

Public Consultation for the impact assessment supporting the review of the Directive 2000/53/EC on end-of-life vehicles and of the Directive 2005/64/EC on the type-approval of motor vehicles with regard to their reusability, recyclability and recoverability

Fields marked with * are mandatory.

Introduction

Context of the Consultation

What is the Directive 2000/53/EC on end-of-life vehicles about?

Every year, millions of vehicles in Europe reach the end of their life. If end-of-life vehicles (ELV) are not managed properly, they can be a threat to the environment as well as a lost source of millions of tonnes of materials. Directive 2000/53/EC on end-of-life vehicles (“ELV Directive” or ELVD) was adopted in 2000 to minimise the impact of end-of-life vehicles on the environment and to improve the environmental performance of all the economic operators involved in the life cycle of vehicles. This Directive contains provisions on the collection, treatment, recovery and recycling of end-of-life vehicles.

What is Directive 2005/64/EC on the type-approval of motor vehicles with regard to their reusability, recyclability and recoverability about?

This Directive (thereafter “3R type-approval” Directive) lays down conditions under which vehicles are authorised to be put on the EU market (through the type-approval procedure), with a view to ensuring that their component parts and materials can be reused, recycled and recovered in conformity with the minimum percentages of the targets set out in the ELV Directive. The Directive lays down specific provisions to ensure that the re-use of component parts does not give rise to safety risk or environmental hazards.

Why is the Commission performing a consultation?

The Commission completed an evaluation of Directive 2000/53/EC on end-of-life vehicles in 2021[*]. It identified various shortcomings of the ELV Directive. Following up on the evaluation, the European Commission is now working on an impact assessment in support of a possible revision of the ELV Directive. In view of the links between the ELV Directive and the “3R type-approval” Directive 2005/64, a

joint review of both Directives will be carried out.

[*] <https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/1912-End-of-life-vehicles-evaluating-the-EU-rules>

| How will the replies to this consultation be used?

Your replies to this consultation will feed both into the impact assessment and the actual proposal to revise the ELV. Your replies will be particularly valuable for validating assumptions and for understanding the possible impacts of measures under consideration.

| Structure of the questionnaire

You can contribute to this public consultation by filling out the online questionnaire. The questionnaire is accessible in all official EU languages and replies may be submitted in any of these languages as well. Nonetheless, contributions in English are encouraged to help process the survey more swiftly, given the possible delays and misinterpretations in translating replies submitted in other languages.

In the questionnaire, you will find questions concerning various problem areas identified in the evaluation of the ELV Directive and in other initiatives and addressed by the impact assessment.

The questionnaire has two main parts.

The first part of the questionnaire is about you. The information you provide in this section about your level of familiarity with the ELV Directive and the interest in the ELV sector. In the first part, questions marked with an asterisk are obligatory. The second part consists of the actual contribution to the consultation process. It is divided into two sections:

- The first section contains general questions, addressed to the general public, including those not familiar with the ELV Directive and the vehicle sector. It contains around 10 questions.
- The second section contains 33 more specific questions which target professionals familiar with the ELV Directive and the vehicle sector, but which can also be responded by anyone who so wishes.

For your convenience a full version of the questionnaire in PDF format can be downloaded below, should you wish to view the questions prior to submitting your contribution.

Download the Questionnaire to the Open Public Consultation

[Questionnaire to the Open Public Consultation.pdf](#)

Each part and section begin with a short introduction to provide some context to the questions that follow. If you have insufficient experience or knowledge in relation to specific questions, you can use the “I do not know/ no opinion” option. You may pause at any time and continue responding to the questionnaire later. Once you have submitted your answers, you can download a copy of your completed responses.

About you

* Language of my contribution

- Bulgarian
- Croatian
- Czech
- Danish
- Dutch
- English
- Estonian
- Finnish
- French
- German
- Greek
- Hungarian
- Irish
- Italian
- Latvian
- Lithuanian
- Maltese
- Polish
- Portuguese
- Romanian
- Slovak
- Slovenian
- Spanish
- Swedish

* Please select the statement that best applies to you

- I am an interested citizen with only a general interest in the area of end-of-life vehicles
- I have specific knowledge and/or interest about end-of-life vehicles

* I am giving my contribution as

- Academic/research institution
- Business association
- Company/business organisation
- Consumer organisation

- EU citizen
- Environmental organisation
- Non-EU citizen
- Non-governmental organisation (NGO)
- Public authority
- Trade union
- Other

* First name

Kamila

* Surname

SLUPEK

* Email (this won't be published)

slupek@eurometaux.be

* If you represent the private sector (Company or business organisation), please specify your area of interest / activity

You can select more than one box:

- Vehicle producer/ manufacturer/ suppliers/ importer
- Car dealer
- Repair shop
- Insurance company
- Dismantling sector, Authorised Treatment Facility
- Recycling sector incl. shredder and PST operators
- Import / export of used vehicles
- Other

* Organisation name

255 character(s) maximum

Eurometaux

* Organisation size

- Micro (1 to 9 employees)

- Small (10 to 49 employees)
- Medium (50 to 249 employees)
- Large (250 or more)

* Organisation name

255 character(s) maximum

Eurometaux

If you represent an economic operator, please specify your approximate annual turnover:

- <€100.000
- €100.000-1.000.000
- €1.000.000-10.000.000
- €10.000.000-50.000.000
- € >50.000.000

Transparency register number

255 character(s) maximum

Check if your organisation is on the [transparency register](#). It's a voluntary database for organisations seeking to influence EU decision-making.

