

Position Paper

Achieving greater circularity for automotive plastics through the End-of-Life Vehicles Regulation

Plastics Europe supports the high level of ambition shown by the European Commission in the End-of-Life Vehicles Regulation proposal. To reach the target, the recognition for chemical recycling, operating in a complementary manner to mechanical recycling, as well as a separate additional circular plastics target will all be needed. We therefore call for:

- An ambitious binding legislative target for recycled content in automotive plastics of 20% from mechanical, physical and chemical recycling,
- An on-top mandatory target of 5% target for plastics made from circular feedstocks².

The automotive sector represents the third biggest application for plastics in Europe. Plastics contribute to vehicles by improving their safety, enabling electrification, reducing the emissions of vehicles, and ensuring continued lightweighting. To ensure these elements are continued in a circular system, we believe the following elements need to be addressed in the Commission's proposal:

1. A 25% target for recycled and circular plastics:

Plastics Europe believes that a minimum recycled content target of **20%**¹ based on a **combination of mechanical, physical and chemical recycling** is an ambitious but feasible target. This target should be **supplemented by 5% target for circular plastics, which can be produced from recycled, bio-based, or carbon capture (CCU)-feedstock**. This 5% top up circular plastics target will encourage the take-up of alternative feedstocks and will help to move the industry away from fossil-based materials.

Fulfilling these ambitious circularity requirements for plastic used in vehicles will require significant investment in waste management, collection, sorting and increased recycling capacity. The certainty for these investment decisions is dependent on the established rules for calculation and verification of the recycled and circular plastic. As such there should be a review of the targets 6

¹ (this target does not include vulcanised elastomers such as rubber for tires)

² Circular feedstocks are recycled feedstock, bio-based feedstock, carbon captured feedstock.

Note: The definition is based on the feedstock used and does not refer to the End-of-Life of the plastics.

months after adoption of the implementing act (referenced in Art 6 part 2) to confirm that enough feedstock is available to the industry to comply with this market access requirement. In the event that the Commission finds there is not enough feedstock available they should be empowered to delay the implementation of the targets.

2. Acceptance of chemical recycling using the mass balance credit model

For the 20% target to be achieved, **immediate acceptance of chemical recycling including a mass balance credit allocation (fuel use exempt²) model** is needed to trigger the investments for transition in Europe³.

Chemical recycling is a key enabler for the plastics industry to help meet the EU's climate and circularity objectives. This technology helps divert plastic waste from incineration and landfill and reduce usage of fossil resources while lowering overall emissions. A fast scale up of this technology requires a supportive European legislative framework allowing existing and new processes among plastics value chain actors to be deployed.

It will therefore be key that we see a rapid adoption of the measurement methodology implementing act referred to in Article 6(2).

3. Use of innovative and alternative feedstocks for increased circularity:

To reduce the dependency on fossil fuels in plastics production, industry is looking to increase the use of bio-based, bio-attributed, CCU-based or CCU-attributed plastics to produce automotive plastics. The inclusion of 5% target for plastics made from circular feedstocks⁴, on top of the 20% recycled content target will help drive this transition.

The target may be met by plastics produced from circular feedstock to support supply security and the development of a free market for non-fossil plastics. To ensure transparency and market and consumer confidence, products' names and claims shall reflect the chain of custody that has been used to assign and quantify some characteristics, such as the recycled, bio-based, bio-attributed or CCU-based characteristic. Claims should also be supported by appropriate certification and comply with appropriate standards e.g., ISO 14021⁵.

4. Addressing the workability of the closed loop targets & inclusion of all plastics streams

Because of how the recycling and plastics production processes work across Europe (where the recycled output is a mix of different plastics wastes from different applications), closed loop

² Fuel used as energy in the process and co-products produced and used as fuels are excluded, with the remaining outputs freely allocated.

³ The European Commission needs to swiftly develop secondary legislation aimed at defining the methodology to account for the use of bio-based, bio-attributed and CCU-based and attributed plastics in packaging, To meet the 2030 circular plastics target, legal certainty on the method is needed in 2023 to ensure sufficient time to plan, finance, secure permits, and construct the related necessary infrastructure.

⁴ Circular feedstocks are recycled feedstock, bio-based feedstock, carbon captured feedstock.

Note: The definition is based on the feedstock used and does not refer to the End-of-Life of the plastics.

⁵ <https://www.iso.org/standard/66652.html>

recycling may require a full reorganisation or creation of new infrastructural systems, including processing lines per recycling plant per polymer and per application.

Plastics Europe has concerns about the economic and environmental sustainability of this proposal as it could create several smaller product-to-product industrial plants with the consequent inefficient use of land, infrastructure, resources as well as of energy for the processes. An open loop would allow the fossil feedstock to be replaced by recycled material also in other products resulting in greater value being retained in the economy with consequent GHG emission saving.

Plastics Europe also calls for the acceptance of all plastic streams to contribute to the recycled content target based on the definition of plastics under Regulation (EU) No 10/2011. By using a definition of plastic which excludes various plastic types regularly used in vehicles (e.g. thermosets that make seat cushions), this limits the effectiveness of the measure in driving circularity of vehicles.

