End of Waste Criteria to achieve a Toxic-Free Circular Economy in the EU

Key principles and safeguards for clear, consistent and enforceable criteria anchored in the protection of human health and the environment

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About Rethink Plastic

The **Rethink Plastic Alliance** is a coalition of leading European NGOs advocating for ambitious EU policies to tackle the growing crisis of plastic pollution. It brings together the **Center for International Environmental Law** (CIEL), **ClientEarth**, the **Environmental Investigation Agency** (EIA), the **European Environment Bureau** (EEB), the **European Environmental Citizen's Organisation for Standardisation** (ECOS), **Greenpeace**, **Seas At Risk**, **Surfrider Foundation Europe**, and **Zero Waste Europe**. Together, these organisations represent thousands of active groups, supporters and citizens in every EU member State working towards a future free from plastic pollution.

Summary

The development of End-of-Waste criteria can support the EU's transition to a circular economy. EU EoW policy must be driven by **transparency** and **traceability**, **clarity** and **enforceability**, and **non-toxicity.** This will enable **genuine circularity**, ensure **high protection of human health and the environment**, and support the **EU's leadership in high-quality waste-derived materials**.

Main Recommendations

- Set **clear EU-wide criteria**, with the EoW final point occurring after the recycling process.
- Set **strict contamination thresholds** for foreign materials as part of the EoW criteria.
- Have the **waste classification prevail** in case of doubt or varying classifications between actors. For exports from and imports to the EU, when a material or product is considered a waste by one entity and a product by another, the most protective status should prevail, i.e., it should be considered a waste and subject to the Waste Shipment Regulation.
- **Exclude certain input** from EoW eligibility, notably :
  - Materials listed under Annexes VIII and II of the Basel Convention
  - Inputs containing SVHCs, including heavy metals
- Set **strong traceability and control mechanisms** as they are crucial to support EoW criteria implementation and assessment:
  - Traceability along the process will support sustainability and safety, and help prevent toxic recycling and/or loops. Transparency and traceability mechanisms include the SCIP database and the Digital Passport Product.
  - Strong traceability will enable monitoring of the use of Harmonised System (HS) codes and trade flows, thereby supporting the identification of potential cases of misdeclarations.
  - Coordination between competent authorities responsible for EoW criteria enforcement and waste trade rules enforcement would help identify potential loopholes and cases of non-compliance.
- Further **prevent loopholes** by:
  - Supporting the creation of new commodity codes to differentiate HS codes for virgin and waste-derived materials, including virgin and waste-derived plastic pellets.
  - Closely monitoring trade with the UK, to avoid the UK becoming a transhipment hub for EU waste, and support the alignment of EoW criteria between the EU and the UK to prevent loopholes.

Introduction

To support its transition to a circular economy, the EU wants to boost the use of waste-derived materials, also commonly referred to as "secondary raw materials". To address the current lack of harmonised, clear regulatory frameworks for waste-derived materials and to facilitate trade and the uptake of these materials, the EU developed and continues to develop EU-wide End-of-Waste (EoW) criteria. These EoW criteria define when a waste ceases to be waste. EoW therefore operates as a legal switch, enabling the transfer of materials from the waste legislative framework into chemical and products legislation, with far-reaching regulatory, trade and enforcement consequences.

Setting EU-wide criteria aims to remove one barrier to the development of waste-derived materials markets and to support reductions in resource use in the EU. Yet, changing a material's classification from waste to product by granting EoW status has important legal implications. This is because, to protect human health and the environment, waste is more strictly regulated than products in the EU (e.g regarding information requirements or their transport, particularly across borders). **It is therefore essential that EoW criteria are clearly defined and enforceable, and consistent with existing EU legislation.**

Poorly designed criteria risk aggravating the lack of clarity and uncertainty, creating loopholes, allowing materials to unjustifiably escape the more restrictive waste regime and contributing to toxic loops. Poorly designed criteria would undermine EU legislation on chemicals, products and waste, and thereby reduce the overall level of workers' and consumers' protection, further erode trust in recycled materials, and work against the achievement of a circular economy. To prevent these risks, **EoW criteria should be harmonised, ensure non-hazardous and uncontaminated inputs, safe outputs, and a traceable value chain and trade, while working hand-in-hand with existing legislation to achieve a toxic-free circular economy**. This briefing presents a number of principles and safeguards that should be applied to ensure clear, consistent and enforceable EoW criteria anchored in the protection of human health and the environment.

