

Cefic views on the proposed Regulation on circularity requirements for vehicle design and on management of end-of-life vehicles (ELV)

Cefic welcomes the proposed Regulation addressing circularity requirements for vehicle design and the management of end-of-life vehicles (ELV) aiming to replace the 3R type-approval and ELV Directives. As raw material supplier at the top of this value chain, the chemical industry would like to provide feedback on cross cutting aspects of the proposal:

- Performance and information requirements on substances of concern
- Advanced materials and innovation
- Recycled content in vehicles
- Alternative feedstocks
- Definition of plastics
- Circularity vehicle passport
- Circularity strategy

Performance and information requirements on substances of concern (SoC)

The ELV Regulation proposal introduces a specific use case for the definition of SoC as described in the Ecodesign for Sustainable Products Regulation (ESPR) text, which is yet to be finalised. In what refers to information requirements, Cefic supports the SoC concept for the purposes of tracking and tracing of certain categories of chemicals in the value chain. Instead, product specific restrictions for substances impeding circularity need to be carefully assessed on a case-by-case basis, always distinguishing between circularity and chemical safety as proposed by this regulation. Cefic appreciates the hybrid approach taken in the legislative proposal to address all potential new restrictions of substances in vehicles for reasons related to chemical safety primarily under REACH. This is imperative to avoid creating a parallel system to REACH under regulatory schemes dealing with specific product categories.

A clear definition of “circularity impediment” will be key for a well-functioning REACH/Product legislation interface. The presence of substances that could compromise reuse and recycling should be dealt within the context of design for recycling provisions to be included in the circularity strategy of each vehicle and in its circularity vehicle passport. Appropriate involvement of the relevant expert committees will be needed for establishing end-of-life requirements and keeping a clear line between chemical safety and circularity restrictions.

Advanced materials and innovation

The integration of advanced composite materials in vehicles enhances performance, offering benefits such as lightweight design and durability, with sustainability advantages like reduced road emissions. As the automotive industry transitions to electric vehicles, the indispensable role of composite materials and adhesives in enabling the production and deployment of lightweight electric vehicles becomes paramount. Adopting a holistic approach including Life Cycle Assessment (LCA) is crucial to

prevent the substitution of effective materials with less optimal alternatives and to ensure both a long-term focus on high-performance materials and safety during driving.

It is important to recognise that composite parts and adhesives do not impede recycling processes and should not be seen as hindrances to circularity. Therefore, Article 21(1e) on fee modulation should exclude materials, like composites or adhesives, that do not hinder recycling processes.

Recycling composite parts is viable with proper design, collection, sorting, and treatment. A recent report by the Joint Research Centre¹ acknowledges that some composite recycling processes are already at TRL9, with additional processes under development. This proposal should incentivise efforts to optimise recycling technologies, improve material sorting and dismantling methods.

Recycled content in vehicles

Recycled content targets can incentivise the uptake of recycled content, leveraging the power of Europe's single market. Setting targets is an important driver for creating and scaling the market. However, the proposed targets fail to take into account the fact that materials used in vehicles can be replaced during the lifetime of a vehicle and that these need recycling too. In addition, recycled content targets should be discerning, and exemptions, such as those pertaining to tires, should be considered for practical and contextual reasons.²

The European ambition to transition from a linear economy towards a sustainable circular economy calls for an array of complementary recycling options and business models. Chemical recycling can play its part in valorising end-of-life plastic waste streams, diverting it from landfill and incineration, enabling the production of new chemicals including plastics. It will be very difficult to meet ambitious recycling targets without the rapid scale-up of chemical recycling and the recognition of the mass balance approach.

¹ Joint Research Centre, 2023, Towards a better definition and calculation of recycling, JRC131531.

² Note: the recycled content targets in the proposal should not include vulcanised elastomers such as rubber for tires.

To ensure that the EU's policy framework promotes an efficient and effective deployment of chemical recycling, it is key that a credit mass balance Fuel Use Exempt method is recognised to allow chemical recycled feedstock to contribute to recycled content targets.³

Cefic supports that all waste types should account for recycled content, to incentivise investment in technologies that would bring more recycled feedstock to the economy.

A strict closed loop recycling approach does not encourage a fully-fledged circular economy. While closed loop recycling works well for certain materials, it does not for others.

Alternative feedstocks

In order to reduce the dependency on fossil sources, the proposal should also consider the use of bio-based and CO₂-based feedstocks to be used in materials, plastics and chemicals for vehicles. They have demonstrated to provide environmental and climate benefits, such as reduced environmental footprints, while being reusable and recyclable.

The EU should embrace an inclusive approach by factoring in other options beyond its focus on recycling. Therefore, we call for considering biomass- and CO₂-based content as complementary to recycled content and therefore contributing to a circular and sustainable automotive sector. Efforts in this regard should be additional, and should not compete with recycled content targets.

