Position Paper

July 2025

Policy Requirements for a Circular, Competitive and more Autonomous EU Chemical Industry

The role of the chemical sector in a circular economy

The chemical sector, often considered the mother of many other industries, envisions itself at the heart of Europe's future circular economy. By focusing on circularity in material & product design through longevity, reusability, repairability, recyclability, and revalorising low-value resources, the chemical industry provides innovative solutions that benefit both itself and downstream sectors like automotive, building & construction, electronics, textile, agriculture and retail. This helps downstream industries become more circular, positioning the chemical industry as a key player in fostering a circular society.

According to Cefic, a circular economy is defined as "*a systems approach involving industrial processes and economic activities along the whole value chain that are restorative or regenerative by design, aiming for a climate-neutral and/or resource-efficient economy by maintaining the value of products, materials, and resources as long as possible.*"

In the "Molecule Managers", a mid-century vision for Europe's future has been outlined, the possibility of achieving a so-called "super-circular economy" was introduced as a high-level visionary concept for 2050 in which chemistry plays a central place, along with a description of the steps to get there. Many additional steps are still necessary to reach that visionary perspective of circular economy. The EU Transition Pathway for the chemical industry highlights the importance of circular feedstocks. Cefic's Safe and Sustainable by Design guidance includes principles for designing safe and sustainable products, considering end-of-life and circularity aspects. The Antwerp Declaration emphasises the European economy as driver for circularity, the significance of the EU's raw material security and the need to boost demand for circular materials, proposing a Circular Carbon Strategy to meet the Green Deal's goals.

In 2025, the Cefic-UNITY study **"*Accelerating the Circular Transformation: Insights, Challenges, and Pathways for the Chemical Industry and Beyond*"** was released to showcase the progress made by the European chemical sector in the circular economy and to identify additional needs for further transitioning towards a circular economy.

A European circular economy in a global context

There is a clear understanding that circular economy plays an essential role beyond waste management and focusses on optimal resource use, as such being a critical element for the EU's strategic autonomy and raw material's security. The European Union has been committed to circular economy for a long time, with efforts reflected in the multiple policies that emerged from the Circular Economy Action Plan (CEAP). The CEAP introduced numerous initiatives, but the focus on quantity over quality led to challenges in implementation, as they were not always practical, implementable, feasible, enforceable, and achievable.

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In the current context, marked by Europe's relatively high energy prices, economic stagnation, and companies are increasingly moving their production assets outside the EU, the creation of a market for circular and sustainable products is essential. This will help make circular solutions competitive and keep/further strengthen this strategic industry in Europe. Circular economy projects face significant financial challenges due to a lack of competitiveness, regulatory clarity, and public funding support. These factors increase risk and worsen project economics, making the business case for investments unattractive. Alignment of all policies behind the EU's objectives is therefore crucial to deliver a thriving European chemical industry that is both circular and competitive.

Europe should also strengthen its strategic autonomy not only for critical raw materials but also for chemicals and plastics through incentivising European-sourced circular carbon feedstock or feedstocks complying with comparable standards in products placed on the EU market. This would strengthen the single market, the strategic autonomy and the competitiveness of Europe. It would also support the creation of a truly European circular economy by reducing the European waste problem and enabling viable business cases for European producers, including recyclers who are currently struggling due to the lack of demand for recycled materials.

Policy recommendations

Europe should consider and implement a holistic policy framework that enables circularity as a core pillar of Europe's strategic autonomy vision. The combined policies must be geared to restore a competitive and sustainable industry and implement the critical success factors that enable circular markets to flourish. This will deliver the business case to innovate and scale up investments to build a thriving Circular Chemical Industry.

Utilising end-of-life materials as raw materials would minimise the waste lost to landfills and incineration:

1) **Waste as a resource**: The Waste Framework Directive (WFD) should be effectively implemented across all EU Member States. A thorough evaluation of the WFD is needed to assess whether it should be reoriented toward a more resource-focused framework that more structurally supports the circular economy**.** Currently, it is primarily focused on waste management, whereas a shift may be needed to focus more on retaining the value of end-of-life materials as a resource. This would enable the efficient use of waste-based raw materials substituting the use of virgin feedstock, thereby increasing our strategic autonomy. In addition, greater emphasis should be placed on the prevention element of the waste hierarchy, and not only on end-of-life treatment.
2) **Single Market for waste-based resources:** End-of-waste criteria should be harmonised across the EU, enabling a uniform and clear interpretation/implementation on when waste becomes again a raw material, which can be valorised as resource. This will solve the hurdles and the legal uncertainty with transporting waste-based raw materials across the borders of EU Member States (if not even across regions within individual Member States). This should be complemented with an improvement of the Waste Shipment Regulation, supporting the scale up of recycling facilities via the sound intra-EU transboundary movement of materials at the end of their life.
3) **Secure waste streams:** Minimise landfilling and incineration of recoverable municipal waste by accelerating the adequate implementation of the EU Landfill Directive (2018/850) and amend Annex I to include municipal Waste Incineration in scope of EU Emissions Trading System (ETS).