Using fewer resources is a pressing issue of our times, especially as the seven planetary boundaries have already been breached.[1] The EU's material footprint is significantly above what the planet can sustain, and the EU's waste generation remains high. **Reducing environmental impact requires action across the entire product lifecycle:** designing products that are free from toxic chemicals, use fewer resources, last longer, and can be reused, while strengthening waste management through improved collection, sorting, and recycling systems, leading to an increased use of recycled materials. Taken together, these measures significantly decrease reliance on virgin resources and lower the resulting emissions and environmental harm.

Yet, there is currently limited trust in waste-derived materials (for many materials), which impacts their marketability, prices, and eventually, use. This is due to the lack of harmonised and clear regulatory frameworks, but also the lack of stable markets and doubts over the quality of the waste-derived

[1] Potsdam Institute for Climate Impact Research (PIK), Planetary Health Check 2025, 2025

materials, including contamination that may prevent use in certain applications.[2] Setting harmonised, clear and stringent EoW can help build trust in products made from recycled materials. **End-of-waste and circularity-enhancing policies should be accompanied by policies that support overall resource-use reduction and safety, ensuring waste-derived materials are used safely and sustainably instead of virgin resources, rather than on top of existing levels of virgin resource used.**

Article 6 of the Waste Framework Directive (WFD)[3] sets the framework for the adoption of EoW criteria and defines the general conditions for a waste that has undergone a recycling or other recovery operation to cease to be waste:

- the substance or object is to be used for specific purposes;
- a market or demand exists for such a substance or object;
- the substance or object fulfils the technical requirements for the specific purposes and meets the existing legislation and standards applicable to products; and
- the use of the substance or object will not lead to overall adverse environmental or human health impacts.

This article also empowers the European Commission to adopt EU-wide criteria, which shall ensure a "high level of protection of the environment and human health and facilitate the prudent and rational utilisation of natural resources". Glass cullet, copper scrap, and metal scraps, including iron, steel and aluminium, are already covered by EU-wide EoW criteria[4][5][6] EoW for other materials, like plastics and textiles, are currently under development and are the focus of this briefing.[7]

In addition, EoW criteria for certain products have been established in product-specific waste legislation, like in the Waste from Electrical and Electronic equipment (WEEE) Directive or the new End of Life Vehicles Regulation, to differentiate between products for reuse and waste products (for recycling or other treatment).

For products for which EU-wide EoW do not exist (like plastics until now), EoW criteria can be developed at the national level, or even at the sub-national level in the absence of national criteria. This creates a patchwork of criteria, leading to the same materials having different legal statuses (as waste or product) depending on the EU country or even within one country, depending on the regions. It undermines the internal market for recyclates and it creates legal uncertainty and investment risk for recyclers, while making control more complex for authorities. Effectively designed and

[2] European Environmental Agency, *Investigating Europe's secondary raw material markets*, 2023

[3] Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives

[4] Commission Regulation (EU) No 1179/2012 establishing criteria determining when glass cullet ceases to be waste under Directive 2008/98/EC of the European Parliament and of the Council

[5] Commission Regulation (EU) No 715/2013 establishing criteria determining when copper scrap ceases to be waste under Directive 2008/98/EC of the European Parliament and of the Council

[6] Council Regulation (EU) No 333/2011 establishing criteria determining when certain types of scrap metal cease to be waste under Directive 2008/98/EC of the European Parliament and of the Council

[7] Proposal Commission Implementing Decision laying down rules for the application of Directive 2008/98/EC of the European Parliament and of the Council as regards criteria to determine when plastic waste ceases to be waste

implemented EU-wide EoW can address those issues and support circularity across Europe. Simultaneously, it supports the development of a European recycling market.

Key principles for End-of-Waste criteria at the service of genuine circularity

Based on the WFD objectives and provisions, and to support Europe's transition to a genuine circular economy, the EU should develop EoW criteria that are harmonised, enforceable and anchored in health and environment protection, applying the following principles:

- **Harmonise at the service of protection:** setting EU-wide EoW criteria can end legal uncertainties, help address misdeclaration of waste arising from differences in categorisations between countries, and facilitate the trade of waste-derived materials within the EU. Yet harmonisation should not come at the cost of protection, with a race to the bottom. Article 6.2 of the WFD provides that when developing EU-wide criteria, the European Commission shall take into account the relevant criteria established by Member States, favour harmonisation at the top, i.e., follow the most stringent approach, and ensure a high level of protection of the environment and human health. In short, harmonisation should lead to more protection of human health and the environment, not less.

