastic containers were produced just for the examples given. It is therefore clear that the reuse targets for transport will result in a significant increase in plastic production, undermining the EU’s intention to decrease plastic use and dependency on fossil resources. Additionally, the final sentence acknowledges that these systems function thanks to standardised boxes, which could lead to excessive void space, overpackaging, more transport trucks and limited innovation.

- **IA Part 2, Page 135: Trends in reusable packaging are not representative**

*“In Austria for instance, approx. 8.5 million RTP are in circulation between suppliers and dealers (excluding pallets/roll containers). The boxes are reused around ten times per year.”*

**FEFCO comment:** The case analysed from Austria indicates that reusable boxes only make about 10 rotations per year. Table 9 estimates that the total number of reusable boxes used in Austria estimated is just over 15 million with a circulation of 128 million, meaning that each box only achieves about 8.5 rotations per year. The study used also claims these boxes have a lifespan of up to 10 years, and an annual ‘shrinkage rate’ of 2-5%. However, it is important to consider that Austria is a small EU country and, therefore, the reuse systems established cannot be compared to the potential breakage and rotation rates of inter-European reuse systems. Therefore, there is a lack of evidence in the IA regarding the environmental benefits of reuse systems on a larger-scale.

- **IA Part 2, Page 149: Reuse example shows limitations**

*“The Euro Pool System (EPS) is based on the rental and return of trays for fresh and packaged food. The lifespan of the trays is at least 7 years. EPS manages the traceability, collection, sorting, washing and repair of the trays in 73 service centres in 18 countries...In 2019, the EPS achieved a total of over 1.1 billion tray rotations across Europe.”*

**FEFCO comment:** The EPS is considered an example of successful reuse in Europe. However, the crates are made from virgin plastic<sup>2</sup> and, while they technically are recyclable, there is no evidence that they are recycled at end of life. Additionally, while the total number of tray rotations per year appears impressive, Euro Pool only states that “trays make multiple rotations a year”<sup>3</sup>. An IFCO own statistic states that one crate has about 4-5 rotations per year<sup>4</sup>. According to a peer-reviewed LCA<sup>1</sup>, the climate impact of RPC will only become better than recyclable corrugated cardboard after 63 rotations, which requires 12-15 years of uninterrupted service of individual crate. Therefore, ‘multiple rotations’ being 4-5 rotations per year are not enough for these reusable crates to have a better environmental impact than recyclable single-use packaging. The continued dependency on fossil resources contradicts the EU’s climate ambitions.

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<sup>2</sup> [Case-Study-Tesco.pdf \(hubspot.net\)](#)

<sup>3</sup> [EPG Sustainability Report 2018.pdf \(europoolgroup.com\)](#)

<sup>4</sup> [IFCO achieves 2 billion reusable packaging shipment milestone](#)



- **IA Part 2, Page 214: Incorrect estimation of fibre recycling**

*“As a general estimate, fibres can be recycled between 4 and 7 times before they can no longer be used in the paper manufacturing process.”*

**FEFCO comment:** A recent study<sup>5</sup> showed that cardboard fibre can be recycled more than 25 times with no significant loss in quality.

- **IA Part 2, Page 221: Recycled content difference is not explicitly mentioned**

*“Average recycled content in paper and card packaging applications is higher than in plastics (especially for corrugated cardboard and carton board), due to a greater supply of recycled material and fewer technical limitations. However, after multiple life cycles, paper fibres tend to become shorter and less suited to incorporation in new products. Additionally, beverage carton packaging, for technical reasons, cannot include recycled content. Food contact safety considerations also apply to paper and card packaging.”*

**FEFCO comment:** The significance of the difference between the average recycled content in paper and board packaging (about 75%, 89% for corrugated board) compared to only 11.7% for plastic PET bottles and 10% for plastic packaging in the UK (IA page 205) should be emphasised.

As previously mentioned, fibres can be recycled over 25 times with no loss of quality. Continuous supply of fresh fibres into the recycling system ensures is endless functionality.

- **IA Part 2, Page 232: Incorrect assumption**

*“Like plastic, recycled cardboard is a material that is prone to contamination, often with oil or grease from food which renders it unrecyclable. Additionally, material degrades after being reprocessed four to five times.”*

**FEFCO comment:** Cardboard that is contaminated by oil or grease is not rendered unrecyclable. According to the Confederation of Paper Industries, *“pizza boxes that are stained or marked should be considered recyclable and can now be collected in the usual paper and board stream. Stains or marks from contact with food do not prohibit paper and board from being recycled<sup>6</sup>”*.

Additionally, the claim that ‘material degrades after being reprocessed four to five times’ is incorrect: cardboard fibre can be recycled more than 25 times with no significant loss in quality<sup>7</sup>.

