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ENVIRONMENTAL IMPACT OF WASTE MANAGEMENT
REVISION OF EU WASTE FRAMEWORK
CALL FOR EVIDENCE

1. STEEL FOR PACKAGING

APEAL, the Association of European Producers of Steel for Packaging, unites the six producers of steel for packaging in Europe. Its members (Acciaierie d'Italia, ArcelorMittal, Liberty Liège-Dudelange, Tata Steel, ThyssenKrupp Rasselstein and U. S. Steel Košice) employ over 200,000 workers in Europe, 15,000 of whom are employed directly in the production of steel for packaging across 11 dedicated manufacturing sites.
The steel sector is a top performer in recycling packaging materials. With a recycling rate of 84%[1], steel for packaging is the most recycled primary packaging in Europe. Our industry has worked closely with European, national and local authorities, Extended Producer Responsibility Schemes, waste management operators, customers, brands and civil society at large, to invest in collection systems that underpin the recycling infrastructure.

2. CONTEXT

The steel for packaging sector fully supports the European Commission's ambition to make the European Union climate neutral by 2050, boost the economy through green technology and achieve a truly circular economy for the benefit of citizens, the environment and the EU economy. In 2020, the European Commission adopted the new circular economy action plan (CEAP) . It is one of the main building blocks of the European Green Deal, Europe's new agenda for sustainable growth.

APEAL endorses the EU's Circular Economy Plan (CEAP), plan in which enhanced waste policy is defined in support of waste prevention and circularity. Contributing to this circularity are products, including packaging, having a high recyclability as well as optimised separate collection schemes for municipal waste, including packaging waste. Such schemes are it is a prerequisite for high-quality input to the recycling operations. Valuable materials need to stay in the circular loop as long as possible and high-quality recycling, using the material not just once, but over and over again not only saves resources, but also CO2- and other emissions and water consumption.

[1] APEAL-website: Steel for packaging recycling rate 2019

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3. APEAL POSITION – SUMMARY

- **APEAL supports a review of the waste hierarchy**

APEAL believes that the waste hierarchy should be adapted to a new circular reality. In the initial legislative proposals of the EC, a 3-step hierarchy was suggested, composed of (1) prevention and reuse, (2) recycling and recovery and (3) disposal. In 2008, a 5-step hierarchy was adopted in the waste legislation (WFD 2008/98/EC), composed of (1) waste prevention, (2) reuse, (3) recycling, (4) recovery and (5) safe disposal. As for the upcoming review of the WFD, APEAL believes that within "recycling", an additional hierarchical order could be introduced to differentiate from on the one hand permanent materials like steel that can keep their inherent properties, no matter how many times they are recycled and, on the other hand, materials that are downgraded and that can only be recycled a limited amount of times. Not all forms of recycling are equal in terms environmental and economic benefits. This approach would give incentives to the producers of packaging and promote circularity. APEAL also believe that the EU should gradually abandon the practice of disposal or landfill especially for recyclable packaging materials like steel.

- **APEAL supports "real" recycling**

Real recycling should be promoted, not only applying the in the CID 2019/1004 introduced calculation point definition, but also **aiming at high-quality recycling** and **ensuring only recycling processes to be considered as recycling,** excluding energy recovery operations and the reprocessing into materials that are to be used as fuels or for backfilling operations.

It is APEAL's view that high-quality recycling, a concept enshrined in both the Waste Framework Directive (WFD) and the Packaging and Packaging Waste Directive (PPWD) should be defined in the upcoming review of the WFD. We believe that high-quality recycling must be based on two criteria:

- The ability of a material to retain its inherent properties after recycling, and its ability to replace primary raw materials in future applications.
- The existence (or the development within an acceptable timeframe) of an efficient recycling scheme.

- **APEAL supports optimised separate collection**

Optimised separate collection should be promoted, as it is a prerequisite to guarantee high-quality recycling, ensuring that valuable materials are kept in the circular loop as long as possible. When considering co-mingled collection schemes, cross-contamination risks need to be assessed.

- **APEAL supports the initiative for the reduction of food waste**

Food waste constitutes a significant part of the municipal waste. In the Farm to Fork Strategy, the European Commission supports the use of "innovative and sustainable packaging solutions using environmentally-friendly, re-usable and recyclable materials" and consequently acknowledges the key role of food packaging in the sustainability food systems.

Details on this summarised APEAL position, can be found in annex.