- **Ensure clarity in definitions:** Article 6 of the WFD requires the adoption "of detailed criteria" and lists the elements that must be included. This is important for supporting clarity and, therefore, enforcement, and preventing interpretations or loopholes that could lead to misclassifications. This includes clarity on the EoW final point, which, importantly, should occur after the recycling process. In addition, it is important to clarify the distinction between product reuse in a system, EoW for product preparation for reuse, and EoW for waste-derived materials after recycling. It is critical, for example, in the textiles stream to appropriately distinguish used textiles and textile waste and to ensure used textiles will actually be reused in case of exports.

- **Guarantee compliance with EU product and chemical legislation**: Article 6.1(c) of the WFD requires that the object or substance "meets the existing legislation and standards applicable to products" to be granted EoW status. The output material from the recycling or recovery operation can only cease to be waste if it complies with all relevant EU chemicals and product legislation, including, but not limited to, Regulation on the registration, evaluation, authorisation and restriction of chemicals (REACH), Classification, Labelling and Packaging (CLP) Regulation, Regulation on persistent organic pollutants (POPs) and the Ecodesign for Sustainable Products Regulation (ESPR). The same quality standards should apply to both virgin and recycled materials to ensure there is no additional risk when waste-derived materials enter the supply chain and to support trust in recycled materials and the long-term circular economy. Considering that testing of the output is costly, it is essential to ensure the high quality of the input by removing hazardous chemicals from the (virgin) material and product design and manufacturing, facilitating clean waste streams, including through separate collection and Deposit Return Scheme (DRS).

Transparency mechanisms that ensure that information (notably on chemical composition) flows along the life cycle of products and recycling chains, also supports reducing cost for testing.

- **Uphold waste hierarchy enshrined in EU law:** EoW criteria must reinforce, not weaken, the EU waste hierarchy. Priority must always be given to prevention, preparation for reuse, and reuse over recycling and recovery. EoW status should never incentivise the downcycling of materials that could remain in higher-value use. In line with the WFD, EoW policy should explicitly state that outputs cannot be used for energy recovery or backfilling, as such uses do not constitute recycling. The objective of the policy must be to retain material value for as long as possible, maximise genuine circularity and avoid locking Europe into lower tiers of the hierarchy.

- **Guarantee a high level of protection of human health and the environment**: Article 6.1(d) of the WFD sets as one condition for waste material to cease to be waste that "the use of the substance or object will not lead to overall adverse environmental or human health impacts". The non-toxicity of the output to the environment and human health must be demonstrated (and cannot be assumed) in line with the precautionary principle.
    - Knowing that most recycling technologies cannot fully decontaminate waste, the EU should exclude specific inputs from EoW eligibility, as the non-toxicity of the output cannot be demonstrated. This includes inputs containing substances of very high concern (SVHCs), heavy metals and materials listed under the Basel Convention Annexes VIII (hazardous waste) and II (waste requiring special consideration).
    - In addition, a strict contamination threshold for foreign materials should apply to the output, aligned with or lower than the existing thresholds for waste exports.

Key safeguards

To support the implementation of the principles above and the development of EoW in line with the WFD, the following safeguards should be applied.

Prevent waste trade loopholes: Granting EoW status removes materials from the scope of EU waste-shipment controls, including the Waste Shipment Regulation (WSR) and obligations under the Basel Convention. The revised WSR strengthens restrictions and is based on the well-documented harms associated with waste trade, notably plastic waste trade, to human health, the environment and waste management infrastructure in recipient countries. Yet, if not carefully designed, there is a significant risk that EoW criteria could be exploited to misdeclare waste as a product (i.e. waste granted EoW status), thereby allowing operators to circumvent the upcoming default ban on any EU waste exports to non-OECD countries (from late 2026),[8] as well as take-back obligations, data transparency and financial guarantees. It is therefore critical that **EoW and waste trade policies work hand-in-hand to prevent legislative loopholes, support genuine circularity and ensure a high level of protection**.

[8] In line with the Waste Shipment Regulation, non-OECD countries can request to receive EU waste except for plastics until at least 2029. .

