

EEB feedback to the Open Public Consultation (feedback) to the EU's road map the review of the End-of-Life Vehicles Directive

In this document, the European Environmental Bureau (EEB) provides technical input and policy recommendations for the revision of the End-of-Life-Vehicles (ELVs) Directive, which aims to tackle the environmental impacts of ELVs treatment in and outside the EU. The recommendations outlined below can help the automotive sector move towards more responsible and circular business models.

Officially reported (and treated) ELVs amount to 6.5 million vehicles in the EU28 (incl. UK) in 2017. According to calculations published by the EC the whereabouts of 3.7 million is unknown. It is also unknown if these vehicles are (illegally) exported or (illegally) treated with the EU. Regardless of the problems of the unknown whereabouts the treatment of the ELVs raise several environmental challenges for EU governments. Large amounts of waste could be cut down if national authorities put in place the right policies and followed **the Waste Management Hierarchy outlined in the EU's Circular Economy strategy**. According to this strategy, waste streams should be tackled at the source by improving the **design of vehicles at production stage**, which would help reduce most of the environmental impact of ELVs. Waste prevention measures should also look to eliminate the toxic content of this waste stream in order to:

- Incentivise durability, upgradability and repairability;
- Facilitate high quality recycling and avoid the circulation of toxic substances.

The following issues are priorities for the EEB and its 168 member associations, which aim to bring the ELVs Directive closer to an overarching policy of the EU's Circular Economy.

Even if important, we have intentionally not covered the issues related to illegal exports, registration and de-registration of vehicles, as these are well covered by other stakeholders. Nevertheless we would like to draw attention to the recently published study of UNEP¹ which calls for regulatory action to avoid the export of old and substandard vehicles to developing countries, causing high air pollution and hazardous waste in the developing countries.

¹ <https://www.unep.org/news-and-stories/press-release/new-un-report-details-environmental-impacts-export-used-vehicles>

Reuse and preparation for reuse

The ELV's Directive should better reflect the Waste Management Hierarchy, where prevention is the top priority, followed by reuse. The current target does not give enough attention to reuse or preparation for reuse. Not only should this difference from recycling be visible in reporting the rates, but also a separate mandatory target for reuse should be considered to incentivise this activity. Catalunya for instance established a separate reuse target of 5% of weight for 2017, followed by 10% for 2021 and 15% for 2026. Currently the reported reuse rates in the EU differ between zero and > 30% (Eurostat). Obviously, it is necessary to establish an exchange on best practices to encourage and support reuse. There is also the need for a harmonised method for the calculation of reuse (currently two methods can be applied). Rules to incentivise reuse should also be harmonised across the EU to avoid market distortions.

We recommend binding requirements to ensure non-destructive disassembly and removal of all reusable modules from the vehicle before shredding, and to store them safely for reuse. The easiness and economic feasibility of dismantling before shredding depends on design for dismantling, therefore that should also be one of the minimum requirements for the design stage. Appropriate dismantling of layers and modules will also facilitate quality recycling. It also depends on a functioning IDIS (International Dismantling Information System) which would need to include such dismantling information (currently not included instead 'necessary' dismantling is addressed only). It might be necessary to consider additional funding schemes within the Extended Producer Responsibility (EPR) framework to finance those operations.

Recycling targets - calculation methodology

The calculation methodology for the targets should be transparent and the same across all Member States to reflect the progress of the sector in terms of reuse and recycling and to make data more reliable and comparative. Alignment of the definition of recycling with the Waste Framework Directive is needed: in contrast to the Waste Framework Directive the ELV Directive allows to account backfilling for recycling and the calculation point for the recycling is not defined. Any double calculation in two different registries should be avoided. Any residues coming from recycling operations should be deducted from the input to recycling in order to avoid inaccurate inflating of reported rates.

Additionally, a target for recovery should be taken out of the Directive. Instead we propose a ban of landfilling for shredder/ dismantling residues with organic matters. Reuse and recycling provisions should be better enforced, while recovery term is redundant and only drives incineration of materials, which does not improve circularity of the sector.

The recycling target today is high but is too general and does not incentivise the recycling of specific materials. It can be nearly achieved by recycling the easiest-to-recycle materials (i.e., steel and aluminum together representing around 70 to 73 percent of today's ELVs). In the shredding process, often valuable materials are mixed and become either alloys in metals (thus lost) or are directed to a mix of diverse plastic fractions. To ensure high quality recycling of other materials, especially light-weight critical raw materials it should be considered to complement the total recycling target with a set of material specific recycling targets rather than overall weight-based targets. A first step would be the strict enforcement of dismantling obligations of glass, larger electric and electronic components, and larger plastic parts.

Lastly, the vague definition and calculation of recycling and recovery opens door to much incineration and

backfilling of ELV materials that should instead be dismantled and recycled. This loophole is crucial to amend to bring the automotive sector closer to the circular economy.