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4) **Increase EU's raw material resilience:** The EU should encourage utilisation of European-sourced and equivalent circular feedstocks from trusted trade partners to support high-standard market creation for raw materials. The different product legislations under development (e.g. Packaging and Packaging Waste Regulation (PPWR), End-of-Life Vehicles Regulation (ELVR), Ecodesign for Sustainable Products Regulation (ESPR) can be considered as policy tools to create a market demand for these feedstocks and ensure free and fair trade[1].
5) **Extended Producer Responsibility (EPR)**: Product specific EPR schemes can play an essential role in efficient waste management and optimisation of recycling. The EPR scheme requirements and financing must be developed and managed in close collaboration with the obliged industry (e.g. via Producer Responsibility Organisations)**.** EPR schemes need a certain level of harmonisation at EU level to enable upscaling of recycling, but allowing also local specificities adapted to the national waste related legislation, market conditions, and infrastructure. EPR schemes should not set product requirements but should align with the circularity criteria developed in different EU product legislations to make sure the EU single market for products is respected.

Enhancing the use of circular feedstocks will strengthen more sustainable carbon cycles

6) **Circular feedstocks (biomass derived, recycled and carbon capture and utilisation (CCU) based)**: There is a need to harmonise criteria for sustainably sourced feedstocks, including certification schemes and definitions that address the different types of circular feedstocks across the value chain. This should be accompanied by the establishment of a clear calculation methodology and a verification system for recycled, biomass-derived and CCU content. To guarantee transparency and industry competitiveness, it is necessary to have scientifically robust and harmonised widely accepted methodologies at EU level that would cover the different types of feedstocks and products. Additionally, clarity must be provided on the mass balance chain-of-custody as a key enabler to contribute to circular content targets. Mass balance is one of the well-known and widely used "chain of custody" models, as defined in ISO standard 22095.
7) **Circular targets:** Consider the inclusion of ambitious circular content targets for end products in product legislation based on a thorough impact assessment, including an analysis of the necessary framework conditions and the needs of the value chain. When setting targets, it should be ensured that these create a significant demand pull to foster investments in all types of circular feedstocks and technologies. Any circular content requirement should also apply to imported products and be enforceable, a credible verification system must be in place to guarantee any claims related to imports. Cefic supports a general aspiration to track and increase the share of circular carbon sources in chemical and plastic products as formulated in the Commission's Communication "Sustainable Carbon Cycles".
8) **Technology neutrality**: Ensure a level playing field for all circular feedstock related technologies to allow the EU chemical industry to transform and scale-up circularity. With recycled content targets being currently included in Single Use Plastics Directive (SUPD), PPWR and ELVR and possible later on in other

[1] The EU should also ensure a timely implementation of equivalency clause to ensure a fair level playing field. (See: https://cefic.org/resources/cefic-views-on-circular-carbon-feedstocks/)

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product legislations, it is important to include the calculation rules to allow various chemical recycling technologies to contribute to these targets. The use of targets to create market pull for circular feedstocks should be expanded with new targets supporting biomass and CCU established as quickly as possible, these value chains need to be scaled up in parallel to the waste infrastructure that supplies the recycled content. Efforts in this regard should be additional and should not compete with recycled content targets to avoid diluting incentives for investments to scale up the recycling infrastructure.

9) **Chemical recycling:** There is an urgent need to provide clarity on the calculation rules for chemical recycling, incorporating a fuel use exempt mass balance chain-of-custody, as a key enabler to contribute to recycled content targets. It is also important to have chemical recycling contributing to waste recycling-rate calculations across all member states.
10) **Biomass**: Consider duty free imports of sustainable sourced biomass including bio-oils, bioethanol, and sugar, for chemical conversion to create a level playing field for the European industry using biomass as circular feedstock. A credible verification system must be in place to guarantee the claims. If a unilateral liberalisation of the duties on listed products is not considered as feasible, we call for the liberalisation to be pursued in the context of FTA negotiations with partner countries that are able to provide the materials at competitive prices.[2,3]
11) **Carbon Capture and Utilization (CCU) and Emission Trading System (ETS):** The EU ETS should recognise non-permanent CO_2 capture and utilisation in products.