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4. APEAL'S SECOND RECYCLING BOOK

Early 2022, APEAL, supporting optimised waste management, launched its second recycling book on the collection, sorting and recycling of steel for packaging, focusing on 4 best practices:

- Optimised separate collection and sorting
- Collection and sorting of steel caps, lids and closures
- How scrap standards can ensure high-quality input to recycling
- Designing for recyclability in a circular economy

Link: **APEAL_Why steel recycles forever_Report 2022**

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ANNEX - MOVING UP IN THE WASTE HIERARCHY

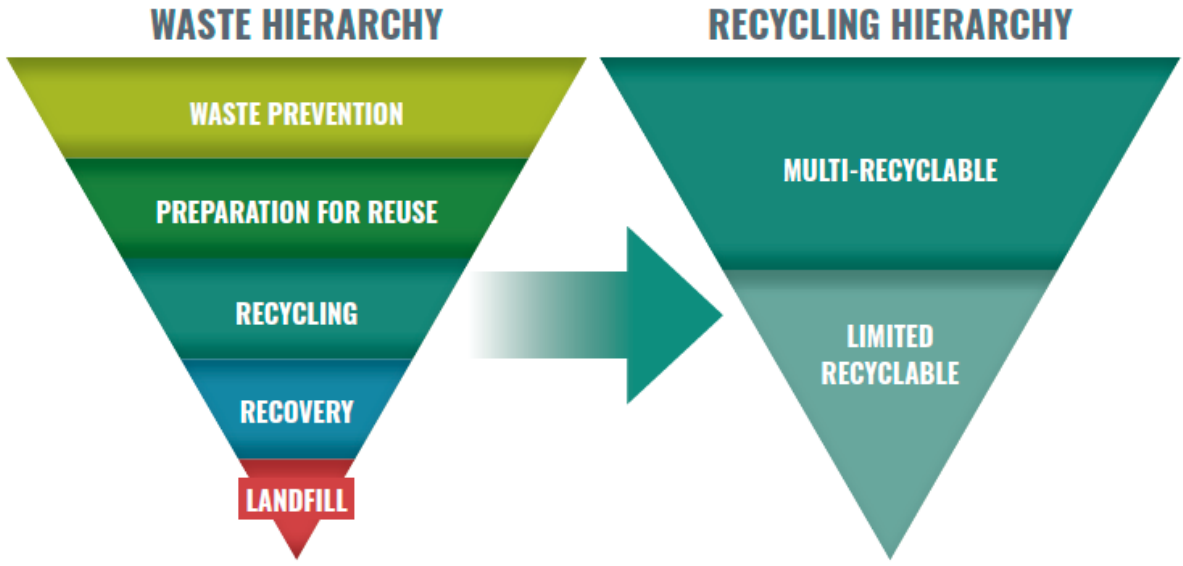
1. Recycling hierarchy

In the context of the review of the PPWD (2018/852), APEAL has made a proposal which consists of establishing a "recycling hierarchy". Not all forms of recycling are of equal benefit, APEAL believes that introducing a "recycling hierarchy" will promote circularity:

- Multi-recyclable, i.e., packaging materials that have the ability to retain their inherent properties after recycling and are capable of replacing the same primary raw material in future applications. Multi-recyclable also means that recycling process for these materials can be repeated over and over again with high recycling yields, guaranteeing minimal amount of material losses, thus maintaining a circular material loop.

- Limited recyclable, i.e., the potential to be recycled only a few times with a risk of losing the inherent properties. The recycling process for these materials leads to a gradual degradation of the original material. The recycled material might not always substitute the primary material on a like-for-like basis, risks to be down-cycled and finally leaves its circular material loop.

Introducing a recycling hierarchy will promote circularity, high-quality scrap materials and multiple recycling:



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2. Real recycling

Calculation point of recycling

APEAL supports the clear definitions "calculation point" and "measuring point", set in the Commission Implementation Decision (CID) 2019/1004:

- *'Calculation point' means the point where municipal waste materials enter the recycling operation whereby waste is reprocessed into products, materials or substances that are not waste or the point where waste materials cease to be waste as a result of a preparatory operation before being reprocessed;*

- *'Measurement point' means the point where the mass of waste materials is measured with a view to determining the amount of waste at the calculation point;*

Applying these definitions will not only ensure a level playing field between the Member States, but also between the product materials, including for packaging.

High-quality recycling

It is APEAL's view that high-quality recycling, a concept referred to in both the Waste Framework Directive (WFD) and the Packaging and Packaging Waste Directive (PPWD) should be used in the context of the JRC-study *"Assessment of the definition of recycling"*.

It is our believe that high-quality recycled, however not defined yet, must be based on two criteria:

> (1) The ability of a material to retain its inherent properties after recycling, and its ability to replace primary raw materials in future applications. In this context we also refer to the European Parliament's resolution (paragraph 39) on the New Circular Economy Action Plan which states *"...need to increase the availability and quality of recyclates, focusing on the ability of a material to retain its inherent properties after recycling, and its ability to replace primary raw materials in future applications*"[2]
>
> (2) The existence (or upon case the development within an acceptable timeframe) of an efficient recycling scheme. This scheme needs to collect a significant share of the tonnage put on the market and deliver recyclates meeting of equivalent quality compared to the original virgin material. It will ensure that packaging is not only recyclable, but also effectively recycled.

Furthermore, APEAL believes that high-quality recycling starts with the design of the packaging and therefore, highly recyclable packaging should be advanced (among others through legislation) and rewarded (e.g., through EPR eco-modulated fees). However, design for recycling alone is not enough for a true circular economy. At the end of its life, the packaging needs also to be effectively recycled.