61650796093-48

* Country of origin

Please add your country of origin, or that of your organisation.

- | | | | |
|--------------------------------------|--|-------------------------------------|--|
| <input type="radio"/> Afghanistan | <input type="radio"/> Djibouti | <input type="radio"/> Libya | <input type="radio"/> Saint Martin |
| <input type="radio"/> Åland Islands | <input type="radio"/> Dominica | <input type="radio"/> Liechtenstein | <input type="radio"/> Saint Pierre and Miquelon |
| <input type="radio"/> Albania | <input type="radio"/> Dominican Republic | <input type="radio"/> Lithuania | <input type="radio"/> Saint Vincent and the Grenadines |
| <input type="radio"/> Algeria | <input type="radio"/> Ecuador | <input type="radio"/> Luxembourg | <input type="radio"/> Samoa |
| <input type="radio"/> American Samoa | <input type="radio"/> Egypt | <input type="radio"/> Macau | <input type="radio"/> San Marino |
| <input type="radio"/> Andorra | <input type="radio"/> El Salvador | <input type="radio"/> Madagascar | <input type="radio"/> São Tomé and Príncipe |
| <input type="radio"/> Angola | <input type="radio"/> Equatorial Guinea | <input type="radio"/> Malawi | <input type="radio"/> Saudi Arabia |
| <input type="radio"/> Anguilla | <input type="radio"/> Eritrea | <input type="radio"/> Malaysia | <input type="radio"/> Senegal |
| <input type="radio"/> Antarctica | <input type="radio"/> Estonia | <input type="radio"/> Maldives | <input type="radio"/> Serbia |

- Antigua and Barbuda
- Argentina
- Armenia
- Aruba
- Australia
- Austria
- Azerbaijan
- Bahamas
- Bahrain
- Bangladesh
- Barbados
- Belarus
- Belgium
- Belize
- Benin
- Bermuda
- Bhutan
- Bolivia
- Bonaire Saint Eustatius and Saba
- Bosnia and Herzegovina
- Botswana
- Bouvet Island
- Brazil
- British Indian Ocean Territory
- British Virgin Islands
- Eswatini
- Ethiopia
- Falkland Islands
- Faroe Islands
- Fiji
- Finland
- France
- French Guiana
- French Polynesia
- French Southern and Antarctic Lands
- Gabon
- Georgia
- Germany
- Ghana
- Gibraltar
- Greece
- Greenland
- Grenada
- Guadeloupe
- Guam
- Guatemala
- Guernsey
- Guinea
- Guinea-Bissau
- Guyana
- Mali
- Malta
- Marshall Islands
- Martinique
- Mauritania
- Mauritius
- Mayotte
- Mexico
- Micronesia
- Moldova
- Monaco
- Mongolia
- Montenegro
- Montserrat
- Morocco
- Mozambique
- Myanmar/Burma
- Namibia
- Nauru
- Nepal
- Netherlands
- New Caledonia
- New Zealand
- Nicaragua
- Niger
- Seychelles
- Sierra Leone
- Singapore
- Sint Maarten
- Slovakia
- Slovenia
- Solomon Islands
- Somalia
- South Africa
- South Georgia and the South Sandwich Islands
- South Korea
- South Sudan
- Spain
- Sri Lanka
- Sudan
- Suriname
- Svalbard and Jan Mayen
- Sweden
- Switzerland
- Syria
- Taiwan
- Tajikistan
- Tanzania
- Thailand
- The Gambia

- Brunei
- Bulgaria
- Burkina Faso
- Burundi
- Cambodia
- Cameroon
- Canada
- Cape Verde
- Cayman Islands
- Central African Republic
- Chad
- Chile
- China
- Christmas Island
- Clipperton
- Cocos (Keeling) Islands
- Colombia
- Comoros
- Congo
- Cook Islands
- Costa Rica
- Côte d'Ivoire
- Croatia
- Cuba
- Curaçao
- Cyprus
- Haiti
- Heard Island and McDonald Islands
- Honduras
- Hong Kong
- Hungary
- Iceland
- India
- Indonesia
- Iran
- Iraq
- Ireland
- Isle of Man
- Israel
- Italy
- Jamaica
- Japan
- Jersey
- Jordan
- Kazakhstan
- Kenya
- Kiribati
- Kosovo
- Kuwait
- Kyrgyzstan
- Laos
- Latvia
- Nigeria
- Niue
- Norfolk Island
- Northern Mariana Islands
- North Korea
- North Macedonia
- Norway
- Oman
- Pakistan
- Palau
- Palestine
- Panama
- Papua New Guinea
- Paraguay
- Peru
- Philippines
- Pitcairn Islands
- Poland
- Portugal
- Puerto Rico
- Qatar
- Réunion
- Romania
- Russia
- Rwanda
- Saint Barthélemy
- Timor-Leste
- Togo
- Tokelau
- Tonga
- Trinidad and Tobago
- Tunisia
- Turkey
- Turkmenistan
- Turks and Caicos Islands
- Tuvalu
- Uganda
- Ukraine
- United Arab Emirates
- United Kingdom
- United States
- United States Minor Outlying Islands
- Uruguay
- US Virgin Islands
- Uzbekistan
- Vanuatu
- Vatican City
- Venezuela
- Vietnam
- Wallis and Futuna
- Western Sahara
- Yemen

