Measuring recycling objectively and fairly: The need for quality standards

Key messages
The debate surrounding the circular economy has highlighted the issue of how best to calculate waste which is actually recycled. EXPRA's research suggests that recycled waste should be measured **at the gate of the recycling plant.** This would help **avoid both compliance and practicality issues** relating to recycling reporting. In parallel, **specific quality standards for waste materials should be introduced at EU level** so as to ensure that waste materials deemed as "recycled" have adequate quality attributes.

According to **Article 11a (1a) of the Commission's proposal amending Directive 2008/98/EC on waste**, recycling of both municipal and packaging waste should be based on the input to the actual recycling process, i.e. after a number of preliminary operations occurring within the recycling plant. The European Parliament's Rapporteur has endorsed this position as the only measurement.

Should the latter be applied, recycling would need to be calculated after a number of preliminary operations occurring within the recycling plant. In practice, this proposal poses significant **consistency and quality challenges to recycling calculation and reporting**:

- At this stage of the process, the **exact data is often not available**. This is due to the fact that the waste, which has often undergone **several sorting processes**, has been **mixed with waste from other streams**. Hence, municipal and industrial waste may be mixed, and waste from different Member States may be mixed, when it reaches the actual recycling plant. Consequently, recyclers' measurement at this stage would reflect a purity level equating to the **weighted average of all incoming mixed waste**. This is negative for the cleaner batch and positive for the dirty batch, the weight of which will need to be adjusted accordingly (and unfairly(.

- Furthermore, some Member States do not have their own sorting and recycling plants. These countries are **exporting the recyclable waste for treatment**, which makes it even **more difficult to trace** it for the authorities. This situation also applies to waste that is **traded**.

- **Producer Responsibility Organisations** (PROs), which are the accountable organisations for recycling target compliance on behalf of the producers, have to report on both waste materials per waste stream and per country. **This data can only be ascertained until the gate of the recycling plant**, i.e. before the waste batches are mixed within it, **in order to deliver reliable statistics.**

Following our own assessment of the effect of changing the current recycling calculation on the circular economy, we believe that **recycled waste should be measured at the gate of the recycling plant**.

At the same time, EXPRA is fully aligned behind the need for ensuring that waste materials that are accounted for as recycled have adequate **quality attributes**. This is why we are also proposing that, in parallel, **specific quality standards for waste materials** be introduced at EU level, building on current national best practice.

It must be noted that recycling quality is less dependent on where it is measured, but more on the waste materials' attributes which standards can effectively reflect. The latter are moreover relevant to identify those waste materials that may not be recycled after all and that should not be accounted for in recycling reports. Within our proposal of checks against quality specifications, these potentially-lost materials would be identified upfront and could be already accounted for as impurities as they enter the recycling plant.

ANNEX: Further information

The problem explained

Should the recycling point be established within the recycling plant, the PRO would be bound to report the waste weight after certain preliminary operations (such as cleaning, sorting, among others), occurring within the recycling plant, to the entity that has the legal role to report on the attainment of recycling targets. This would lead, inter alia, to the following shortcomings:

- *Consistency and quality concerning the measurement*. Waste batches are not treated separately but often mixed within the recycling plant. It is therefore likely that the recycler deals with different sources of incoming waste (the latter differs in terms of waste holder, geographical origin, level of purity/quality, among others). Consequently, recyclers' measurement at this stage would reflect a purity level equating to the weighted average of all incoming (mixed) waste. This average would then be reported, by the organisations/waste holders bound by legislation, to their authorities supervising the attainment of the recycling targets.

- *Difficulties stemming from various recyclers taking part in a recycling process*. It is moreover possible that recyclable waste of the same material (e.g. plastic) is left out during the recycling process undertaken by a specific recycler: this would, for instance, be the case of coloured PET if the recycler can only use clear PET. Within this example, coloured PET can be eventually recycled, but will not be reported as recycled unless it is taken to the next recycler. The latter would then need to identify where this waste came from, and report the weight of recycled weight to the respective waste holders. This is an extremely complex and difficult procedure, sometimes even not doable in practice, thereby adding a layer of complexity to targets' attainment.

- *Difficulties related to waste trade.* Recyclers have the possibility to trade their incoming waste. If they do so, the responsible organisations would be required to know if their waste has become part of the traded batch, and would have to follow it through to the recycler that has actually purchased the batch.