[2] 2 European Parliament resolution of 10 February 2021 on the New Circular Economy Action Plan - https://www.europarl.europa.eu/doceo/document/TA-9-2021-0040_EN.pdf

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Only recycling processes to be considered as recycling

Definition of recycling in Waste Frame Directive (WFD, 2008/98/EC): *"'recycling' means any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes. It includes the reprocessing of organic material but does not include energy recovery and the reprocessing into materials that are to be used as fuels or for backfilling operations."*

APEAL believes this definition is clear and promotes real recycling operations, excluding energy recovery and the reprocessing into materials to be used as fuels or for backfilling operations. As for 'chemical recycling', APEAL is not in position to comment. However, APEAL believes that all process should be duly assessed before they can qualify as 'recycling'. The distinction between functional and non-functional recycling elaborated by BIO by Deloitte[3] in the context of critical raw materials is therefore a good starting point.

The rule of applying the mass balance approach for calculating the recycled (packaging) waste, as described in article 3(8) of the CID 2019/1004 and article 6c(i) of the CID 2019/665, is also clear. APEAL fully supports the calculation rules for packaging waste described in the CID 2019/665, including using a natural humidity rate of the packaging waste comparable to the humidity rate of equivalent packaging put on the market (article 5(a)(i)). In practice, this means that the impurities, mainly plastics and papers captured with steel in the sorting centres, will also be deducted from the scrap steel packaging sourced by sorting centres before the recycling process. Furthermore, APEAL also endorses the rules specifying how to include ferrous metals recuperated from the incinerated ferrous bottom ashes in the recycling data.

3. Optimised separate collection

EU's Circular Economy Plan (CEAP) commits the Commission to investigate the potential for harmonising separate waste collection systems across the EU. As APEAL, we recognise the need to optimise the separate collection of municipal waste, including packaging waste as it is a prerequisite for high-quality input to the recycling operations. Valuable materials need to stay in the circular loop as long as possible and high-quality recycling, using the material not just once, but over and over again not only saves resources, but also CO2- and other emissions and water consumption.

Optimised separate collection of municipal waste is a prerequisite to guarantee high-quality recycling as it ensures that valuable materials are kept in the circular loop as long as possible. For metals, aside from mono-streams or co-mingled streams with metals together with other light packaging materials like plastics and composite packaging, other good practices, such as metals together with glass, need to be analysed as alternative options. In a scheme where metals and other light packaging materials are collected co-mingled, cross-contamination may occur as flexible packaging can be entangled in the metal packaging, with an impact on the metal bales. Awareness creating campaigns towards citizens are therefore needed to avoid entanglement. In a co-mingled scheme, cross-subsidising of a packaging material by another one needs to be avoided. Collection and sorting costs therefore need to be calculated and allocated per material.

[3] BIO by Deloitte, 2015, UNEP 2011: Functional recycling: "…the element in a discarded product is separated and sorted to obtain secondary material displacing same primary material (high-quality; Non-functional recycling: "…the element in a discarded product is collected and incorporated in an associated large magnitude material stream. This represents the loss of its function as it is generally impossible to recover it from the large magnitude stream" (low-quality)

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Because of lower quantity and quality for recycling, a less preferred route for steel packaging waste treatment is through mixed waste with subsequent treatment through incineration. However, the transition away from mixed waste treatment to separate collection cannot be made overnight. Therefore, in APEAL's point of view, prior to incineration (and in the Member States where landfill is still allowed), mixed waste should undergo a pre-treatment to remove valuable high-quality materials, such as steel for packaging. For steel, this could be done by installing a magnet which is the most cost-effective way of sorting. In an ideal scenario, and where technically and economically feasible, moving up in the waste hierarchy is preferred. However, in a true circular economy, one should not only look at the top levels of the waste hierarchy, but also at the lowest level. One of the goals of the CEAP is for all packaging to be recyclable or reusable by 2030. Diverting all recyclable packaging from landfill should therefore be phased out.

4. Food waste reduction

In the Farm to Fork Strategy, the European Commission supports the use of "innovative and sustainable packaging solutions using environmentally-friendly, re-usable and recyclable materials". Consequently, the EU acknowledges the key role of food packaging in the sustainability food systems. Packaging serves multiple functions. It is designed to protect a specific product, convey product information, preserve food and make it safe and easy-to-use for consumers. Packaging materials that extend shelf-life have an important role to play to reduce food waste. Steel offers the longest shelf life of all packaging materials, up to five years for certain applications. Cans are virtually unbreakable, reducing the risk of leaking or tearing during transportation, warehousing, as well as on retail shelves and in consumers' homes. Fruit and vegetables, picked at height of ripeness and usually canned within hours of harvesting, retain their nutrients throughout their shelf life. Misshapen or "ugly" food is often canned and processed minimising product loss at processing and retail. Products packed in steel can be stored for long periods without the need for fridges or freezers. It is, therefore, our firm belief that steel packaging can provide a meaningful contribution to meet the upcoming food waste reduction targets.

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