- Czechia
- Lebanon
- Saint Helena
- Zambia
- Democratic Republic of the Congo
- Lesotho
- Ascension and Tristan da Cunha
- Saint Kitts and Nevis
- Zimbabwe
- Denmark
- Liberia
- Saint Lucia

The Commission will publish all contributions to this public consultation. You can choose whether you would prefer to have your details published or to remain anonymous when your contribution is published. **For the purpose of transparency, the type of respondent (for example, ‘business association, ‘consumer association’, ‘EU citizen’) country of origin, organisation name and size, and its transparency register number, are always published. Your e-mail address will never be published.** Opt in to select the privacy option that best suits you. Privacy options default based on the type of respondent selected

I agree with the [personal data protection provisions](#)

The Questionnaire

Section 1. General Questions

Scope of the ELV Directive

The scope of the ELV Directive currently covers certain types of vehicles (passenger cars, vans and small trucks below 3.5 tonnes). Other vehicles (motorcycles, trucks with a weight above 3.5 tonnes, buses...) are not covered by the Directive. There are therefore no EU requirements for the treatment of such vehicles, when they reach the end of their life. It is likely a large proportion are not recycled, reused or recovered.

1. Taking into account that currently not all vehicle are treated according to minimum EU treatment requirements at the end of their life, should the ELV Directive also apply to other types of vehicles?

- Yes
- No
- I don't know / no opinion

Design for circularity

The ELV Directive covers vehicles which have become waste and focuses mostly on the collection, treatment, recovery and recycling of this waste. Though eco-design is mentioned in the current ELV Directive, (Art. 4(1)(b)), provisions are not specific or measurable, and the mention has not resulted in real improvements at the EU level (Williams et al 2020)[*]. The “3R type-approval” Directive makes it obligatory

for new vehicles to comply with the requirements on recovery and recycling set out in the ELV Directive, in order to be authorised to be put on the market. There are no additional requirements pertaining to the design or manufacturing of new vehicles. The aim of the review process is to assess the extent of possible changes at the EU level which would best reflect the need for the automotive sector to move to more circular business models. This includes looking at the various phases of vehicle life cycle, i.e. from design and manufacturing until end-of-life treatment.

[*] Williams, R., Mehlhart, G., Baron, Y. Keeling, W. and Petsinaris, F. (2020), *Supporting the Evaluation of the Directive 2000/53/EC on end-of-life vehicles, prepared by Trinomics B.V., Oeko-Institut e.V. and Ricardo for the European Commission –DG Environment A.2 under framework contract No. ENV.F.1.FRA /2014/0063, available under: https://www.elv-evaluation.eu/fileadmin/elv-evaluation/user_upload/elvd_evaluation_final_report_aug2020.pdf*

2. In your view, should the EU legislation on vehicles be based on a life-cycle approach covering all phases of a vehicle from its design until the final treatment of vehicles at the end of their life?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree
- I do not know / no opinion

3. Should there be an obligation on vehicle manufacturers to improve circularity characteristics of a vehicle during the design phase?

- Yes
- No
- I do not know/no opinion

Please specify which design requirements would you consider most important when deciding on a vehicle purchase (more than one can be indicated):

- Increased vehicle reparability
- Increased reusability of vehicle parts
- Increase in recyclability of the vehicle materials (e.g., plastics, textiles, etc.)
- Increase in the use of recycled materials in vehicle
- I don't know/no opinion

4. Do you consider that implementation of any above mentioned design requirements would have an impact on the final price of a vehicle?

- I do not know / no opinion
- No, I do not think this would affect the vehicle price
- Yes, a vehicle with advanced design requirements/circular characteristics should cost less
- Yes, additional design requirements would increase the final price of a vehicle

5. Do you think that specific target(s) for reuse should be implemented separately from recycling with the aim to support the transition to the circular economy within the EU?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree
- I do not know / no opinion

Please explain why:

255 character(s) maximum

Material-specific recycling targets

In the current ELVD, there are no material-specific recycling targets but rather an annual recycling target based on the average weight of the vehicle. Many different materials are used in cars, but not all of them are subject to the same high standard of recycling in end-of-life vehicle treatment. Steel, aluminium, and copper are recovered to a large degree, but other materials are not.

6. In your opinion, the establishment of material-specific recycling targets in EU law would (more than one answer can be indicated):

- Increase the separate recycling of materials addressed by such targets
- Increase the quality of recycling of materials addressed by such targets
- Increase recycling costs
- Increase revenues from sale of recycled materials
- Other
- I do not know / no opinion

Please detail:

255 character(s) maximum

Recycled content targets

The [EU Green Deal](#), [the Circular Economy Action Plan](#), [the Plastics Strategy](#) and [the Chemicals Strategy for Sustainability](#) introduced by the European Commission in the last years all emphasize the importance of recycling and using safe secondary materials. They particularly refer to the need to consider rules making it mandatory for new vehicles to contain a certain amount of recycled materials (e.g. plastics), as this would help the uptake of recycled materials by the EU market.

7. Do you agree that more recycled plastics should be used in the manufacturing of new vehicles?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree
- I do not know / no opinion

M i s s i n g

v e h i c l e s

About 30 % to 40 % of vehicles disappear in the EU without notification to the national vehicle registries of EU Member States. The situation has remained unchanged for over a decade when the first study on this issue was published by the European Commission in 2011.

