

INTRODUCTION

In the context of the revision of the End of Life Vehicle (ELV) Directive and the ongoing consultation, European Aluminium would like to summarize in this paper our top priorities and reflections.

Generally, the ELV Directive has truly improved the way vehicles at their end of life are treated. Since its first implementation, important enhancements have been made, and while we fully support the current update of this directive in order to be in line with technological and societal changes that took place in the last years, we also believe that there is still the need, now more than ever, to further **work towards a Directive focused on ensuring that the materials used in cars are made available over and over again.**

The revised ELV Directive should not only ensure that materials are **collected at the end of life and appropriately recycled or recovered**, but should further focus on the improvement of the quality of such materials, to **ensure their reuse in closer loops and high-quality applications**. Such target could be achieved through increased dismantling of components before shredding and their separate recycling, improved flow of information to dismantlers concerning the composition of the various components, and further implementation of post-shredding technologies. These would also contribute to improve the collection and recycling of some critical raw materials (CRM). In fact, some CRMs, like magnesium and silicon, are typically used in aluminium alloys. **Improving the collection and recycling of aluminium alloys would directly have an effect on these CRMs.**

POLICY RECOMMENDATIONS

European Aluminium wants to bring forward four key recommendations to improve the recycling of End-of-Life Vehicles (ELVs) in general, and the recycling of aluminium from these vehicles in particular:

1. Design for recycling and post-shredder separation technologies should be further incentivised

The most cost-efficient End-of-Life Vehicle treatment is only achievable if all actors work together. Post-shredder treatments are part of the solution as well as dismantling before shredding for parts that can easily be recycled into similar applications (e.g. hoods, doors). The operational and economic feasibility of dismantling before shredding depends on the location of the parts as well as on the design for easy dismantling. The design and production of new vehicles shall therefore consider *design for recycling*, *design for dismantling* and *design for reuse*. To facilitate the most appropriate treatment of End-of-Life Vehicles by recyclers and dismantlers, it would be important to introduce a better tracking of car materials, for example through the International Dismantling Information System (IDIS) or other methods. The information should include the materials and alloys used in each component and the instructions for the disassembly and recycling.

For parts that could not be economically dismantled, ELV processing plants and manufacturers should be required to accelerate the development of post-shredder separation technologies capable of sorting aluminium alloys in different alloy families.

2. Promotion of holistic environmental benefits

Thanks to the use of aluminium, cars have become lighter and, thus, overall more energy-efficient. At the same time, the high recyclability of aluminium has significantly contributed to the recycling rates of vehicles. Therefore, the ELV Directive should continue to promote comprehensive material solutions instead of focusing only on singular-benefit aspects. Especially the recyclability and overall energy efficiency are important indicators for a holistic environmental assessment of a material. If the goal of the ELV Directive remains to limit the production of waste and to increase the rates of reuse, recycling and recovery, the ELV Directive should continue to focus on circularity and promote materials that contribute to that objective.

3. The EU must act to get a better understanding of where End-of-Life Vehicles of unknown whereabouts end up. The EU must also take swift action against any illegal shipment or treatment of End-of-Life Vehicles

In view of the circular economy and to ensure responsible treatment, the large number of End-of-Life Vehicles with unknown whereabouts must be addressed. The deregistration system must be improved with the aim to stop any illegal shipment or treatment of End-of-Life Vehicles to avoid further losses of valuable secondary materials.

4. Minimum recycled content rates for materials like aluminium are ineffective

Introducing a minimum recycled content for highly recyclable materials such as aluminium is counterproductive. Already today, aluminium is recycled at very high rates. Approximately 95% of the aluminium in an End-of-Life Vehicle is recycled and all secondary material put on the market is used for new products. On that basis, a minimum recycled content target for aluminium components in cars would lead to unintended consequences:

Due to the long lifespan of, volume-wise, dominant aluminium applications such as buildings and vehicles, today's available quantities of end-of-life aluminium scrap are limited compared to what was put on the market years ago. As this limited scrap volume cannot meet the increasing demand for aluminium, the shortfall must be met by the primary aluminium industry.

Consequently, imposing minimum recycled content obligations for cars will simply shift recycled aluminium from other products to the automotive sector, without creating an additional benefit to the circular economy. For the car production, the environmental impact will be improved but the overall impact will be null. In turn, it is expected that such obligation will increase waste transport as aluminium scrap will have to be imported or otherwise relocated to the automotive industry.

Therefore, the ELV Directive should rather focus on maximizing the recycling of the materials used, being critical raw materials¹ or not, improving the quantity and the quality of the fractions recovered at the end-of-life of the vehicle and on ensuring ethical standards throughout the value chain. For aluminium, this will mean promoting the dismantling of monomaterial (aluminium) parts from the vehicle before shredding and requiring the separate collection of cast and wrought aluminium.

¹ In its 2020 revision, the European Critical Raw Material (CRM) List included bauxite. Bauxite ore is used for the production of alumina, with the latter to be then transformed into primary aluminium. Due to the high quality of the bauxite ore, about 70% of those EU imports originate from Guinea alone. Despite the high import-dependence, the European industry is well positioned to ensure a stable supply of bauxite thanks to strategic foresight and long-term investments in economic partnerships. Consequently, our sector does not consider bauxite supply an imminent risk for the European value chain. We do consider the listing of bauxite as critical raw material as indirectly stressing the strategic importance of aluminium in the green and digital transition, however. Thanks to its unique properties, aluminium is the material of choice for clean technology producers. With increasing investments in recycling capacities and recycling rates well above 90% in some crucial applications, aluminium is a lighthouse example for a circular economy. With a view to address social and environmental risks linked to the sourcing of aluminium and its raw material, bauxite, the aluminium industry has been working with a range of stakeholders on a due diligence initiative to develop comprehensive standards that support responsible business practices: the Aluminium Stewardship initiative (ASI). Requirements on due diligence should build on existing voluntary due diligence schemes, like ASI, to promote transparency, alignment and cross-industry recognition.