This requires the following:

- Set strict contamination thresholds for foreign materials as part of the EoW criteria, ensuring they are lower than or equal to the contamination threshold for the exports of the corresponding waste. This would prevent the incentivising of misdeclarations of waste as products and limit the negative impacts in the event of misdeclaration. As an example for plastics, a ≤ 0.5 per cent contamination threshold has been applied in several geographies, including Hong Kong and China, before the National Sword Policy.
- Exclude hazardous waste and waste requiring special consideration under the Basel Convention (respectively Annex VIII and Annex II) from inputs eligible for EoW status.
    - The trade of hazardous waste and waste requiring special consideration, including hard-to-recycle waste due to the presence of hazardous constituents, is strongly regulated at the international and EU level due to the associated impacts on human health and the environment, as well as on waste management infrastructures and the recycling capacity, in the recipient countries. The trade of such waste is subject to the Prior Informed Consent (PIC) procedure under the Basel Convention. In addition, the EU has imposed a default ban on all waste exported to non-OECD countries (i.e., a ban on exports unless requested and requirements are met), as well as PIC procedures for exports to OECD countries (provided requirements are met).
    - Considering that (most) recycling processes do not allow for full decontamination of the waste, outputs of the processing of waste classified under Annex VII and Annex II of the Basel Convention should not be granted EoW status as they do not comply with the requirement under Article 6 of the WFD to “not lead to overall adverse environmental or human health impacts”. Allowing derived materials from such waste to be considered and exported as a product (and so without any of the conditions associated with the trade of waste) would strongly undermine the very objective of waste trade regulations to protect human health and the environment. It would feed toxic streams of waste-derived materials, hinder trust in recycled materials, and so be a barrier to genuine circularity and undermine the objectives of the EoW policy.

Input restriction: To guarantee a high level of protection of human health and the environment in line with Article 6 of the WFD, and considering that output testing is very costly and that (most) recycling processes do not allow for full decontamination of the waste, it is more efficient and effective to restrict inputs eligible for EoW status.

- Certain inputs should not be eligible for EoW due to their hazardous nature, including materials listed under Basel Convention Annexes VIII and II and waste containing substances of very high concern.
- Establishing positive lists of authorised inputs can, as relevant, support genuine circularity. A number of Member States have used that approach for certain waste streams.

Contamination and product quality:

- A strict contamination threshold should be set, as mentioned above

- The same quality standards should apply to virgin and recycled materials. Focus and priority should be put on detoxifying materials and products in the first place from the design and production stage; this will ensure a high level of protection, support circularity and be much more (cost) effective than decontamination at a later stage (if even technically possible).[9] [10]

Process restriction:

- When defining an EoW criteria, processes to be considered should be classified under Technology Readiness Level (TRL) 9, meaning that the process is proven to work in an operational environment. This ensures that waste can, in practice, be recycled at scale within the Union.
    - In line with Article 3(17) of the WFD, defining recycling, material shall not be granted EoW status if it is intended for energy recovery or fuel production. In addition, EoW criteria must be designed in a way that promotes high-quality recycling into products that replace virgin materials.

Traceability: Setting a traceability mechanism is essential to ensure information is available along the process (from product to waste to waste-derived materials to product with waste-derived materials, etc), support trust in - and uptake of - the waste-derived materials, and so enable a functioning toxic-free circular economy protecting health and the environment. Those traceability mechanisms could build on existing frameworks (i.e. SCIP Database and digital product passport as the ESPR is implemented), and the information should be made publicly available.

Monitoring and control:

- Control on compliance with EoW criteria is essential to ensure genuine circularity and protect human health and the environment. Controls on products and waste are currently insufficient, and resources are scarce. Self-monitoring has serious limitations and cannot be the sole control mechanism. Third-party certification and regular monitoring should be implemented.
- Acknowledging that controls over outputs are needed yet costly and that resources are limited, it is more efficient and effective to strongly regulate the inputs allowed (as described above) to prevent toxic loops, supported by traceability mechanisms. While recycling may occur where actors bear the costs of testing and compliance, limited enforcement capacity, minimal decontamination, and weak incentives for product redesign justify maintaining a precautionary approach.
- In addition, Member States should set sanctions for cases of non-compliance with the EoW criteria at levels that are truly deterrent. Experience in the waste trade shows that companies have developed sophisticated systems to appear legitimate, and sanctions for illegal waste trade are way too low and limited.[11]

[9] According to the Forever Lobbying Project, the cleaning of all the PFAS contamination in Europe would cost upwards of €2 trillion over a twenty-year period, the accumulation of a €100 billion annual toll.
[10] According to a publication from the European Thyroid Journal, the costs related to chemical exposure and neurodevelopmental disease and IQ loss in the EU may reach EUR 157 billion per annum.
[11] Environmental Investigation Agency, *Dirty Deals- Part One - Evidencing illegalities in the global plastic waste trade*, 2024.