The gap in vehicle registration might have different reasons:

- Not all exported used vehicles are reported to the registries,
- Not all end-of-life vehicles are treated at authorized treatment facilities (ATFs), and substandard treatment can result in environmental hazard.

An additional problem is that several Member States have registration systems that allow the owner to temporarily or indefinitely declare the vehicle as not intended for use on public roads. When this is combined with unregistered changes of ownership (temporarily de-registered vehicle is sold in the meantime), it is not possible to prove the whereabouts of the vehicles.

8. In your view, should a charge be applicable to the owner during periods of temporary de-registration to ensure that owners follow their obligation to report any change of ownership or export to authorities?

- Agree
- Neutral

- Disagree
- I do not know / no opinion

9. In your view, should better traceability be established between the EU Member States' registration systems on a legal status of a vehicle until its final deregistration?

- Agree
- Neutral
- Disagree
- I do not know / no opinion

Illegal export of ELVs and export of used vehicles

The export of ELVs to non-OECD countries is prohibited. However, it is difficult to distinguish on a case by case basis if a vehicle is a used vehicle or an end-of-life vehicle (ELV). The waste shipment correspondent [guidelines No 9](#) on Shipments of Waste Vehicles provide guidance on this issue, but are not binding. Customs and inspection services cannot check every vehicle for export, and perform controls based on a risk strategy. Illegal exports of ELVs remain an important problem, which create environmental harms in the countries of destination.

In addition, while the export of used vehicles (which are not waste) is legal, it can also generate environmental (air pollution) problems and undermine road security in the countries of destination (when exported vehicles are not roadworthy) (For more information see UNEP (October 2020): Used Vehicles and the Environment - [A Global Overview of Used Light Duty Vehicles: Flow, Scale and Regulation.](#))

10. Which of the following options is in your view the most adequate to overcome the problem of 'illegal exports' of ELVs to non-EU countries, as well as the problem posed by the export of used vehicles which are not considered as waste? (more than one reply is possible)

- Enact new conditions for the export of used vehicles, so that export is only possible upon presentation of a valid roadworthiness certificate
- Enact new conditions for the export of used vehicles, so that export is only possible for vehicles which comply with certain environmental criteria (for example, air pollutants or greenhouse gas emission limits)
- Enact new conditions for the export of used vehicles, so that export is only possible for vehicles below a certain age or a certain mileage (e.g. below 200 000 km)
- Not enact any new conditions for the export of used vehicles, but rather focus on illegal export of ELVs, through enhanced enforcement efforts, better traceability and making the criteria for distinguishing them from used vehicles binding under EU law

- Enact new conditions for the export of used vehicles (as presented in the suggestions above) and better enforce the ban on export of ELVs
- Not take any specific new initiative at EU level relating to export of ELV or used vehicles
- I do not know / no opinion.

Section 2. Specific Questions

Scope of the ELV Directive

As indicated above, a large number of vehicles are not covered by the ELV Directive (motorcycles, large trucks, buses...)

Against this background, the European Commission services are considering whether the scope of the ELV Directive should be extended to cover additional types of vehicles, especially trucks and motorcycles, with the aim of increasing resource efficiency of such vehicles and preventing environmental impacts associated with their life cycle.

11. What could be the advantages of extending the scope of the ELVD to other vehicles, e.g. to motorcycles and trucks? (more than one option may be selected)

- Prolonged lifetime of reused parts from the additional vehicles
- Increased reparability of the additional vehicles
- Increased recyclability of materials contained in the additional vehicles
- Increased resource recovery from the additional vehicles
- Avoidance of environmental harms to the environment thanks to minimum requirements for end-of-life treatment of the additional vehicles
- Better control over intra- and extra-EU trade and export of the additional vehicles
- Other
- I do not know / no opinion

12. Which could be the disadvantages of extending the ELVD scope to other vehicles (e.g. motorcycles and trucks)? (more than one option may be selected.)

- Higher burdens for SMEs
- These other vehicles (e.g. motorcycles and trucks) have features which are different from the vehicles covered by the ELV Directive, so that the provisions of the ELV Directive are not adapted to these other vehicles
- Such other vehicles are not compatible with current end-of-life treatment facilities (shredder size)

- It will be difficult to achieve the targets for reuse and recycling due to the composition of these other vehicles
- Other
- I do not know / no opinion

13. If motorcycles were included within the scope of the ELV Directive, in which areas would compliance for motorcycles be difficult? Where compliance difficulties might arise, please explain why and indicate for how many years such issues could be expected to persist?

- Bans on use of hazardous substances
- Recovery and recycling target of 85 %
- Material-specific recycling targets (currently under consideration)
- Reuse target (currently under consideration)
- Recycled content target (currently under consideration)
- EPR obligations (currently under consideration)
- Reporting obligations, e.g. on vehicle fleet, on reuse and on recycling (currently under consideration)
- New obligations aimed at addressing the problems posed by missing vehicles and illegal export (currently under consideration)
- Other
- None
- I do not know / no opinion

14. If trucks (> 3.5 tonnes) were included within the scope of the ELVD, in which areas would compliance for such trucks be difficult? Where compliance difficulties might arise, please explain why and indicate for how many years such issues could be expected to persist?

