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ASSESSMENT OF THE DEFINITION OF RECYCLING (JRC STUDY, INCLUDING STAKEHOLDERS' SURVEY)

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.

2. CONTEXT

The steel for packaging sector fully supports the European Commission's ambitions described in the [European Green Deal](#) and the [new circular economy action plan \(CEAP\)](#). One of the key product value chains elaborated on in the new CEAP, is packaging and, as APEAL, we recognise the need to make all packaging put on the market either recyclable or reusable by 2030.

The objectives of the study on the "Assessment of the definition of recycling" that the JRC is currently running in collaboration with DG ENV, are threefold:

- To identify any relevant recycling process that is excluded from the current definition of recycling and on which further assessment and guidance is necessary to define appropriate calculation rules;
- To identify appropriate calculation rules for the estimation of the recycling rate for such processes (with special attention to chemical recycling);
- To discuss and suggest potentially relevant approaches for defining quality of recycling

APEAL has expressed its interest to actively participate and contribute to the stakeholder's consultation and the final report with Technical Proposals on an assessment of the definition of recycling (3rd quarter 2022). However, our sector is not in position to respond to some of the questions circulated by JRC. For this reason, APEAL wishes to share the position of the steel for packaging sector via the present position paper which focuses on the recycling of steel for packaging waste only.

3. THE RECYCLING OF STEEL FOR PACKAGING

Steel for packaging is an essential segment within the steel industry and has a well-functioning, durable and sustainable recycling market. Our strong recycling performance is widely recognised and long-lasting. Moreover, the business model of our industry is in fact circular by nature as the input of steel scrap is a necessary component for making new steel at any one of more than 500 steel plants in Europe. The more quality scrap that can be used in new steel production, the less raw materials and energy are needed and in turn, this reduces emissions.

¹ APEAL-website: [Steel for Packaging recycling rate 2019](#)

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.

How does it work in practice? Steel for packaging can be recycled via different routes. The preferred route is the separate collection of steel packaging waste. This route is the best guarantee for high-quality input into the recycling operations. If no separate collection can be organised there is also a second route for the recycling of steel for packaging being the recuperation of the steel packaging waste from incinerated bottom ashes. This route is being regulated via specific rules defined in a Commission Implementing Decision (CID, 2019/665) as outlined in the JRC presentation from 22 June 2021. The recuperated ferrous metals from bottom ashes after the incineration process, also are an input to the recycling operation after an additional treatment. However, landfilling of steel packaging waste should be avoided as steel packaging should remain in the circular material loop.

4. ASSESSMENT OF THE DEFINITION OF RECYCLING

4.1. Recycling definition in WFD and defined calculation rules:

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.

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.

4.2. 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 present study. High-quality recycled, however not defined yet, must be based on two criteria:

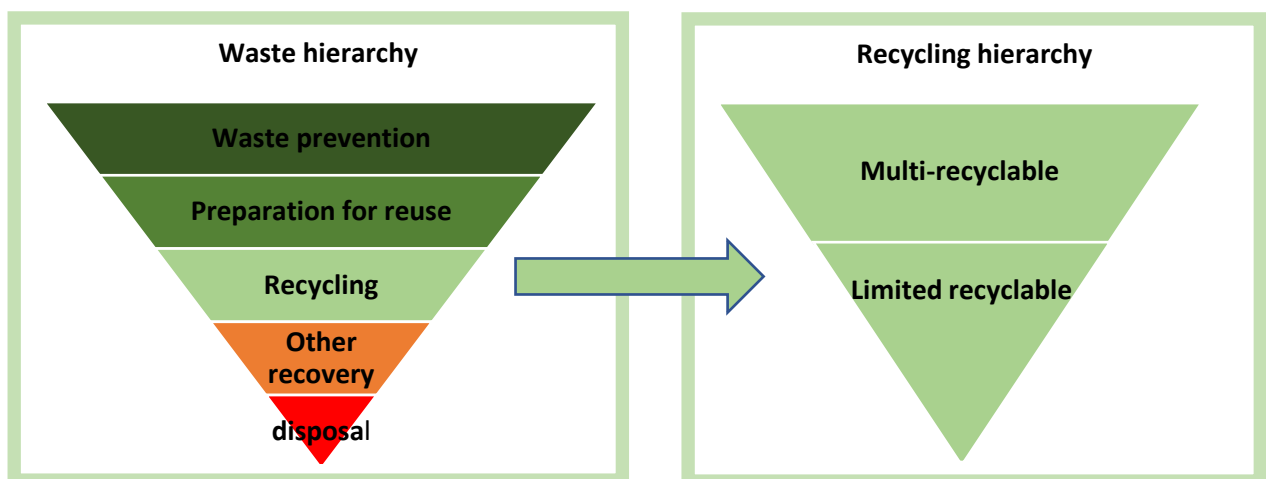
- The ability of a material to retain its inherent properties after recycling, and its ability to replace primary raw materials in future applications. In this context we also refer to the European Parliament’s resolution (paragraph 39) on the New Circular Economy Action Plan which states *“...need to 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;
- 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.

² European Parliament resolution of 10 February 2021 on the New Circular Economy Action Plan - [P9_TA\(2021\)0040](#)

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 Deloitte³ in the context of critical raw materials is therefore a good starting point.

In the context of the review of the PPWD (2018/852), APEAL has already made a similar 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.



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.

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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)