Technology diversity and customised approach for each product value chain

12) **No 'one size fits all'**: Avoid 'one size fits all' measures for end products. Whether it is via ESPR, PPWR, ELVR, Construction Products Regulation, or others, each product should be considered on its own when setting circularity requirements since the materials are designed different according to the performance the end application requires. Avoid requirements at intermediate stages of the value chain, design requirements should always be at the end-product and the value chain upstream will have to adjust.
13) **Digital Product Passport (DPP)**: Ensure an efficient implementation of the Digital Product Passport as a critical tool to communicate on a need-to-know basis relevant sustainability features of a product throughout the value chain. It should provide instructions to foster circular management and track and trace of substances of concern which are proven to hinder recycling processes, taking into account all recycling technologies.

Upscaling circularity requires supporting the business case

14) **Implement market pull policies:** Additional demand side measures (e.g. lower Value Added Tax (VAT) and increased Green Public Procurement (GPP)) should improve the business case for circular initiatives.

[2] See position paper "Sky-high EU sugar import tariffs and their negative impact on the EU fermentation industry" of the European Fermentation Group and the Cefic position paper "Cefic proposals for the Bioeconomy Strategy update".
[3] E.g. the negotiations with Thailand, Malaysia and Indonesia taking place in 2026

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Enforcement of circularity related criteria set for the products is key to ensure successful implementation of the market pull measures.

15) **Trade Facilitation:** Engage with efforts at the World Trade Organisation (WTO) (through the Trade Facilitation Agreement) as well as work with Basel and the World Customs Organisation (WCO) to streamline customs treatment of feedstock/raw materials for recycling as well as trade in recycled products. Identifying clear procedures for trade in high-standard material will encourage development of markets and investment in recycling technology. Options to consider would be fast track or expedited treatment of feedstock that sources critical recycling operations.
16) **Greening of Customs:** Explore the development of "Green Customs", by integrating circularity criteria into customs procedures to facilitate trade and uptake in circular products building on initiatives from the WCO and WTO. For instance, this could be achieved via the development of automated and expedited customs procedures for sustainably classified products.
17) **Make the EU taxonomy more accessible**: Simplify the EU Taxonomy framework and avoid overly prescriptive and restrictive technical screening criteria currently undermining its implementation and usability (e.g., unfeasibility for plastics in primary form in activity 3.17 of the Climate Delegated Act to be "fully manufactured" by chemical recycling of plastic waste[4], criteria in Appendix C of the generic criteria for Do No Significant Harm (DNSH) for pollution prevention and control going beyond EU chemical legislation).
18) **Facilitate First of a Kind projects**: Ensure a smart EU innovation framework that includes increased and simplified access to EU and Member State funding for not only technologies with higher technology readiness levels (TRLs), but also to transfer from demonstration to First of a Kind (FOAK) industrial projects.
19) **De-risk scale ups**: Create funding options and incentives to de-risk scale-ups from demonstration to first-of-a-kind circular industrial projects, including the Innovation Fund, Horizon Europe, and the Recovery and Resilience Facility under NextGenerationEU.
20) **Build circular infrastructure**: Use Recovery and Resilience Facility Funds for circular infrastructure and assure a continued support.
21) **Speed up and streamline permitting circularity related solutions**: Make governments, from local, regional to national level, aware of the sense of urgency to accelerate permitting processes for new industrial projects and infrastructure supporting the transition to a circular economy. Address also the challenges related to the implementation of innovative solutions and new technologies into production facilities having long-term permits, as the hurdles for transitioning to circular concepts are immense (for example, when implementing innovative production technologies or using secondary material streams).

[4] Criterion (b) of the activity *3.17 Manufacture of plastics in primary form* implies that the plastic in primary form has to be fully manufactured with recycled feedstock in order to be Taxonomy aligned. However, a line of production (cracker) 100% non-fossil based is practically not feasible since virgin feedstock is always required. The activity 3.17 manufacture of plastics in primary form should encourage a progressive increase in the proportion of chemical recycled input in the production process.

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22) **Embed a dedicated fund in the Multiannual Financial Framework 2027–2034**: For those technologies and products manufacturing sectors mentioned in the Strategic Agenda 2024-2029, ensuring that the clean technologies by the chemical industry are adequately represented, both in a dedicated fund as well as in relevant R&I funding calls. Apply blended finance (inspired by InvestEU) and integrate European and national/regional funding schemes.

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