- Bans on use of hazardous substances
- Recovery and recycling target of 85 %
- Material-specific recycling targets (currently under consideration)
- Reuse target (currently under consideration)
- Recycled plastics content target (currently under consideration)
- EPR obligations (currently under consideration)
- Reporting obligations, e.g. on vehicle fleet, on reuse and on recycling (currently under consideration)

- New obligations aimed at addressing the problems posed by missing vehicles and illegal export (currently under consideration)
- Other
- None
- I don not know / no opinion

H a z a r d o u s

s u b s t a n c e s

Article 4(2) of the ELV Directive sets out a prohibition on the use of certain hazardous substances in vehicles, as well as an exemptions to this prohibition and a mechanism to regularly review these e x e m p t i o n s .

Two main areas have been identified as challenging in relation to these provisions:

- the opportunity to keep such substance prohibitions in the ELV Directive and add prohibitions for new hazardous substances in vehicles, and how this relates to other EU legislation; and
- the mechanism for reviewing the exemptions.

On the ELV exemption mechanism, the evaluation of the Directive concluded that it does not provide details as to how often existing exemptions should be reviewed for scientific and technical progress nor whether they should be limited in duration. Other mechanisms were considered, such as that the [Directive on the Restriction of Hazardous Substances in Electrical and Electronic Equipment \(RoHS\)](#) where stakeholders are required to apply for exemption renewals with detailed justification. RoHS was also mentioned due to its exemption criteria, which go beyond whether ‘a substance has become scientifically and technically avoidable or not’, by considering coherence with Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals ([REACH](#)) and other aspects in the justification of exemptions (e.g. comparative environmental and health performance of substitutes; socio-economic impacts of substitution and the availability of substitutes).

Possible measures could be considered addressing how and in which cases additional substances are to be banned in vehicles as well as how to improve the existing exemption mechanism.

15. Should the revised ELV Directive ban hazardous substances in vehicles, taking into account that restrictions on hazardous substances are also specified in other pieces of EU legislation (notably REACH)?

- Yes, substances currently prohibited under ELV Directive should continue to be covered under that Directive, but other substance bans should be addressed elsewhere (e.g. under REACH legislation).

- Yes, substances currently prohibited under ELV Directive should continue to be covered under that Directive, and additional substances that should be prohibited in vehicles should also be added to the Directive (please indicate which one(s) in the box below)
- No, all substances to be banned from use in vehicles should be specified elsewhere, such as under chemical legislation like REACH.
- I do not know / no opinion

16. Which, if any, additional criteria for evaluating exemptions from the list of substance prohibitions are necessary to allow a more differentiated assessment? Please indicate which criteria should be integrated into the exemption assessment mechanism (more than one can be indicated):

- None, the criterion under ELVD is sufficient ('the use of these substances is unavoidable based on technical and scientific progress')
- Criterion on scientific or technical impracticability of substitutes
- Criterion on substitute reliability, i.e. over time of a vehicle life or under certain environmental conditions
- Criterion on comparison of the use of the restricted substance with that of available substitutes in terms of environmental and health impacts (i.e. total negative environmental, health and consumer safety impacts caused by substitution are likely to outweigh the substitute's total environmental, health and consumer safety benefits)
- Criterion on the availability of substitutes
- Criterion on socioeconomic impacts of substitution
- Criterion on potential adverse impacts on innovation
- Criterion on life-cycle assessment impacts
- Other

Please detail:

255 character(s) maximum

Criteria relevant for an exemption are:

- Technical & economic feasibility
- Socio-economic impact
- Full life cycle consideration for the existing substance & substitute
- Balance between chemicals management, climate & circularity
- Car safety

The European Commissions' Circular Economy Action Plan (CEAP) calls for the revision of EU legislation on end-of-life vehicles, through, among other things, measures to reduce waste by linking design issues to end-of-life treatment. It requires the promotion of more circular business models in the automotive industry, incentivizing innovation and eliminating waste and pollution, among others.

Though eco-design is partially addressed in the current ELVD (Art. 4(1)(b)), provisions are not specific or measurable, and this has not resulted in real improvements at the EU level. Nonetheless, some vehicle manufacturers are already investigating how to introduce more circularity into the automotive business (for example, use of recycled and recoverable materials such as recycled plastics and textiles, considerations on reuse and remanufacture of specific components). This serves as a starting point to consider if certain measures lead to broader benefits when applied evenly in new vehicles placed on the EU market.

Changes towards more widely adopted innovative (eco-)design of products could promote high quality recycling, in particular for specific parts and components that should be removed safely and treated properly. For example:

Increased use of lightweight materials in vehicles, e.g. composite plastics, carbon-fibre, and fibre-reinforced materials, may necessitate more up-to-date eco-design and recycling strategies to be included in the ELV Directive. Increased use of electric components in vehicles – these are usually not removed from the vehicle prior to shredding, though removal would allow targeting recycling toward specific materials used in such components, such as Critical Raw Materials[*]. Increase in number of electric vehicles placed on the market, and the risk of these not being handled properly at the end of life. Concerns have been raised in this context, in particular regarding the increase in use of electric components and difficulties in the removal and/or transport of the battery. Use of substances of concern in vehicle manufacturing should not hinder the ability to achieve high quality recycling, as indicted in the recently adopted EU Chemicals Strategy for Sustainability.

For a vehicle to be type-approved, [Directive 2005/64/EC on the type-approval of motor vehicles with regard to their reusability, recyclability and recoverability](#) requires that manufacturers prove that they meet the ELV Directive targets on reuse, recycling and recovery. In this sense, eco-design measures could be addressed under the ELVD and/or under the 3R Type-approval Directive.