The case of the End-of-Waste criteria for Plastics

Plastics illustrate both the opportunity presented by EoW policy and the danger posed by poorly designed EoW criteria. More than 16,000 chemicals are used in the production of plastics, of which more than 4,000 are of concern due to their high hazards to human health and the environment.[12] The high presence of chemicals, usually acting as contaminants within the recycling process, makes many plastics hard to recycle, and most are downcycled or shipped abroad for "recycling". This situation creates particular challenges for toxic-free circularity. Without clear, enforceable EoW rules, the EU risks turning waste management practices into a black box, turning recycling into a vehicle for contaminated loops and pollution, while supporting (illegal) exports of waste abroad.

Challenge: Plastic recycling rates vary significantly across the EU, by polymer type and final application. Many plastic waste streams remain heterogeneous and contaminated, with various levels of recyclability, a high presence of hazardous chemicals and frequent contamination. Many plastics are technically hard-to-recycle, highly degraded during recycling processes, and most are downcycled with fewer subsequent recycling options (e.g., PET to textiles).[13] As a consequence, the quality of the recyclate is low, which is reflected in the (low) trust placed in this material. At the same time, there is high competition for higher-quality recyclates (e.g. PET collected through DRS). This situation is worsened by the low cost and high volatility of primary fossil-based feedstocks, which are additional barriers to the development of the recycled plastic market and further reduce the economic case for recycling plastics in Europe. Additionally, the lack of traceability and harmonised EoW further hinders the internal market for recyclates in the EU.

Today, Europe's recycling industry faces many challenges, increasing the EU's dependency on imported recycled feedstock, driven by a cost-effectiveness approach to meet the minimum recycled content mandated by EU law for several products. This situation is far from the aimed circularity. EoW criteria for plastics can address these failures, yet only if they establish a high-integrity framework that guarantees clean inputs, safe outputs and traceable trade. A traceable, transparent recycled content should be the EU's competitive advantage globally.

Opportunity: The European Commission has put forward EoW criteria for plastics at the end of 2025 that will need to be fully adopted by Member States representatives.The Rethink Plastic alliance overall welcomes the proposed EoW criteria and recommends strengthening criteria related to eligible inputs and control mechanisms to ensure genuine circularity.

Design eligibility:

The Rethink Plastic alliance supports that only outputs from mechanical or solvent-based recycling processes can be eligible to EoW status, as the main goal when establishing an EoW for plastics is to enhance the circularity of the plastic sector.

- The EoW should apply only to outputs from plastic-to-plastic recycling (without chemical modification) used to produce new plastic products. This answers the first requirement of Article

[12] Martin Wagner, Laura Monclús, Hans Peter H. Arp, Ksenia J. Groh, Mari E. Løseth, Jane Muncke, Zhanyun Wang, Raoul Wolf, Lisa Zimmermann, *State that are of the science on plastic chemicals – Identifying and addressing chemicals and polymers of concern*, 2024

[13] Eunomia, *How circular is PET?*, 2022

6.1(a) of the WFD, setting as a condition that "the substance or object is to be used for specific purposes".
    - Only pellets and flakes from the recycling process to be used in the production of new plastic products can be granted EoW status.
    - The output of chemical recycling technologies is generic and can be used as a feedstock for various processes and applications. Therefore, it does not meet the conditions for EoW status.
    - Plastic lumps should also not be eligible as output material for EoW: they are too unspecific, pose high contamination risks, and require further treatment before being used in the production of new plastic products.
- The EoW point should be set after the recycling process, when the output is ready for re-melting and use in the direct production of plastic products or objects made of plastic.
    - The system boundary is holistic and the same across all technologies, with outputs that have similar applications, enabling comparison of different processes in terms of the quality and quantity delivered.
    - The recyclate produced meets customers' requirements for the final application and is flexible enough not to limit the use of recycled plastics to a specific sector or type of plastic product.
    - It prevents the use of plastics as inputs for purposes other than plastics, thereby going against the sector's circularity goal (i.e., fuel production or energy recovery).

