

Questions and Answers

A single EU calculation method for measuring real recycling rates

Introduction

The European Commission has proposed to introduce a single EU calculation method for measuring real recycling rates for municipal waste, at the input into the final recycling process.

The European non-ferrous metals industry supports this proposal, alongside other major material recyclers (steel, paper, plastics recyclers).

In this document, we provide the non-ferrous metals sector's answers to questions about the feasibility of a single EU calculation method.

1. Where should EU recycling rates be measured?

We support the European Commission's proposal to measure recycling rates at input to the final recycling process (i.e. the last stage of the recycling value chain¹)

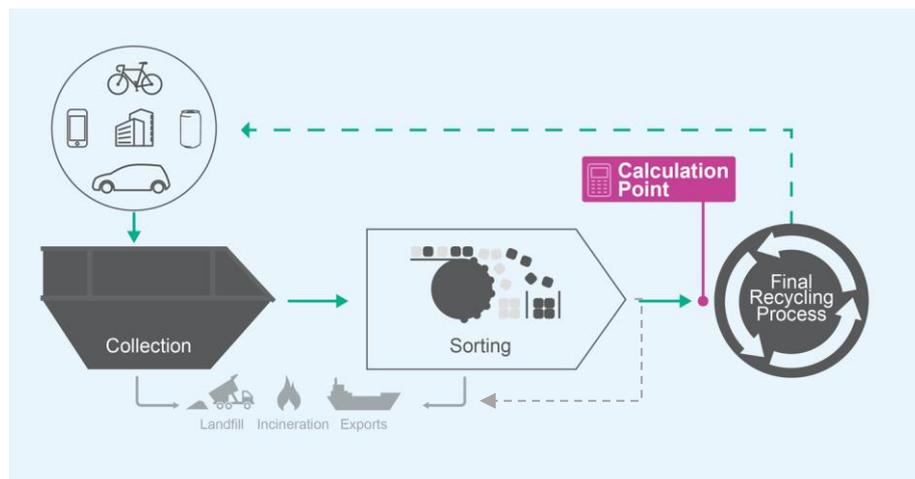


Figure 1. Recycling value chain and the point of measurement

¹ The recycling value chain has three stages:

1. Collection, the beginning of any waste management process
2. Sorting, preparation for material recovery and recycling, covering mechanical operations and other sorting steps
3. Material recycling, consisting of chemical, physical or metallurgical operations, but not including incineration for energy recovery and the reprocessing into materials that are to be used as fuels

This will:

- Ensure that valuable materials are recycled from end-of-life products, making sure that collected or sorted waste is not already counted as recycled before it enters a final recycling process.
- Promote high-quality material recycling,
- Incentivize better separate collection and sorting, hence increasing quality of material and decreasing contamination.

In our case, metallurgical processes can extract even small amounts of metals (such as copper and precious metals from electronic scrap) at its purest form. To ensure these metals are efficiently recycled, it's necessary to complete all sorting/preparation steps prior to final recycling.

2. What is wrong with the current system of calculating recycling rates?

In Europe, Member States use different methods for calculating national recycling rates, making comparison difficult. Some base their calculations on waste collected or sorted, while much of that waste will still be incinerated², landfilled, recycled with low quality processes or exported without guarantee of quality recycling and equivalent conditions.

Thus, reporting recycling at the point where materials enter a final recycling process will allow for greater consistency in how Member States report their performance against the targets, and it will identify the final recycling process, hence allowing to verify that a quality recycling process did happen in practice.

A true Circular Economy will only be achieved if materials contained in EoL-products are comprehensively recycled at a quality which enables again their use in new products. A prerequisite for this is the use of quality recycling processes along the chain which combine high technical performance (i.e. range and yields of reclaimed materials) with sound environmental, health and safety conditions.

3. Why not measure EU recycling rates at the output of sorting?

At the output of sorting, there is no guarantee that materials will be reprocessed into products, materials or substances.

Firstly, there is no legal definition of “sorting”. The term “sorting” thus may be linked with several different steps, not necessarily covering all steps prior to final materials recycling.

In our sector, the output from preliminary sorting plants can be:

- Fractions which are directed to incineration plants or to landfill

² N.B. Certain materials are still recycled after incineration. For example, metals are recycled from bottom-ash incineration. However, they should only be counted as recycled when entering the final recycling process.