The current proposal also unnecessarily limits the potential waste input streams (e.g., mixed waste streams consisting of pre-and post-consumer waste; mixed waste streams from different industry sectors e.g., electronic and automotive waste), and thereby impedes the ability to deliver the ambitious volume of recycled and circular plastics⁶.

Finally, along with the full end-of-life vehicle, car parts exchanged during the lifecycle of the car (End-of-Life Vehicle car parts) need to be respected as valuable waste stream for the recycling of automotive plastics. Plastics Europe calls for the inclusion of those important waste streams to be integrated in the recycling target as well as the considered waste streams for generating recycled material as feedstock for new vehicles or vehicle parts.

5. Addressing substances of concern and chemical safety:

The ELV is not the appropriate tool to regulate substances of concern for chemical safety reasons, as chemical hazards to health and environment are addressed already in the REACH regulation (the world's most comprehensive chemicals management framework). Any update to the ELV should be considered in the context of the current and future revision of these legislations. Adding further provisions on hazardous substances in the ELV for chemical safety would create a second layer of legislation that would create legal uncertainty and affect the proper implementation in the Member States. The presence of substances that might hinder recycling should be addressed in the context of the design for recycling provisions which would be included in the circularity strategy of each vehicle and in the circularity vehicle passport.

Furthermore, new car parts using recycled materials from a mandatory closed-loop recycling would be obliged to use recycled plastics (including additives) made from materials taken for vehicles 10+ years old which may not meet current chemicals policy. Depending on the recycling technology used, these recycled plastics could contain substances of concern that were not restricted in the

⁶ Note: this feedback is only on plastics excluding vulcanized elastomers. Plastics Europe support the recycled content for those materials but is not in the position to give qualified feedback on a potential target for recycled content nor has this been assessed in the impact assessment provided by the JRC.

past and are now prohibited by the End-of-Life Vehicle Directive, REACH or other regulations (e.g., Perfluorooctanoic acid with a threshold of 25 ppb). This proposal should take into account the ways that innovative recycling technologies offer new possibilities to address these substances of concern.

6. Extended producer responsibility (EPR) schemes for the automotive sector

Extended Producer Responsibility schemes in the automotive industry are a valuable tool for managing a producer's responsibility in financing the recycling of the end-of-life vehicles they place on the European market. At the same time, EPR incentivises the opportunity to secure an easy and open supply of high-quality recycled material for producers. It is a driver of circularity that secures the transformation of waste into the future feedstock for plastics products.

Investments of collected EPR funds should be accompanied by a transparent investment framework that stimulates innovation and the development of the required infrastructure for achieving the Circular Economy goals.

Solid evaluation criteria and methodologies are required to define EPR categories and fee modulation for each category. Potential eco fee modulation, if applied, should be based on clear, predictable, and harmonised criteria. Fee modulation should not lead to substitution by competing materials unless clearly proven to lead to a reduced environmental impact and no reduction in resource efficiency. Those essential conditions need to be taken up in minimum requirements laid down in secondary legislation defining the future of EPR systems for the automotive sector.

7. Definitions creating a clear scope and joint understanding:

Plastics Europe is concerned about the definition of plastics in the proposal, as it fails to integrate essential materials such as thermosets (e.g. seating foams). Plastics Europe calls for a change of the definition of plastics to ensure circularity of all plastics. We therefore propose to change the definition of plastics to "‘plastic’ means a polymer within the meaning of Article 3, point (2) and (3), of Regulation (EU) No 10/2011⁷, to which additives or other substances may have been added;". If not changed, essential plastic materials used in vehicles would be out of scope of the End-of-Life Vehicle Regulation requirements.

⁷ (EU) No 10/2011 on plastic materials and articles intended to come into contact with food
Article 3

- 2) 'plastic' means polymer to which additives or other substances may have been added, which is capable of functioning as a main structural component of final materials and articles
- 3) 'polymer' means any macromolecular substance obtained by:
 - (a) a polymerisation process such as polyaddition or polycondensation, or by any other similar process of monomers and other starting substances; or
 - (b) chemical modification of natural or synthetic macromolecules; or
 - (c) microbial fermentation

Additional missing definitions:

- End-of-life vehicle part: means a vehicle part which is waste as defined in Article 3, point (1), of Directive 2008/98/EC, or vehicle parts that are economically irreparable or its structural and safety components have technical defects that are irreversible
- ‘Circular plastics’ means a group of plastics fully or partially produced from circular feedstocks including recycled, bio-based, and carbon-captured based feedstocks.
- “‘Post-consumer plastic waste’ means waste that is generated from products containing plastics after they have been placed on the market.”

Conclusion:

We believe a mandatory recycled content target of 20% + a 5% on-top target for circular plastics is an important step to increase the circularity of automotive plastics. The recycled content target can only be met by accepting mechanical, physical and chemical recycling as complementary recycling technologies. The additional 5% target can be reached by applying a combination of circular plastics. An appropriate regulatory framework as described in the points above that takes consideration of the existing trade-offs, that accommodates innovative circular and chemical recycling technologies will encourage investment and further accelerate commercialization to provide the required quantities and qualities of recycled plastics for the automotive sector and ensure the path towards the circular economy.

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