How to ensure quality of the waste that is counted for as recycled

Thus far, the Commission's Decision 2005/270, currently in place, aims to avoid "significant losses" within the process. This has been considered ambiguous as it neither describes who defines what "significant losses" are nor how these should be determined and published.

In a bid to fill this gap, some Member States have allowed for EPR systems to follow mutual quality conditions. This is the case of the Netherlands, where the EPR system operates on the basis of a dedicated packaging agreement between producers and importers, the municipalities as well as the Ministry of Infrastructure and the Environment. Said agreement comprises a set of packaging guidelines and a monitoring protocol containing a number of specifications (e.g. maximum level of impurities, humidity, absence of certain materials).

The German packaging EPR system also relies on quality standards for sorted packaging waste, as defined under the so-called DKR-specifications. These quality standards are partially based on the European Standard EN 15347. The latter describes what characteristics should be mandatorily recorded, documented and communicated when supplying plastic waste to another party. Facultative characteristics to be recorded, documented and communicated are moreover listed.

The quality specifications define minimum levels and/or descriptions for the following characteristics:

- Waste specification/description;
- Minimum purity level;
- Permitted impurities, and a total maximum impurity level;
- Impurities that are not permitted;
- Delivery form: size, weight, packaging (baled or bulk), storage condition and identification type.

Our proposal

EXPRA suggests shifting to a recycling calculation system whereby the measurement takes place at the gate of a recycling plant while quality standards bring about recycling quality and improve the transparency of recycling processes, thereby avoiding compliance and financial risks for PROs.
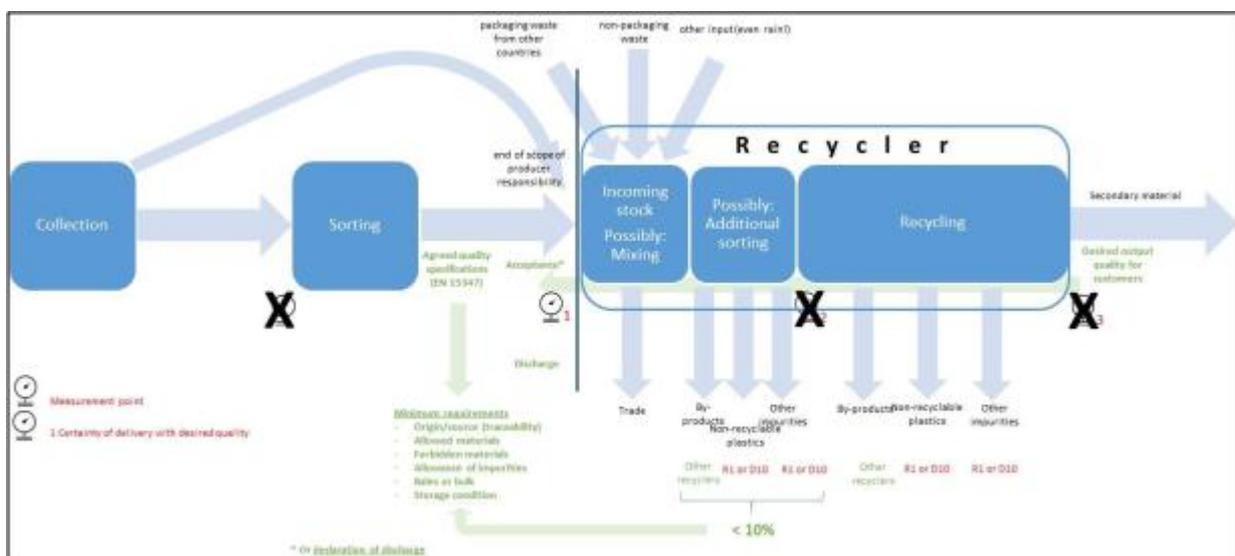
The solution comprises the following elements:

1. Multi-stakeholder **agreement on standards** that describe how to define quality criteria (such as e.g. EN 15347), based on the needs of secondary raw materials' users and the possibilities of the suppliers of the (packaging) waste.
2. **A system with batch inspection** and acceptance of (packaging) waste delivered based on a previously, mutually- agreed quality level. This quality level should be as much as possible driven by the needs of secondary materials' users.
3. **Written documentation** and exchange of acceptance of (packaging) waste.
4. Openness to regular and **irregular verifications by EPR systems / PROs** and competent authorities.

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