Key recommendations for the development of further EU-wide end-of-waste (EoW) criteria

We welcome the European Commission’s intention to develop further EU-wide end-of-waste (EoW) criteria and to launch a consultation to stakeholders about which waste streams should qualify.

The EU Waste Framework Directive (WFD) article 6 sets four key criteria for national end-of-waste status. However, their implementation varies significantly across EU Member States, as shown in the European study on by-products and end-of-waste. Several court cases have helped clarifying them.

Together with improved enforcement, further harmonisation at EU level of end-of-waste criteria is important to help reduce legal uncertainties regarding waste treatment and different interpretations between Member States, fight against environmental crime such as waste trafficking, and increase the safe use of high quality secondary raw materials. This can also help better measure and track the actual amounts of waste being collected and recycled.

We believe that setting a candidate list for EU-wide EoW criteria should not only be based on quantitative criteria, such as the demand for (potential) secondary raw material or the amount of waste shipment/generated, but also on qualitative criteria reflecting the risks to human health and the environment. Material streams presenting obvious risks for human health and the environment should only be prioritised for EoW potential status if there is evidence that they can be properly decontaminated through established processes, not leading to further re-injection of associated risks in the economy.

In that perspective, special attention should be paid to substances of concern when defining EoW criteria for selected materials, as material streams complying with EoW criteria are de facto expected to be used in new products. Therefore, newly developed EoW criteria should be in line with the Chemicals Strategy for Sustainability which clearly defines substances of concern as those which are problematic in a circular economy, i.e. substances that have a chronic effect on human health or the environment (Candidate list in REACH and Annex VI to the CLP Regulation), but also those which hamper reuse and recycling for safe and high quality secondary materials.

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1 “Member States shall take appropriate measures to ensure that waste which has undergone a recycling or other recovery operation is considered to have ceased to be waste if it complies with the following conditions: (a) the substance or object is to be used for specific purposes; (b) a market or demand exists for such a substance or object; (c) the substance or object fulfils the technical requirements for the specific purposes and meets the existing legislation and standards applicable to products; and (d) the use of the substance or object will not lead to overall adverse environmental or human health impacts.”

2 Study to assess Member States (MS) Practices on By-Product (BP) and End-of Waste (EoW), Umweltbundesamt GmbH (EAA) and ARCADIS Belgium NV, 30/04/2020.
Recommendations for setting and prioritising in the new European EoW criteria:

1. End-of-waste criteria should ensure a certain quality of secondary raw materials, exclude hazardous properties, set strict limits for pollutants and limit the presence of foreign materials.\(^3\)

2. Waste that has ceased to be waste should not be used for energy recovery or incineration as this would cause adverse impacts on the environment and human health (e.g. solid recovered fuels and refuse-derived fuels).

3. EoW status should preferably be defined at EU level as national EoW status will de facto create a risk for misinterpretation by national authorities. If national EoW status are made possible, they should be reported to the European Commission for scrutiny and also to all other national Member States, thus enabling mutual recognition. Each state would assess whether they can recognise the other national EoW status.

4. As a priority for defining EoW at EU level, we suggest the following material streams: a selection of construction and demolition waste (notably concrete and insulation materials), plastics waste with key conditions for non-hazardous contents, used paper, and possibly some non-ferrous scrap metal (with strict conditions for non-hazardous contents and for the quality of the EoW material).

5. A specific status should be explored for ‘preparing for re-use’ activities. When compared to recyclables, waste products collected to be prepared for re-use will not go through the same processes as they do not hold the same risks in terms of impact on the environment. Preparing for re-use is also higher in the EU waste hierarchy than recycling. Further reflection on how to promote preparing for re-use should thus be carried out at the EU level, e.g. by building upon the Austrian EoW criteria\(^4\), while ensuring no waste loophole is created. This should be done in consultation with representatives of the ‘preparing for re-use’ (mostly small) operators, the industry and civil society organisations.

Recommendations for the development of EoW criteria:

- Wastes containing hazardous substances and/or with hazardous properties should be excluded from the EoW status – without any derogation for plastics waste, such as Y48, PVC, PC, PS and PUR, including fractions of plastic waste.

- Waste that has ceased to be waste shall comply with EU legislation without any exemption, such as with the strict emission controls of the EU Industrial Emissions Directive 2010/75/EU (including BAT conclusions for waste treatment), in particular for their releases of heavy metals and organic pollutants, or with the REACH and CLP Regulations (as substances of their own as a mixture containing two or more substances, or as an article).

