

European paper industry position on separate collection

9 October 2018

Clarifications on CEPI's position on the separate collection of paper and board from residual waste and other recyclables and the collection and recyclability of paper products that are multi-layered or have been in contact with food.

1. Preliminary remarks:

This paper targets decision makers in countries, where separate collection systems are not yet well established and guidance is needed. The paper does not intend to challenge countries with well-established collection systems accepted by the national paper industry even though diverging from these recommendations.

CEPI will continue assessing developments in materials, sorting and recycling technologies to review these guidelines as appropriate.

2. Rationale:

The purpose of paper recycling is to produce high quality recycled paper, responding to the high quality specifications required by paper users either from the graphic, hygiene or packaging sectors. As a consequence, any collection scheme shall be designed in a way to provide grades of paper for recycling adapted to the requirements of a high value recycling, according to the [EN 643](#) to the paper industry, either directly or after sorting. CEPI has a standing position explaining why the paper industry is opposed to the commingled collection of paper and board and in favour of separate collection. It is however clear that the term "separate collection" is understood in different ways by stakeholders and governments. By separate collection, CEPI means collection of paper and board separate at source from residual waste and from other recyclables. In contrast, a co-mingled collection system is one where all recyclable materials or "dry" waste (including (or not) glass) are collected together (citizens put everything together in the same bin) and sent to MRFs (Materials Recycling facilities) where recyclables are separated by material.

This paper should provide guidance to decision makers on household waste collection and the collection of paper waste from small shops, on-the-go food shops and offices.

The considerations of this paper are driven by the objective of maximising the recycling rate and best efficiency in all steps of the recycling chain: easiness of understanding for the final consumer, cost-efficiency in the collection and sorting, maximum recycling rate and process efficiency at the final recycling by the paper mill.

In addition, discussions in the media have emerged about the recyclability of certain paper products and therefore the way they should be collected. Finally, the EN 643 contains provisions on the prohibition of materials such as food waste in grades of paper for recycling, which needs interpretation. Annex 1 will give examples on the collection and recycling of these specific paper products.

3. Main message from the paper industry: generally, for their absolute majority, paper products should be collected separately from waste and separately from other recyclables

Paper and board should be collected separately from residual waste and also separate from other recyclables. This increases the homogeneity of the stream, therefore secures the good quality of the material and high economic and environmental value for those trading it. It secures the demand for this kind of material by paper mills who recycle it in a cost-, energy- and material-efficient way to produce recycled pulp and new paper and board products. In certain circumstances, it makes economic, logistical and environmental sense to selectively collect graphic papers (newspapers, magazines, copy paper) from packaging. In these cases, when graphic paper is selectively collected, it is important to make sure also packaging papers are kept separately from other recyclable material streams. Generally speaking, 100% of paper based packaging is recyclable. After use, disposal, collection and sorting, it is typically recycled in a paper mill producing recycled paper and board for new packaging products. The EU Horizon 2020 financed project [IMPACTPapeRec](#) has demonstrated the feasibility and benefits of separate collection and CEPI continues to advocate against co-mingled collections.

Separate collection of the paper and board stream, separate from other recyclables should be fully implemented in Europe²

² This conclusion is particularly relevant for countries, where separate collection systems are not yet well established and guidance is needed. The paper does not intend to challenge countries with well-established collection systems accepted by the national paper industry even though diverging from these recommendations.

Annex1: Examples on collection and recycling of specific paper packaging products

- 1. Multilayered paper packaging, for example items made with metal foil, plastic liners and metal bases such as cans containing crisps, whisky bottles and beverage cartons should be collected separately from paper and board.**

The main purpose of all paper packaging is to protect the goods packed in it. And paper being made from the renewable raw material wood is used for an increasing number of applications substituting non-renewable packaging. For some applications, it is necessary to strengthen or layer the paper packaging with non-paper material. When paper and board is bonded with aluminum and/or plastic materials such as polyethylene, it forms a complex multi-layered paper packaging material. It is used for example for beverage cartons or plastic-layered kraft sacks. These can be recycled in dedicated paper mills. They should be collected separately from paper and board, together with other recyclables for the following reasons:

- a) They are significant enough: even though this stream represents a very small amount of all paper packaging, the amount of this material is significant enough to sort it from other materials in sorting plants.
 - b) They disturb the standard paper recycling process: If these products are collected in the normal paper and board stream without any further sorting and delivered to a standard paper mill, they will not fully disintegrate in the pulper, but end up to a large extent as a reject, which will typically be used for energy generation.
 - c) They are totally recyclable only in dedicated paper mills: a significant number of papermakers have invested in such infrastructure with specific processes ranging from process adaptations to different process set-ups to recycle these products. It is however necessary that they are separately collected and sorted to be delivered to these dedicated mills in a specific stream.
 - d) They contain residues. The residual content of such paper packaging would soil other paper and board, while materials in the “other recyclables” stream are not affected by this.
- In most European countries paper-based, multi-layered composites are already collected separately from ordinary paper and board, mostly together with other recyclable packaging (lightweight packaging collection system). For countries, where these products are not yet separately collected, it is therefore advised, that these products are collected separately from the residual waste, but not with the ordinary paper and board stream. Then they should be sorted and form a stream that can be delivered to a dedicated mill, which has the technology in place to separate the different components and recycle them into new products. These mills

can typically also recycle other layered paper packaging and packaging that has been in contact with foodstuff.⁴

2. Other layered packaging (e.g. on the go food packaging such as used coffee cups)

There are also other paper packaging products, which are used in food packaging and may contain thin layers of non-paper or wet-strength to protect the food they contain. These paper packaging products appear in great amounts in public places such as high streets or in on-the-go food shops. Here, these paper packaging products should be collected in a separate stream. They should then be sorted and recycled in dedicated mills. When these products are used in households, they should be collected with the lightweight packaging stream, from which they are sorted and recycled in dedicated mills because they are lined.

3. Paper and board only products, which have been in contact with foodstuff (e.g. used pizza boxes)

The EN 643 – European list of grades of paper and board for recycling defines prohibited materials that are not permitted in grades of paper and board for recycling as follows: any materials which represent a hazard for health, safety and environment, such as medical waste, contaminated products of personal hygiene, hazardous waste, **organic waste including foodstuffs**, bitumen, toxic powders and similar.

Contamination with food stuffs means visible quantities of food (e.g. pieces of food). Light traces, stains, marks or residues from contact with food are not covered by the EN 643 definition of prohibited materials.

Paper-only food packaging (such as pizza boxes) can therefore be collected through the paper and board stream as standard paper mills can recycle the material. It is not necessary to collect this material through the lightweight packaging fraction.

- ➔ Packaging that is stained or marked is recyclable. It should be collected with the paper and board stream.⁵
- ➔ Packaging containing solid food residues should be cleaned so there is no solid food contamination before being discarded with the paper and board stream. If cleaning is impossible, it should be discarded with the residual waste.

⁴ The EN 643 contains in its group 5 (special grades) specific grades for used beverage cartons (grade 5.03.00 and used paper cups and tableware (grade 5.14.00)

⁵ Producers of food contact materials should however follow specific guidelines, such as the Good Manufacturing Practice for the Manufacture of Paper and Board for Food Contact (<http://www.cepi.org/node/834>) as well as the Industry Guideline Industry guideline for the Compliance of Paper & Board Materials and Articles for Food Contact www.cepi.org/node/686



4. Communication

It is recommended the paper industry, waste management companies and local authorities give very illustrative examples to householders, small shops and on-the-go restaurants to educate citizens and customers about the recyclability of paper based food packaging and the subsequent decision on their collection method.

Illustration 1: How should paper packaging be collected to reach its recycling process? (This does not challenge existing systems, but could give advice in situations where certain fractions of paper packaging are not yet separately collected)

Category	Paper and board from households	Paper Packaging that was in contact with food	Multilayered board	Other layered board	
Example	Transport packaging	Used pizza boxes	Beverage cartons	Used coffee cups	Sandwich boxes, microwave trays
Estimated Discarded volume in Europe (tons)	24 million		under 1 million	100.000-200.000	
Where should it be collected?	In the paper and board stream	If cleaned and only lightly stained in the paper and board stream. If food residues, discarded in the residual stream	With lightweight packaging (drink bottles and cans)	In high streets, fast food restaurants: In a specific stream In households: With lightweight packaging (drink bottles and cans)	In high streets, fast food restaurants: In a specific stream In households: With lightweight packaging (drink bottles and cans)
How should it be sorted?	Into 1.01,102, 1.04,1.05, 1.11	Into 1.01, 1.02, 1.04, 1.05	Into 5.03	Into 5.14	Into 5.02
Where will it be normally recycled?	In standard paper and board mills	In standard paper and board mills	In mills with special equipment which can use special grades (EN 643 Group 5)	In mills with special equipment which can use special grades (EN 643 Group 5)	In mills with special equipment which can use special grades (EN 643 Group 5)