

## STAKEHOLDER CONSULTATION ON CHEMICAL, PRODUCT, WASTE INTERFACE

There is no doubt that moving away from a linear production model towards achieving a truly Circular Economy in Europe is an absolute priority. This translates notably into increased recycling rates for all materials.

Nevertheless, re-entering waste materials into the production process increases the risk of contamination of the final products placed on the market. Likewise, increased recycling rates as proposed in the revised waste legislation of the Circular Economy Package will have the natural effect of putting more pressure on the sorting, treatment and transformation of waste into quality secondary raw materials that can replace virgin raw materials in a production process.

And yet, managing this transition will be the guarantee of success of a circular economy. The European Container Glass Industry is ready to play its role in this important challenge for the future, as it has been doing so since the 1970s when post-consumer glass recycling started with the establishment of the first separate collection systems in Europe.

The European Commission is right in addressing the issue of the interface between chemicals, products and waste as the success of the circular economy will depend on a market for secondary raw materials that competes in terms of cost, quality and safety with virgin raw materials. However, the circular economy should not come at the expense of human health and should also protect the environment from the risks caused by migration and release of hazardous chemicals in material cycles.

All consumer and environmental risks linked to hazardous substances and chemicals of very high concern must be properly identified and addressed to foster trust from businesses and consumers in the market for secondary raw materials, which is the basis for a well-functioning circular economy.

### FEVE Key Messages

- ❖ Food packaging should be a focus area for the Commission's further work on the interface between chemicals, products and waste;
- ❖ Only food contact materials that can be effectively recycled and that do not pose a risk to human health and the environment should be placed on the market;
- ❖ Closed loop recycling systems and permanent materials for a clean Circular Economy must be incentivised;
- ❖ The Product Environmental Footprint Methodology must be improved in the light of the findings and results of this initiative, to better assess the environmental impact of chemical contaminants in materials and products.

## GLASS & GLASS MANUFACTURING FOR PACKAGING

In this context, it is worth highlighting some key elements of glass manufacturing for packaging purposes:

- Glass vessels (and most often borosilicate glass vessels) are extensively used in “in vitro” tests, also under REACH, clearly illustrating that glass is one of the most chemically and biologically inert materials known<sup>1</sup>. As a result, glass has been granted derogations or exemptions in European legislation (Landfill Directive, Packaging Directive, RoHS Directive...).
- Under the REACH Regulation, glass is considered as a new substance, which is exempted from registration due to its non-hazardous and inert nature.
- Glass is the most inert material in food contact: there is no migration of chemicals of concern from glass to the food, which ensures human health protection.
- Glass is a permanent material: once glass has been produced, it can be endlessly recycled without loss or degradation of its intrinsic chemical or physical properties. Today, 74% of glass is recycled in the EU and as long as separate collection schemes are put in place in all EU Member States, we expect the figure will continue to increase.
- Glass is one of the few materials to have developed EU-wide end-of-waste criteria, establishing a clear rule and traceability system for secondary raw materials that enter the production process and are effectively recycled.

## FOSTERING TRUST IN THE CIRCULAR ECONOMY: THE SPECIFIC CASE OF FOOD PACKAGING

The Food Contact Materials Regulation is a clear example of product specific legislation dealing with the issue of hazardous chemicals, which complements REACH for a group of products, i.e. materials and articles such as bottles and containers, which come – or may come – into contact with food. But there is no specific legislation for recycled materials in food contact legislation.

The overlap between food contact policy and packaging recycling is currently not addressed in the Commission’s roadmap. Yet, in the context of the ambitious recycling targets for individual materials under the Packaging & Packaging Waste Directive to be achieved by 2030, we recommend that a detailed case study should be made in this area.

Currently, the lack of knowledge of the relevant composition of the treated waste stream makes it impossible to assess the impact of recycled materials when used as food contact materials<sup>2</sup>. To foster trust in the market for secondary raw materials, and the uptake of recycled materials into the production of materials for food contact, it is essential that materials placed on the market can be effectively recycled and do not pose a risk to human health and the environment.

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<sup>1</sup> Regulation n°440/2008 laying down tests methods pursuant to REACH regulation

<sup>2</sup> Ernststoff, A., Trier, X., Jolliet, O., & Fantke, P. (2014). Incorporating Health Impacts from Exposure to Chemicals in Food Packaging in LCA. In R. Schenck, & D. Huizenga (Eds.), Proceedings of the 9th International Conference on Life Cycle Assessment in the Agri-Food Sector (pp. 348-354). ACLCA.

## OTHER POLICY CONSIDERATIONS

### Enhancing the role of permanent materials and closed loop recycling for a clean Circular Economy

The European Commission must ensure that only materials that can be effectively recycled and that do not pose a risk to human health or the environment should be placed on the market. Where risks are identified, and where alternatives exist, the Roadmap should take into account the potential for substitution of a material that presents a risk of chemical contamination with the least harmful alternative material – whether in terms of food contact or in terms of its recycling capacity. Permanent materials that are safe for human health and the environment, and that maintain their properties even when recycled, must be incentivised.

Emphasis should be made on closed loop recycling for food contact materials, to increase the safety of the recycled materials that enter into contact with food. Closed loop recycling limits the risk of contamination at the recycling stage, but it is also a guarantee that the packaging placed on the market has the highest possible recycled content – rather than being produced from virgin raw materials.

### Improving the Product Environmental Footprint Methodology

More and more choices are being made based on Life Cycle Assessment (LCA) in different supply chains. Increasingly, policy-makers are also considering LCA as a tool to support policy choices, especially in achieving the Circular Economy.

In the context of the Circular Economy Action Plan, the Commission has developed 25 product pilots under the Product Environmental Footprint Project, which have all been charged with developing an LCA methodology. However, there are gaps in the assessment of the environmental impact of certain products in relation to the chemical contamination of recycling chains, leaching behaviour (for food contact applications but also in the environment), and in failing to capture the risks of unidentified substances present in material cycles with an impact on human health and the environment.

In addition, further research needs to be carried out to assess the quality of secondary raw materials compared to the virgin ones<sup>3</sup>, and build this comparison into LCA. If the inherent properties of secondary materials equal the ones of primary materials at the point of substitution – as is the case for permanent materials such as glass and metals – this should be taken into account in LCA.

We recommend therefore that the findings and results of this Commission initiative also supplement the work carried out in the PEF to better assess the presence of chemical contaminants in materials and products when waste management and toxicity is evaluated in LCA.

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<sup>3</sup> A methodology to assess the quality of recovered materials compared to virgin ones in Life Cycle Assessment studies. May 2017. Politecnico di Milano, Department of Civil and Environmental Engineering, AWARE Research Group. Link:  
[https://webgate.ec.europa.eu/fpfis/wikis/download/attachments/80613270/Polimi\\_FEVE\\_TAB.pptx?api=v2](https://webgate.ec.europa.eu/fpfis/wikis/download/attachments/80613270/Polimi_FEVE_TAB.pptx?api=v2)

## **ABOUT FEVE**

FEVE is the Federation of European manufacturers of glass containers and machine-made glass tableware. Its members produce over 20 million tonnes of glass per year. The association has some 60 corporate members belonging to approximately 20 independent corporate groups. Manufacturing plants are located across 23 European States and include global blue chip and major companies working for the world's biggest consumer brands. The European container glass industry provides a wide range of glass packaging products for food and beverages as well as flacons for perfumery, cosmetics and pharmacy to their European and world customers. With its 160 manufacturing plants distributed all over Europe, it is an important contributor to Europe's real economy and provides employment to about 50,000 people, while creating many job opportunities along the total supply chain.

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