[] Materials of high economic importance as well as with high supply risk, monitored by the European Commission as Critical Raw Materials - CRM)*

17. Measures are being considered to require vehicle manufacturers to design certain parts of a vehicle so that they can be dismantled more easily at the end of life in order to be reused/ remanufactured/ recycled/ recovered. Please indicate for which of the following parts/ materials such dismantling requirements should be introduced (more than one can be selected):

- Printed circuit boards with a surface greater than 10 cm²
- Other electrical and electronic components
- Traction batteries
- Magnets (electric drive motors)
-

Plastic parts above a certain size

- Plastic parts of specific composition (e.g. PP, PE)
- Plastic parts containing certain additives
- Composite plastics, carbon-fibre, and fibre-reinforced materials
- None
- I do not know / no opinion
- Other

Please detail:

255 character(s) maximum

Dismantling of big aluminium parts before shredding should be required, e.g. bumpers, doors etc.

18. Components and materials contained in vehicles sometimes contain problematic substances (i.e. substances of concern) as well as valuable- and Critical Raw Materials. The removal of such components prior to shredding processes can contribute to higher level of waste management through separate reuse and/or recycling or through depollution of fractions prior to further processing. When developing new vehicles or redesigning existing models, which measures would facilitate the identification and separate dismantling of such components and materials? More than one answer can be indicated.

- Label or imprint on the respective parts
- Provision of general accessible dismantling instructions to ATFs (e.g. through IDIS)
- Parts must be designed so that they can be easily disassembled from ELV with standard tools available to ATFs
- Manufacturers are to develop, and make accessible to ATFs, procedures and (where lacking also tools) to ensure safe and efficient (effort needed is proportional to possible benefits thereof) removal at end-of-life
- For substances that significantly hinder recycling, the part and content of the substance must be indicated through an entry in a data base accessible to ATFs (e.g. IDIS)
- For parts or materials with a high feasibility for re-use and recycling of Critical Raw Materials, this must be indicated through an entry in a data base accessible to ATFs (e.g. IDIS)
-

The removal of specific parts (e.g. batteries) will not result in damage to the part or its surroundings and will not be dangerous for the dismantler's/ recycler's health

Other

19. When developing new vehicles or redesigning existing models, which measures could facilitate the repair and remanufacturing of vehicle parts? More than one option may be selected.

Manufacturers must ensure that:

- Parts can be easily disassembled from an ELV with standard tools available to repair shops.
- The expected time required for dismantling of certain parts from an ELV has been tested and an average time range can be specified.
- The removal of specific parts (e.g., batteries) will not result in damage to the part or its surroundings.
- Instructions for dismantling parts with a high potential for remanufacturing/ repair are accessible to authorized facilities (e.g. through IDIS).
- Other measures
- I do not know / no opinion

The "3R type-approval" Directive 2005/64/EC is the main piece of EU legislation linking the design of new vehicles and their reusability, recyclability and recoverability. Its main purpose is to ensure coherence between the type approval procedures for new vehicles on one hand, and the obligations contained in the ELV Directive with respect to the prohibition of hazardous substances, treatment of ELVs and the re-use, recycling and recovery targets.

The Directive 2005/64/EC provides a number of obligations that need to be complied with by the Member States and car manufacturers on how to demonstrate that new models comply with the relevant obligations under EU law on reusability, recyclability and recoverability. In some instances, the wording used in the Directive 2005/64/EC lacks precision and leaves room for interpretation, which could jeopardise the attainment of the objectives of the ELV Directive, particularly when it comes to the reuse, recycling and recovery targets. The definitions of "reusability", "recyclability" and "recoverability" in Directive 2005/64/EC refers to the "potential" for "reusability", "recyclability" and "recoverability". It is not clear how this potential is calculated. Potential recycling seems quite different from actual recycling for example and there is a risk that the provision could be interpreted quite broadly.

Directive 2005/64/EC (Article 6) also states that, in order to obtain the type approval, car manufacturers "shall recommend a strategy to ensure dismantling, reuse of component parts, recycling and recovery of materials" and that this strategy "shall take into account the proven technologies available or in development at the time of the application for a vehicle type-approval". The reference to proven technologies "in development" also creates some uncertainty as to the fact that these technologies will be available when the cars in question will become ELVs. This is important when considering that the market

readiness of technologies to enable reuse and recycling does not necessarily reflect the actual capacities of the ELV waste management sector to dismantle, reuse and/or recycle such parts in practice, when the respective vehicle becomes an ELV.

20. Given the above, what are your view on the coherence between the ELV Directive and 3R type-approval Directive?

- I consider that the present articulation between the two directives works well.
- I consider that the situation is not satisfactory.
- I do not know / no opinion

21. As part of the documentation that vehicle manufacturers provide for the type approval compliance check, manufacturers could be required to provide detailed information on specific materials and technologies used in a vehicle and the actual capacities available to European ELV waste management operators to support dismantling, reuse and/or recycling. Please specify for which types of materials such information should be required:

- Composite materials such as glass / carbon-fibre-reinforced plastics
- Rubber
- (Large) plastic parts with fillers and coatings
- Foams
- Textiles
- PVC and plastics with flame retardants
- Nanomaterials
- New materials not yet deployed in vehicles put on the EU market by manufacturers
- Critical Raw Materials
- Other
- None
- I don not know / no opinion

Please indicate which ones:

255 character(s) maximum

Please detail:

255 character(s) maximum

Information on all materials should be provided. On CRM it has to be noted that the list is updated every 3 years and the status of raw materials may change over time (from critical to non-critical and vice versa).