Eco-design principles

Greater attention will need to be given to how the design of vehicles can influence their full life-cycle impacts. Eco-design style measures already applied in other product groups, e.g. the Ecodesign Directive for energy using products, demonstrate that minimum requirements can support broader material and energy efficiency objectives.

In the case of conventional combustion engines, the life cycle impacts have typically been most significant in the use phase. In this case, replacing an old vehicle with a new model might represent the most efficient option - but this would need to be assessed on a case by case basis. Data by the EEA for example shows that factors such as a growing demand for SUVs means that newer vehicles are not necessarily more efficient and, in fact, consume more. We suggest considering a stringent cap on CO₂ emissions per kilometer that will put an end to the placement on the market of more energy guzzling cars.

In contrast, the transition towards zero emission vehicles will likely shift the burden to the production stage. In this case, issues around design for reuse, remanufacture, refurbishment, repair and recycling will become more important than ever. Eco-design measures are expected to be developed for batteries for electric vehicles (EVs) in the context of the revision of the Batteries Directive. However, these measures will not address other parts of the vehicle, chassis, vehicle management system, etc. where extending mileage before the end of life of vehicles may present the most desirable option from a climate and environmental perspective.

Encourage recycled content

In line with article 4(1c) of the ELV Directive and to improve recycling, economic viability and the uptake of secondary raw materials (SRM), the revision of the ELVs Directive could set a mandatory recycled content rate. In a study for the European Commission, supporting the evaluation of the ELVD (2020) a number of self-commitments of car manufacturers are mentioned. E.g. Volvo aims to have by 2025 25% recycled plastic (out of all plastic) in every new car. VW reported in 2009 a total of 501 kg of recycled metals in a VW Golf. Material specific targets could be differentiated per material and staged over 2025 and then 2030 years.

However, the circulation of hazardous substances into new products should be avoided. The current article 4(1c) of the ELV Directive does not prevent this aspect, since more emphasis is put on quantity rather than quality, which might even incentivise the dilution of hazardous substances and their recirculation to new production (ie not well sorted plastics from shredder light fraction). The uptake of recycled contents should ensure the same standards apply for recycled materials as for virgin with regards to performance and chemical contents, and the potential incentives and obligations should clearly refer to this.

Extended Producer's Responsibility

It is recognised that large amounts of ELVs are treated outside the country where they were first used or even outside the EU. Producer Responsibility Organisations (PROs) should have access to information

regarding ELVs, while EU governments should make sure that information is exchanged transparently across all parties involved.

This is also stipulated in article 5 of Directive 2018/849, where the use of certificates is suggested – however not enforced well enough by member states.

For countries outside the EU, the situation might be more difficult, nevertheless, we encourage the Commission to consider any kind of secured system of financial flow where the EPR fee paid in the EU would follow the vehicle to its last end-of-life stage in order to finance its safe treatment, wherever it will take place.

EPR schemes for vehicles should closely follow the polluter-pays principle. Producers should ensure full traceability towards downstream users and pay an additional fee to cover the costs of treating difficult and hazardous substances, including the dismantling and proper segregation before shredding.

A harmonised chemicals inventory list

To improve the information flow from producer to recycler, a product information system shall be established in the form of an inventory of substances of concern, building on the existing sector database of the sector and supported by the new ECHA database. This would facilitate the end-of-life activities of ELVs' handlers. It should require a list of all substances used in a vehicle to improve safe dismantling of the problematic ones (ie, PVC, PU, batteries, etc). A similar inventory requirement exists in the EU Ship Recycling Regulation. Additionally, the Directive's provisions regarding safe pretreatment of components containing hazardous substances should be made stricter.

Product passport for vehicles

In line with announcement in the EU Green New Deal, digital product should be considered making accessible individual variables with regards to chemicals contents, as suggested in the chemical inventory. Such a product passport should also track a full bill of materials used to enhance further material loops, the key performances of the vehicle with regards carbon emissions, durability, reparability as well as the overall life cycle environmental footprint, starting with carbon footprinting but not restricted to it.

Electric vehicles' (EVs) batteries

The revision of ELVs Directive should align closely with the upcoming revision of the Batteries Directive, as the market continues to experience a rapid growth in electric vehicles use and related use of batteries. The revision of the ELVs Directive should set appropriate rules on dismantling and repair information (IDIS) provided to dismantlers by the producers and enable second life for batteries from ELVs.

In the current phrasing of the Directive the definition of "reuse" only considers the recovered components used for the same purpose. This strict definition may restrict the recovery of EV batteries and usage for other applications, thus potentially hampering the take-off of the second-life battery market.

Enforcement gaps and improvement

The revision of ELVs should remediate to some identified implementation gaps and remaining legal uncertainties. Without entering the detailed description of those issues largely covered by existing studies, the main implementation difficulties should be however reminded and built upon to ensure the improvements suggested along the above directions would be properly formulated and associated with the relevant conditions to enhance their implementation and enforcement.