The case of Chemical 'Recycling'

- The EU legal framework on recycling is general and does not distinguish among different types of recycling activities. It does, however, clearly exclude certain activities, such as the production of fuel and energy recovery. In this context, it is important to recall that there is no agreement among stakeholders on the definition of chemical 'recycling', an umbrella term that encompasses very different processes with different environmental impacts and efficiency rates. The **Rethink Plastic alliance, together with other representatives of civil society, considers pyrolysis and gasification recovery processes, and not recycling.**[14]
    - This position is linked to processes that convert waste into a mixture (i.e., pyrolysis oil and syngas), a large portion of which is used for fuel production. This goes directly against the definition of recycling from the WFD.[15]
    - From a climate perspective, it is important to recall that the negative environmental impact of pyrolysis and gasification can be between 10 and 100 times higher than that of virgin polymer production.[16]

[14] DUH, ECOS, ZWE, *Chemical Recycling and Recovery – Recommendation to Categorise Thermal Decomposition of Plastic Waste to Molecular Level Feedstock as Chemical Recovery*, 2021

[15] According to Article 3 (17) of the WFD, '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

[16] Uekert T., *Technical, Economic, and Environmental Comparison of Closed-Loop Recycling Technologies for Common Plastics*, 2023

  - Not only is the climate impact a cause for concern, but these processes are also highly inefficient. One industry estimate of the oil yield from pyrolysis of plastic waste is 22 per cent.[17] The pyrolysis-based process requires a steam cracker to produce plastics. However, due to the chemical composition of pyrolysis oil, a high dilution (up to 95 per cent) with petroleum naphtha is needed to respect the steam cracker requirement.[18] In other words, even in the best-case scenario, only 2 per cent of the plastic waste fed into pyrolysis will actually make the round trip into the steamcracker, and at worst, less than 1 per cent of plastic will be recycled.[19]
- In addition, when looking into the environmental and health impact of chemical 'recycling', especially through life cycle assessment (LCA), it is worth noting that impacts tend to be underestimated due to weaknesses, including:[20]
  - Overlooking key life-cycle stages. including generation and disposal of hazardous waste and the extensive purification required to treat the complex, contaminated chemical mixtures produced by pyrolysis, gasification, and solvolysis.
  - Assumptions that pyrolysis output can substitute virgin fossil fuel products at a ratio of 1:1.

Input restrictions:

- According to the EoW criteria for plastics proposed by the European Commission[21], almost all inputs are eligible for EoW status, including waste containing hazardous substances or POPs at concentrations above the regulatory limit values, provided that the output materials comply with EU chemical and product legislation. Yet, considering that (most) mechanical and solvent-based recycling processes do not allow decontamination and that output testing and control are costly, accepting all input and focusing only on outputs' compliance would prevent toxic-free recycling, impacting both human health and the environment, as well as trust in recycled plastics and, consequently, their uptake. The alliance considers that more stringent criteria should be set for eligible input: a positive list for eligible plastic waste inputs could be an option, in line with the approach chosen by some EU Member States (Estonia, Finland, Portugal and Spain).
- At the very least, plastic waste listed under Annex VIII (hazardous waste) and Annex II (special considerations, hard to recycle) of the Basel Convention should not be accepted as input for EoW status. This includes all plastics listed under Y48 (Annex II), including PVC and PTFE. Recognising the significant impacts of the trade in plastic waste, the EU decided to ban all exports of plastic waste from the EU to non-OECD countries and subject potential exports to OECD countries to stringent requirements. This calls for a particularly cautious approach to EoW status for plastics to ensure EoW policy does not create loopholes in plastic waste trade restrictions under EU and international obligations, which would indirectly facilitate illegal activities and significantly undermine human health and environmental protection.

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[17] EUWID, *Veolia executive questions the environmental benefit of chemical recycling for plastic waste, Recycling and Waste Management*, page 3, 2022

[18] Rollinson A., *Leaky loop recycling: A technical correction on the quality of pyrolysis oil made from plastic waste*, 2023

[19] Rollinson A., *'Dual-use output' issues for accounting recycled plastic content*, 2024

[20] Singla V, *Major gaps in chemical recycling life cycle assessments (LCAs)*, 2025

[21] Proposal Commission Implementing Decision laying down rules for the application of Directive 2008/98/EC of the European Parliament and of the Council as regards criteria to determine when plastic waste ceases to be waste

Contamination and quality standards:

- Plastics and plastic waste are highly traded commodities, so strong mechanisms should be put in place to ensure the quality and traceability of the output granted EoW status.
- Particular attention should be given to the presence of hazardous chemicals and NIAS, as well as to the level of microplastics emissions.
- Also, a contamination threshold should be strictly enforced. Despite some progress in separate collection, plastic waste is often contaminated with other waste types. While we welcome that the 1.9 per cent threshold for foreign materials proposed by the European Commission is below the threshold for waste trade, we would recommend a stricter threshold (0.5 per cent).