22. In the case of a vehicle containing innovative materials or technologies, which are difficult to recover, should the issuing of a certificate of compliance by the Member States competent authorities (pursuant to Article 6 of the “3R type-approval” Directive) be conditioned with the vehicle manufacturer providing evidence of actual recycling capacities for that material/ technology? This could require showing that ELV waste management operators have capacities to recycle innovative technologies and/or materials or shall have such capacities within a given number of years from the date of access to market of the vehicle in question.

- Yes, this solution should be explored at EU level
- Yes, this solution should be explored at EU level, but, in its first years of implementation, such requirement should only be to demonstrate that such capacity is available for a certain volume of vehicles, which would increase over time
- No, such a requirement should not be introduced
- I do not know / no opinion

23. The certificate of compliance issued by the Member State competent body needs to remain valid for at least two years, after which its renewal for a further two years may be subject to further compliance checks. In the future, for certificates that had been previously issued when actual recycling capabilities did not exist, their renewal should be conditioned on whether evidence can be provided about actual recycling capabilities in the EU or their short-term development. Do you agree with this statement?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree
- I do not know / no opinion

Definition of recycling

At present, most vehicle dismantlers do not carry out pre-shredder dismantling of materials such as glass, large plastic parts, the wiring harness and electronic components. This step is often skipped because of the low value of the material that does not compensate the cost of its removal. There is no clear obligation in the ELV Directive to remove these parts before or after shredding. However, for some materials, high

quality recycling could be achieved if certain materials and components were removed prior to shredding. Though this could be addressed through material-specific targets (see separate section), it is also a result of the ELV Directive not sufficiently differentiating between waste treatment options in terms of their hierarchy and fulfilment of the recycling and reuse targets. The ELV Directive defines recycling as ‘the reprocessing in a production process of the waste materials for the original purpose or for other purposes but excluding energy recovery. Energy recovery means the use of combustible waste as a means to generate energy through direct incineration with or without other waste but with recovery of the heat.’ In this sense, the definition for recycling excludes energy recovery but does not exclude backfilling, as is the case under the Waste Framework Directive (WFD). As a result, some MS include shredder heavy fraction (SHF) used for backfilling[1] operations in the calculation for their ELVD reuse and recycling target. This statistical inclusion as recycled material is not in line with the Waste Framework Directive (WFD) definition of recycling. To address this issue, an alignment with the WFD definition for recycling should be considered.

In this context, the differentiation between high quality recycling and low-quality recycling should also be considered. A JRC report from 2020 proposed defining the quality of recycling as ‘the extent to which, through the recycling chain, the distinct characteristics of the material (the polymer, or the glass, or the paper fibre) are preserved or recovered so as to maximise their potential to be re-used in the circular economy’ (Gran et al. 2020)[2]. It is further explained that ‘higher quality secondary raw materials are necessary for expanding the use of recycled content in broader product applications, enabling a more circular economy’. To this end, the definition of the minimum quality of recycling is of relevance for ELV recycling targets and shall be looked at in relation to the investigation of future recycling targets.

[1] Article 3(17a) of the amended WFD (Directive 2018/851) defines backfilling as ‘any recovery operation where suitable non-hazardous waste is used for purposes of reclamation in excavated areas or for engineering purposes in landscaping. Waste used for backfilling must substitute non-waste materials, be suitable for the aforementioned purposes, and be limited to the amount strictly necessary to achieve those purposes’.

[2] Grant A., Cordle M., Bridgwater E. (2020), Quality of recycling: Towards an operational definition, prepared by Eunomia Research and Consulting for the Joint Research Centre (JRC), ISBN 978-92-76-25426-3

24. Do you agree that aligning the definition for recycling under the ELV Directive with that of the WFD would support a higher level of material recovery?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree
- I do not know / no opinion

25. What would be the impact of an alignment of the definition of recycling in the ELV Directive with the definition contained in the WFD (more than one can be indicated)?

- Higher quality recycling of various materials (e.g. where a material is recycled that was previously backfilled)
- 10% higher total amount of high-quality recycling of various materials
- Higher costs for waste management of ELVs
- Current targets cannot be met
- No benefits expected
- No costs expected
- Other
- I do not know / no opinion

* **Contribution publication privacy settings**

The Commission will publish the responses to this public consultation. You can choose whether you would like your details to be made public or to remain anonymous.

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Only organisation details are published: The type of respondent that you responded to this consultation as, the name of the organisation on whose behalf you reply as well as its transparency number, its size, its country of origin and your contribution will be published as received. Your name will not be published. Please do not include any personal data in the contribution itself if you want to remain anonymous.

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Organisation details and respondent details are published: The type of respondent that you responded to this consultation as, the name of the organisation on whose behalf you reply as well as its transparency number, its size, its country of origin and your contribution will be published. Your name will also be published.

Separate reuse target

Reuse or preparation for reuse is the second priority in the waste hierarchy, after prevention, while recycling is the third priority[1]. Vehicles are complex products made up of various components that can be reused to save resources after the vehicle has reached the end of its life. For certain components, reuse is already common in some Member States, as these used spare parts offer an economic value that can be easily realised. The share of reuse reported by the Member States varies between zero and more than 30 %. Part, but not all, of this difference might be caused by different reporting methodologies.

To support reuse in the ELV sector, France established in 2018 an obligation in line with its Circular Economy legislation that car repair shops must make an offer to repair a vehicle with used parts in parallel to the offer to repair it with new spare parts[2].