Definition of plastics

The current proposal defines plastics as *"a polymer within the meaning of Article 3, point (5), of Regulation (EC) No 1907/2006, to which additives or other substances may have been added"*. It is

³ <https://cefic.org/app/uploads/2022/12/Chemical-Recycling-Delivering-recycled-content-to-meet-the-EUs-circular-economy-ambitions-%E2%80%93-the-Single-Use-Plastics-Directive-Implementing-Act-and-the-Packaging-and-Packaging-Waste-Directive-revision.pdf>

important to note that while all plastics are polymers, not all polymers qualify as plastics. The proposed definition goes far beyond plastics, as it would encompass, for example, substances like polymeric surfactants that are irrelevant in this context.

Instead, Cefic urges to use a more precise and specific definition as provided by Regulation (EU) No 10/2011 (on plastic materials and articles intended to come into contact with food), which characterises plastics as *“a polymer to which additives or other substances may have been added, capable of functioning as a main structural component of final materials and articles”*.

A refined definition of plastics is essential for the practical implementation of recycled content targets outlined in this proposal. The definition of plastics found in the Regulation (EU) No 10/2011 will ensure a more accurate and targeted approach by clearly delineating the scope of plastics and excluding substances that do not align with the intended objectives.

Circularity Vehicle Passport

We welcome the interoperability of the Circularity Vehicle Passport with other passports required by Union legislation, as established in Article 6(3)(b). Vehicles are to be considered complex products because they encompass many of the products and intermediates subject to the future implementation of the ESPR and Battery Regulation regarding information requirements. The Vehicle Passport is likely to be the Union’s first complex passport, encompassing battery, textiles, tyres, and similar passports, and will encounter the challenge of collecting information on materials, intermediates, and components without introducing duplicate data entries, thereby enabling value chain coordination throughout the entire ecosystem from cradle to grave. It is crucial that clear and workable criteria are implemented to define the level of granularity of information requirements.

The digital implementation of the Circularity Vehicle Passport will serve as a conduit for conveying environmentally relevant vehicle information. For this, not only will alignment in standards be necessary, but also a uniform definition of eco-design requirements will be required to facilitate a

practical cross-value chain approach. Consistent terminology must be applied to the same information requirements across different sectors to prevent contradictory definitions and multiple IT systems that could lead to increased manual work and disproportional costs, especially for SMEs.

Circularity Strategy

A circular strategy requires circular instead of linear thinking

To create a successful circular strategy, comprehensive collaboration across the entire value chain needs to be prioritised. The current approach, as outlined in Annex IV part A, is fragmented and linear, mainly focusing on interactions from suppliers to the end-of-life stage. Manufacturers are currently responsible for gathering data from upstream suppliers, but to fully embrace circularity, a dedicated collaboration with suppliers should be established, including those in the chemical sector.

This collaboration should also cover material design and end-of-use considerations, aiming to enable vehicle parts recycling. This approach boosts efficiency, reduces impurities, and minimises waste. Annex VII Part C lists mandatory parts to remove from end-of-life vehicles, but the inclusion of item 18, mentioning "Any other mono-material plastic components heavier than 10 kg," lacks clarity. It would be more beneficial to replace this with "Any other plastic components that suppliers can recycle or reuse as circular feedstock," which will enhance cooperation with suppliers.

Content alignment of circularity strategy requirements with different legislations

Companies are mandated to report under the Corporate Sustainability Reporting Directive (CSRD) on the crucial topics outlined in the European Sustainable Reporting Standards (ESRS). ESRS E5 Resource Use and Circular Economy outlines disclosure requirements related to impact, risk, and opportunity management.

For instance, ESRS Disclosure requirement E5-1 15 (b) requires companies to specify whether and how their policies address vital issues when they are material, such as sustainable sourcing and the use of renewable resources. However, there are areas of ambiguity, such as in ELVR Annex IV Circularity strategy Part A 2, where it is unclear what specific data and information need to be collected.

In this context, we recommend maintaining a materiality-based approach, meaning that supply chain information should be included only in relation to the parts of the value chain where the matter is material. To ensure alignment with ESRS requirements, we propose a phased approach, implementing certain requirements gradually, including those related to supply chain data collection.

Furthermore, it's important to note that the ESRS addresses resource efficiency with respect to critical raw materials, which is not explicitly covered in ELVR Annex IV. Achieving full alignment between ESRS disclosure requirements and the elements of the circularity strategy is crucial. This alignment will enable manufacturers to develop a comprehensive circularity strategy that covers impact, risk, and opportunity management in a unified manner. Lack of alignment between similar reporting obligations could create double reporting on the same topic, which clearly goes against the ambition of the European Commission to reduce reporting obligations where these are not clearly beneficial.

Circular among safety and performance supported by proven and new technologies

According to recital (26), the circularity strategy should be based on proven technologies, which are available or in development at the time of applying for the vehicle type approval. This implies that all technologies are considered following a neutral technology approach, however, technologies features and externalities must be taken in consideration in the circular strategy development. Technology gaps might be identified when the circularity strategy is developed, which should allow the inclusion of new technologies.

The principles of the circularity strategy as described do not address how to deal with vehicles safety and performance requirements. Safety requirements should always prevail while circularity principles should consider environmental benefits in an holistic way and in relation to performance requirements, e.g., light-weight composite materials result in reduced energy consumption and thus reduced GHG emissions. In addition, it is recommended to identify in the circularity strategy potential conflicts with other legislations including environmental ones.

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