Traceability and certification:

- Each batch of EoW plastic must be traceable from input to output. Traceability mechanisms that already exist or are being developed, including for certain sectors in the context of the ESPR and the Digital Product Passport, could be used and/or complemented to prevent duplication.
- Self-monitoring has serious limitations and cannot be the sole control mechanism. The mandatory establishment of certified quality management systems is needed to support compliance and control. The verification and (renewal of) the certifications should take place on a regular basis (maximum every 3 years) to ensure quality and support continuous compliance.
- Integration with trade and enforcement systems, including continuation of participation in EoW IMPEL with customs authorities and environmental inspectors, is essential.
- Technology investment is also needed to support traceability and control.

Policy Alignment: Only a few Member States - Finland, Spain, Portugal and Estonia - have adopted national legislation or positive-list approaches defining when waste-derived plastics can cease to be waste. Others continue to rely on discretionary approvals by competent authorities, often using divergent contamination thresholds, testing methods and verification systems. This uneven implementation has significant implications. It undermines the internal market for recyclates, creates enforcement gaps at borders and enables regulatory arbitrage, where materials rejected in one jurisdiction may circulate as products in another. For recyclers, it creates legal uncertainty and investment risk; for authorities, it complicates inspection and data collection.

A harmonised EU approach is therefore essential. EU-level EoW criteria would provide a single standard for recyclate quality, ensure alignment with chemicals and product legislation, and prevent circumvention of waste-trade controls. They would also strengthen coherence among the WFD, the WSR, and the ESPR, ensuring that waste-derived materials are safe, traceable, and used within a closed regulatory loop.

The case for End-of-Waste criteria for Textiles

Textiles are one of Europe' biggest and least regulated waste streams. Global fibre production has doubled in the last 20 years, and while product lifespans have shortened, the use of synthetic fibre has surged: synthetics now account for roughly 70 per cent of global fibre production, with polyester alone accounting for almost 60per cent.

Challenge: On average, each European generates around 16 kg of clothing and footwear waste per year, of which about three-quarters end up in mixed municipal waste[22]. Textile waste management represents a major challenge, with increasing textile consumption, decreasing overall product quality[23], limited and uneven separate collection mechanisms across the EU, and very limited recycling. Textiles contain hazardous chemicals: most textiles are synthetic and/or chemically treated, e.g through fibre extrusion, dying and printing. Chemicals found in textiles include PFAS[24], flame retardants[25] and chlorinated paraffins.[26] This puts human health at risk, including through direct contact, and makes recycling more challenging. In a 2025 study, the Netherlands' Human Environment and Transport Inspectorate (ILT) found that nearly half of all textiles placed on the EU market contain non-removable disruptive elements, making mechanical or chemical recycling impossible.[27] Most textiles also release microplastics across their lifecycle.

Also, with limited reuse and recycling within the Union, the EU increasingly exports its used textiles and textile waste to other countries, including in Africa, Asia and Latin America. The trade of used textiles has tripled in the last 25 years; in 2023, the EU exported 1,4 million tonnes of used textiles. Yet the fate of those used textiles remains uncertain once in the recipient countries, and there are well-documented[28] cases of mismanagement, including stockpiling, dumping and exports evading waste regulations under the guise of reuse.

Setting EU wide EoW criteria for textiles can bring clarity on the conditions under which discarded textiles can be considered fit for reuse (as used textiles) and the outputs after recycling can be considered waste-derived materials that can be used in new textile products (recycled content), and establish a clear distinction between the two to prevent the later to be inaccurately traded as the former. Such EoW criteria must be robust; otherwise, the EU risks weak oversight, cross-border dumping and toxic recycling under the guise of circularity.

The EU is in the process of setting such criteria. The JRC presented its draft technical proposals in December 2025 and these will be formally published in Q1 2026. Before the criteria can become law, the European Commission will need to adopt them through implementing legislation.

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[22] Data from the European Environment Agency, available here.
[23] https://www.eea.europa.eu/en/analysis/publications/textiles-and-the-environment-the-role-of-design-in-europes-circular-economy-
[24] WSP, *An assessment on PFAS in textiles in Europe's circular economy*, 2024
[25] IPEN *Toxic Loophole: Recycling flammability standards toxics into new products*, 2019
[26] Pinto, V.C.D. and Mizrachi, M.P. (2025). *The Health Impact of Fast Fashion: Exploring Toxic Chemicals in Clothing and Textiles*. *Encyclopedia,* 2025
[27] The study is available here
[28] Environmental Investigation Agency, *Falling Apart at the Seems*, 2025

Design eligibility

The specificity of the textile streams requires the adoption of two sets of EoW criteria: one for reuse, the other for recycling.

