Circularity requirements for vehicle design and management of end-of-life vehicles

2023/0284(COD) - 13/07/2023 - Legislative proposal

PURPOSE: to enhance the circularity of the automotive sector, covering the design, production and end-of-life treatment of vehicles.

PROPOSED ACT: Regulation of the European Parliament and of the Council.

ROLE OF THE EUROPEAN PARLIAMENT: the European Parliament decides in accordance with the ordinary legislative procedure and on an equal footing with the Council.

BACKGROUND: the production of vehicles is one of the most resource-intensive industries. Europe's automotive sector is responsible for 19% of demand for the EU's steel industry (over 7 million tonnes /year), 10% of overall consumption of plastics (6 million tonnes/year), a significant share of the demand for aluminium (42% for all transport equipment, around 2 million tonnes/year), copper (6% for automotive parts), rubber (65% of the production of general rubber goods) and glass (1.5 million tonnes of flat glass produced in the EU).

Every year, over six million vehicles in Europe reach the end of their life. Inadequate handling of vehicles at the end of their life results in lost value and pollution. The recent evaluation of the existing EU legislation regulating the area - Directive 2000/53/EC on end-of-life vehicles (ELV Directive,) and Directive 2005/64/EC on the type-approval of motor vehicles with regard to their reusability, recyclability and recoverability (3R type-approval Directive) - has shown that considerable improvements were needed to boost the transition of the automotive sector to a circular economy, thereby reducing the environmental impact linked to the production and end-of-life treatment of vehicles, and strengthening the sustainability of the automotive and recycling industry in Europe.

Moreover, the electrification of vehicles will further increase the need for critical raw materials (CRMs) such as rare earths. Making new vehicles more sustainable and circular is essential to address our dependencies, lower the environmental impact linked to the extraction and processing of primary materials used in vehicles, as well to facilitate the re-use and recycling of vehicles reaching the end of their life.

CONTENT: the Commission has revised the existing legislation and proposes a single regulation that focuses on several key elements to improve quality in design, collection, and recycling. The draft regulation lays down circularity requirements on vehicle design and production related to reusability, recyclability and recoverability and the use of recycled content, which are to be verified at type-approval of vehicles, and on information and labelling requirements on parts, components and materials in vehicles. It also lays down requirements on **extended producer responsibility, collection and treatment of end-of-life vehicles**, as well as on the **export of used vehicles** from the Union to third countries.

The proposal aims to:

- improve the functioning of the EU internal market by **reducing the negative environmental impacts** linked to the design, production, service life and end-of-life treatment of vehicles and contributing to the sustainability of the automotive and recycling sectors;

- facilitate and increase the **removal, reuse, remanufacturing and recycling** of materials, parts and components contained in vehicles;

- increase the **use of recycled materials** in the production of vehicles, thereby incentivising recycling, reducing strategic dependencies of raw materials and supporting the decarbonisation of the automotive industry;

- increase **circularity for lorries, buses, trailers and certain L-category vehicles** currently outside the scope of the ELV and 3R type-approval legislation;

- improve treatment of end-of-life vehicles by increasing the quantity and quality of materials re-used, remanufactured and recycled, thereby reducing the environmental footprint linked to the end-of-life stage.

General provisions

The proposal states that the majority of its provisions apply to vehicles of categories M1 and N1 (cars and vans). Certain provisions on the management of end-of-life vehicles and on export requirements also apply to certain L-category vehicles (vehicles of categories L3e, L4e, L5e, L6e and L7e), to lorries, buses and to trailers (vehicles of categories M2, M3, N2, N3 and O).

Circularity requirements concerning vehicle design

The proposal lays down minimum requirements on the reusability, recyclability and recoverability of vehicle types, specifying the rates to be achieved by each type. It restricts the use of lead, cadmium, mercury and hexavalent chromium in vehicles and Annex III provide exemptions from this restriction. It is required that each vehicle type contains at least **25%** of plastic recycled from postconsumer plastic waste, and that 25% of such material should come from recycled end-of-life vehicles. The proposal also lays down a requirement to design vehicles in a manner that enables the removal and replacement of electric vehicle batteries and e-drive motors from the vehicle type during both the use phase and the waste phase.

Management of end-of-life vehicles

To facilitate the end-of-life treatment of vehicles, vehicle manufacturers should provide, via digital tools, accurate, complete and up-to-date information on the safe removal and replacement of vehicle parts and components. A Circularity Vehicle Passport should therefore be developed and made available as a data carrier for such information.

Member States are required to create a register that will monitor compliance of producers with these requirements. The costs related to managing end-of-life vehicles that should be covered by financial contributions of producers.

Requirements are laid down concerning the depollution of end-of-life vehicles, indicating that removed fluids and liquids must be separately stored, similarly as parts, components and materials containing lead, cadmium, mercury and hexavalent chromium.

Lastly, the proposal aims to put an end to "disappearances" of vehicles, by means of more inspections, interoperability of national vehicle registration systems, a better distinction between second-hand vehicles and end-of-life vehicles, and a ban on the export of second-hand vehicles that are not roadworthy.

According to the Commission, the proposed regulation should deliver substantial environmental benefits, including an annual reduction of 12.3 million tonnes of CO2 emissions by 2035, better recovery of 5.4 million tonnes of materials and increased recovery of critical raw materials.