- Mixed metals fractions (ferrous and non-ferrous), which still need to pass further steps before entering the final metallurgical process
- Bundled used aluminium packaging, which still contains impurities needing to be removed before remelting can start. This sometimes includes a separate industrial treatment process, called pyrolysis.

Having the point of measurement at input to the final recycling process is the only way to guarantee that waste fractions have undergone all sorting operations.

In some cases, traders will try and find the best bidder to transport such output fractions, without ensuring they are recycled under conditions equivalent to minimum EU treatment standards.

Additionally, output fractions from sorting operations need quality control and traceability. This will ensure that final recycling has taken place under high-quality processes with regard to EU environment, health and safety standards, and that waste fractions are not deviated to other channels.

4. Why “output from sorting operations” is insufficient to guarantee that collected and sorted waste will be properly and eventually recycled?

As mentioned above, losses occur even after first sorting operations have taken place.

To measure real recycling rates, it is not sufficient to count at output of the first sorting nor at the last sorting step and assume that recycling will take place through further operations. Losses – such as shipments to third countries, without efficient quality recycling infrastructure or landfilling or incineration - can still take place during such operations.

Real recycling will only take place after all sorting operations are completed and where waste fractions are guaranteed to enter a quality final recycling process where they are reprocessed into substances, materials and products that can be re-inserted into a new application/product.

5. Why is it important to keep a reference to “enters a (production) process” in the final recycling definition?

The European Commission’s definition of **final recycling process** rightly starts when waste “*enters a production process where waste materials are effectively reprocessed into products, materials or substances*” – following the completion of all necessary sorting.

It is crucial to keep a reference to “enters a process” in the definition of final recycling process. This specifies that a separate process is needed after all sorting and at the end of the recycling value



chain, in order to actually recycle the waste fractions & reprocess them into products, materials or substances³.

The word “production” is not essential in this context, and could potentially be deleted in case of any concerns. For our sector, “enters a process” provides sufficient clarity on where the separate final process begins.

Without this clarity, the final recycling process could be interpreted at the output of sorting, without fractions needing to enter a separate process. Such legal ambiguity would lead to inconsistent measurement points across Member States, undermining the ambition for a single methodology.

6. Can non-ferrous metals recyclers differentiate between waste received from municipal and industrial sources?

It is crucial to identify and trace material streams along the recycling value chain to obtain real recycling targets. Thus, to allow verifiable statistics the stakeholders in the recycling value chain should deliver data at each step and process. This will allow the differentiation of waste received from municipal and industrial sources as well as the country waste has originally been sourced from.

Under the WEEE Directive 2012/19/EU Article 11 (4) Member States () need to ensure that for the purpose of calculating targets, producers or third parties working on their behalf keep records on the weight of WEEE, its components, materials or substances when leaving (output) the collection facility, entering (input) and leaving (output) the treatment facilities and when entering (input) the recovery or recycling facility.

7. What is meant by “effectively reprocessed” in the European Commission’s definition of final recycling process?

In our understanding, “effectively reprocessed” refers to waste fractions that have been actually and efficiently recycled. This should include high-quality recycling processes, where materials are recycled comprehensively in conditions respecting EU environmental and social standards.

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³ In line with conclusions from Eunomia in its report to support the waste targets review (July 2016).

ANNEX – Definitions in Waste Framework Directive

Existing Definitions in Waste Framework Directive (2008/98/EC)

- **‘waste’** means any substance or object which the holder discards or intends or is required to discard;
- **‘collection’** means the gathering of waste, including the preliminary sorting and preliminary storage of waste for the purposes of transport to a waste treatment facility;
- **‘treatment’** means recovery or disposal operations, including preparation prior to recovery or disposal;
- **‘recovery’** means any operation the principal result of which is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function, or waste being prepared to fulfil that function, in the plant or in the wider economy. Annex II sets out a non-exhaustive list of recovery operations;
- **‘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;

New definitions in European Commission Circular Economy waste proposal

- **"final recycling process"** means the recycling process which begins when no further mechanical sorting operation is needed and waste materials enter a production process and are effectively reprocessed into products, materials or substances;