With regards to EoW criteria for reuse, the EoW point should be set after the sorting, yet acknowledging that this criteria alone will not ensure the textile granted EoW will effectively be reused[29].

With regards to EoW criteria for recycling, the EoW point should be set after the recycling process, when the waste-derived material is ready to be integrated into a new textile product. EoW status should only be granted to waste-derived materials used for textile production, as an actual textile article or to a fibre that is ready for direct conversion into a new textile product. Limiting the EoW status to fibre-to-fibre recycling is key to increasing the circularity in the textile sector, and in line with Article 6 of the WFD.

Input restrictions

Textile waste is largely contaminated, both because of the high presence of chemicals and because most textile waste is still not collected separately.

With regards to textiles for reuse, we recommend to:

- Harmonise sorting guidelines and quality grades per product category for products that are fit for reuse. Quality levels and minimum requirements should be set for each grade.
- Limit the content of a single bale to homogeneous items, in terms of the category of users (e.g., children's wear), product category (e.g., trousers, shirts), season of use, quality grading based on the harmonised grading system, size, and style; and label the bale accordingly. This will help address the challenges associated with a diversity of destination markets, including cultural habits and climate, and support importers in making conscious decisions about their purchases.
- Allow technical, healthcare, and workwear to fall within the reuse stream after receiving the necessary specific operations or treatments.

With regards to recycling, hazardous textile waste must not be eligible for EoW status.

Traceability and certification

- Each batch of textile materials granted EoW must be traceable from input to output. Traceability mechanisms for textiles developed under the ESPR could be used.
- EoW for reuse should be granted only after sorting and preparation for reuse have been completed by a certified operator who can certify that the textiles can be reused safely.
- The EU should require producers to publicly disclose the aggregated volume and number of products for which they have received complaints from users of used textiles, to monitor compliance with EoW criteria, and to identify potential cases of textile waste being sold as textiles fit for reuse.

[29] ECOS and EEB joint paper, *Redefining used textiles and textile waste End-of-waste criteria for reuse and a global EPR scheme,* 2025

Policy Alignment

End-of-waste criteria for textile waste should be accompanied by measures to end the oversupply of textiles, strong EPR regulations in line with the EU WFD, as well as stronger controls on the trade of used textiles and textile waste. Recognizing the mismanagement of textile waste and the impacts of exports in recipient countries, Parties to the Basel Convention, at the request of the EU, are paying particular attention to the trade of used textiles and textile waste through a call for evidence and considering how to better address the trade and management of used textiles and textile waste could be addressed under the Basel Convention.

Complementary Policy Measures

EoW policy is one tool in the toolbox to support strategic use of resources and toxic-free circular-economy objectives, centring on the need for greater transparency and traceability along the value chain. **EoW policy should be integrated into a wider sustainability and safety policy framework and work hand-in-hand with the implementation of other legislation**, including (but not limited to) the ESPR, PPWR, SUPD, and WSR and support the objectives of the Chemical Strategy for Sustainability.

Complementary measures include:

- Bans on single-use and/or avoidable applications, reducing overall resource use, including measures to tackle the oversupply of short-lived products.
- Development of reuse across a variety of sectors (packaging, electronics, construction, etc.), including through the enforcement of legal targets and the adoption of product-as-a-service schemes.
- Development of repair services, including in the EEE and textiles sector.
- Restrictions, including full bans, on the use of hazardous substances and substances of concern from materials and products to ensure safe use and support recycling.
- Strengthening of EPR schemes, so that they support improved waste collection, sorting and recycling, but also resource use reduction and reuse.
- Financial investments, including initial capital for reuse systems, product-as-a-service, and repair services, and traceability mechanisms.
- Fiscal measures to increase the cost of primary materials (including ending subsidies) and support the uptake of recycled materials.

Also, the **same quality standards should apply to virgin and recycled materials** to protect human health and the environment and to ensure trust in recycled materials. Focus and priority should be put on **detoxifying materials and products from the design and production stages.** This is a prerequisite to ensure a high level of protection, allowing non-toxic circularity, while being much more (cost) effective than decontamination at a later stage (assuming decontamination is technically possible). Substances of concern - including chemicals with chronic effects on human health or the environment, as well as those that hamper recycling - should be designed out of materials and products. Strict restrictions should be adopted on several groups of chemicals, including PFAS, bisphenols and phthalates.