- EU-wide traceability requirements on waste that has ceased to be waste should be set:
  - If national EoW status applies (under the conditions above), national databases of waste streams with an EoW status should be set, if not already created, and include

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\(^3\) This may also help to “meet the condition regarding the sameness of the recovered substance”, as explained in ECHA Guidance on waste and recovered substances, May 2010, section 2.2.2.

\(^4\) Reuse of products Guide to determining the end-of-waste status in the preparation for reuse.
information on the inspections and tests performed. All these databases should be made publicly available.

- **Reporting requirements** from Member States to the European Commission through Eurostat should also be enlarged to EoW production and usage.

- The European Commission should monitor EoW compliance, especially to verify that transboundary movements of EoW do not open a loophole in the Basel Convention and the EU Waste Shipment Regulation.

- **Operators should report data** on the production of EoW materials and on the quantities ceasing to be waste according to the defined European EoW criteria in order to better assess the uptake of EoW criteria – and recycled materials – in the future.

  - The decision as to whether a material fulfils EoW criteria should not be based on a self-assessment by the operator but should follow a transparent assessment procedure under the supervision of a national authority, including the consultation of civil society organisations.

**Specific case: plastics and recycled rubber granule**

Plastic EoW status should only be granted to plastics with a very low/nearly zero level of contamination by impurities (i.e. non-targeted materials), without any hazardous substances and without being mixed with materials that make them ‘materials deserving special consideration’ (Y48 status under Basel convention, and future equivalent EU status under the EU Waste Shipment Regulation 1013/2006). This should also be accompanied by strict safety rules on plastic recyclates and effective harmonised testing to determine the presence of such impurities, hazardous substances and additives. The need for such testing should be gradually optimised in the future through a wide adoption of products and material passports, provided that a full list of chemical substances is made available to the relevant stakeholders in the value chain.

On the other hand, recycled rubber granules contain heavy metals and PAHs. They pose both health and environmental risks, especially when unintentionally released as microplastics. Taking this into consideration, the precautionary principle should apply and the EoW status should not be granted to rubber granules from end-of-life tyres.

**Specific case: Construction & Demolition Waste EoW Criteria**

Construction & Demolition is the largest waste stream by volume in the EU. It represents about 30% of the total waste generated. Therefore, there is great potential to turn this waste into products. However, in order to support the reuse of suitable products and materials in the built environment, clear links must be made with functionality, safety, health and environment.

The following list briefly describes recommendations to be further explored for the development and implementation of EU-wide end-of-waste criteria for Construction & Demolition Waste (C&DW):

**General product category criteria:** Criteria should be developed for each product category to assess the performance of a product at end-of-life, as well as for screening criteria for reuse in a future application (e.g. concrete and bricks, insulation materials). Additionally, criteria for the use of waste as an intermediary material or production input should be identified in order to support circularity across product categories where suitable, for example reused aggregates and supplementary cementitious material for cement production. EoW criterion should be set so that re-use and preparation for re-use of products and materials are prioritised over recycling and downcycling. In this
way, the highest possible performance of core functionality requirements is maintained, and value retention of used materials is enabled.

**Non-toxic built environment:** As part of these criteria, characterising the substances contained within C&DW is important. EoW criteria should help impose more effective sorting and separation of different waste streams, preferably in situ, which will support the most effective reuse and/or recycling of C&DW. The recirculation of materials containing substances of concern should not be allowed and should not go unchecked.

**Inscribing EoW criteria into product and waste legislation:** EoW criteria for construction products should be compatible with requirements set for construction products under the EU Construction Product Regulation (CPR), so that EoW construction materials can be used in construction products and works (e.g. building renovation). In the future, the revised CPR could include clear EoW provisions to enable their safe and sustainable use.

**Cross-border trade of end-of-waste products:** Until EU-level EoW status for products and/or buildings are in force, mutual recognition for national EoW status shall be required to allow any cross-border movement of EoW materials. This EU wide status for EoW should always meet at least the most demanding EoW criteria set previously at national level to enable proper intra EU trade.

**Traceability requirements:** In addition to the EU-wide traceability requirements for any material granted EoW status, ensuring that this information is connected and traceable through multiple use-cycles is also crucial. For C&DW EoW, this relates to building-level passports that may help assessing the best options regarding the end-of-life stage products they contain (e.g. can materials and products that were in a building be good candidates for EoW status? Can products and materials already made of secondary raw materials, including EoW, be fit for a new reuse/recycling cycle, a new EoW status?).

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**Contacts:**

ECOS – European Environmental Citizens’ Organisation for Standardisation  
Fanny Rateau, fanny.rateau@ecostandard.org

EEB – European Environmental Bureau  
Stéphane Arditi, stephane.arditi@eeb.org

**Co-signatories:**