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<sup>5</sup> [Myth of Limited Fibre Cycles.pdf \(fefco.org\)](#)

<sup>6</sup> [Recycling \(paper.org.uk\)](#)

<sup>7</sup> [Myth of Limited Fibre Cycles.pdf \(fefco.org\)](#)

- **IA Part 2, Page 286: Incorrect data**

Table 15. Packaging Use by Material (2006, 2018, 2030, 2040), Billion Uses

	2006	2018	2030	2040
<i>Glass</i>	104	107	95	96
<i>Steel</i>	44	50	49	51
<i>Aluminium</i>	33	43	50	55
<b>Paper / board</b>	<b>2006</b>	<b>2018</b>	<b>2030</b>	<b>2040</b>

**FEFCO comment:** The data used in the ‘Paper / board’ row of Table 15 reflects the years, not the actual figures. The real figures are missing leading to questioning the estimations and conclusions of the IA, if incorrect data is applied.

- **IA Part 2, Page 290: Incorrect assumption**

*“Approximately 14% of corrugated cardboard (4.4% of all packaging waste) is used for e-commerce.”*

**FEFCO comment:** Industry estimations from 2022 shows that only 7% of corrugated cardboard is used for e-commerce. There is no source specified for the IA’s claim of 14%, therefore this should be clarified.

- **IA Part 2, Page 300: Reuse depend on plastic, which is the most carbon intensive packaging**

*“This (Figure 49) shows that plastic packaging is the most carbon intensive, at a total of 1.8 tonnes of CO2 emitted for the lifecycle of one tonne of plastic packaging placed on the market in 2018. This reduces to 1.5 tonnes by 2030, due to greater avoided emissions from recycling and a small reduction in manufacturing emissions per tonne due to the increase of recycled content in plastic beverage bottles to 30%, as stipulated in the SUP Directive. However, even with this increase in recycling rate...plastic packaging is still more carbon intensive than other packaging types.”*

**FEFCO comment:** The IA clearly recognises that plastic packaging generates the most GHG emissions compared to other materials. Despite this, the proposed reuse measures will encourage increases in plastic production, which is indicated in Annex 10 of the IA, leading to even higher CO2 emissions.

- **IA Part 2, Page 301: Incorrect assumption, GHG emissions**

*“In nearly all cases, the use of multi-use packaging leads to lower GHG emissions over the lifecycle of the product. For multi-use, whilst manufacturing impacts are greater at first (due to more weight/volume of material used per unit compared to single use), once apportioned on a per use basis they are much lower than for single use packaging. Washing and transport emissions are not insignificant, however, these emissions are significantly outweighed in most cases by the greater per use emissions from manufacturing and waste management for single use items.”*

**FEFCO comment:** The IA seems to assume that reuse typically leads to lower GHG emissions although several studies<sup>8</sup> have analysed cases where single-use packaging options produce lower emissions. As the statement mentions, transport and washing of reusable packaging contribute hugely to environmental impacts. It cannot be assumed that these are outweighed in 'most cases', especially since most existing reuse systems do not operate on a large scale or on an EU-wide basis. Once reuse systems are expanded across Europe, the impacts from transport and washing will play an enormous role in determining environmental impacts.

- **IA Part 2, Page 371 / 374: Lack of material neutrality**

*"This measure would only have an impact on the use of cardboard and plastics, as these are the materials that are predominantly used in the applications that would be targeted. According to the model this would lead to an overall reduction in waste generation of 1.7% as compared to the baseline, which can be attributed to a 3.5% reduction in the use of cardboard and a 1.1% reduction in the use of plastic packaging."*

*"A reduction in material use, predominantly cardboard (corrugated and carton board) with a smaller amount of plastic, results in some positive environmental impacts in terms of GHG emissions and water use."*

**FEFCO comment:** The statements refer to the minimisation of empty space in packaging and acknowledges the higher impact of the measure on paper (specifically corrugated cardboard) and plastic packaging. This measure's imbalanced impact demonstrates a lack of material neutrality. It raises the questions, if more targeted measures are suggested in the proposal.

In addition, the estimation of reduction in the use of plastic is most probably wrong, as plastic packaging will be the obvious replacement of cardboard packaging. This means that there will be an increase in plastic packaging on the market.

- **IA Part 2, Page 391: Breach of material neutrality principle**

*"The targets are material neutral as the best type of material and container for reusable packaging have yet to be established with respect to system performance and environmental benefits and varies for each application."*

**FEFCO comment:** The statement contradicts the assumptions made in the rest of the IA. When discussing reuse systems for any other application but beverages, reusable plastic packaging is always given as an example. Clearly, the reuse measures will favour plastic in most applications given the structural disadvantages of other materials. Claiming material neutrality is therefore not realistic.

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<sup>8</sup> [Comparative Life Cycle Assessment \(LCA\) \(fefco.org\)](https://www.fefco.org)