However, more and more components are 'locked' with electronic keys, for example, a car radio (or even a gear) and cannot be reused without the electronic key.

Some stakeholders are of the opinion that harmonized rules should apply for selling used parts from vehicles, also applicable to online sales. One idea is to require that information about the part be provided to the customer (e.g. information on the origin of the spare part (i.e. Vehicle Identification Number, VIN), the identity of the dismantler and if it is refurbished or not).

[1] Directive 2008/98/EC on Waste (Waste Framework Directive), as last amended on 30 May 2018

[2] Arrêté du 8 octobre 2018 relatif à l'information du consommateur sur les prix et les conditions de vente des pièces issues de l'économie circulaire dans le cadre des prestations d'entretien ou de réparation des véhicules automobiles

26. In your view which of the following measures would contribute to increase the reuse of vehicle parts? More than one answer can be indicated.

- Implementation of a separate reuse target by weight of the reused part compared to the weight of the vehicle.
- Implementation of separate reuse targets for specific vehicle components such as tyres, combustion engines, gears, bumpers etc.
- Obligation for repair shops to offer customers used spare parts as an alternative to new ones (see the example of France above).
- Obligation for ATFs to remove certain parts of ELVs before shredding to help increase reuse (if yes, see next question).
- Obligation for car manufacturers to enable (e.g. the ATFs) unlocking parts so that they can be reused and dismantled.
- Obligation for car manufacturers to provide the dismantling centres (ATFs) information about which parts can be used as identical parts in other models of the manufacturer or even other brands.
- Establishing rules that the origin of a spare part must be demonstrated and can be tracked.
- No change of the current situation.
- Other
- I do not know / no opinion

27. If you are of the opinion that ATFs shall remove certain parts of ELVs before shredding to help to increase reuse (see question above), which parts should be considered?

- Car headlight
- Car taillight
-

- Bumper
- Exterior mirror(s)
- Doors
- Tyres
- Wheels
- Combustion engine
- Gearbox / transmission
- Alternator
- Clutch
- Actuator
- Other

Material-specific

recycling

targets

In the current ELV Directive, there are no material-specific recycling targets but rather an annual target based on the average weight of the vehicle. Many different materials are used in cars, but not all of them are subject to the same high standard of recycling in end-of-life vehicle treatment. Steel, aluminium and copper are recovered to a large degree, but other materials are not. Certain materials, such as plastic and glass, account for only a small portion of the vehicle weight and they are often discarded and/or only recovered after shredding, leading to reduced quality of the recovered material. Rare earth elements (REEs) are used for permanent magnets, Platinum group metals (PGMs) are used for catalytic converters and printed circuit boards, Gallium is used for lightning equipment and integrated circuits, Magnesium and Niobium are used for metal alloys. While high-quality recycling can often be technically feasible and environmentally beneficial (e.g. of glass, selected plastics, electronic components), it is in most cases not performed, as its profitability is marginal. In its project on the 'Sustainable use of Materials through Automotive Remanufacturing to boost resource efficiency in the road Transport system (SMART)', the Commission explored the contribution of end-of-life (EoL) practices to increasing the resource efficiency of vehicles, notably through remanufacturing. The information on the SMART project is available here: <https://publications.jrc.ec.europa.eu/repository/handle/JRC123261>.

In parallel, the total weight of such materials is increasing (e.g. plastic parts, electronics), meaning that without establishing their recycling, maintaining a high rate of recycling shall become difficult. Addressing certain materials separately through the inclusion of material-specific recycling targets could increase the amount of materials that could be recycled at high quality.

Measures are under consideration that aim to improve the recovery of other metals such as zinc, some specific critical raw materials (CRM), various plastics and glass, since their recovery promises a significant amount of avoided negative environmental impacts and their recycling could technically be well implemented. To achieve this, material-specific recycling targets could represent an alternative to the current situation, or they could be combined with a general target related to the overall vehicle weight. Alternative (or additional) measures could introduce a maximum content of certain materials in the fractions to be shredded or stipulate the removal/dismantling of certain components prior to shredding.

28. Would material-specific recycling targets have an impact on innovation?

- Yes
- No
- I don not know / no opinion

Please specify how material-specific recycling targets would impact innovation:

- Increase innovative eco-design of products
- Increase high-quality recycling
- Increase innovative recycling opportunities and processes
- Other

29. Materials and parts are sometimes removed prior to shredding processes to allow their separate recycling. Should there be a mandatory requirement in the ELV Directive to remove certain parts from ELVs prior to shredding to promote their high-quality recycling in proper waste streams (e.g. WEEE for all electric components)?

- Yes
- No
- I do not know / no opinion

Please indicate which parts should be considered:

- Bumpers
- Specified amount (as target) of plastics per end-of-life vehicle
- Fuel tank
- High voltage management systems
- Main cable harness
- Steering wheel
- Electric (traction) motor
- Clutch
- Actuators
- Electric and electronic parts
- Other

Please detail:

255 character(s) maximum

Dismantling of big aluminium parts before shredding should be required, such as bumpers, doors etc.

30. Some of the raw materials used in vehicles manufacturing (like rare earths, platinum group metals, gallium, magnesium, niobium) have a high economic importance, important environmental costs as well as high supply risk. They are monitored by the European Commission as Critical Raw Materials - CRM). In your opinion, should there be specific requirements to guarantee a minimum recovery re-use or recycling rate of the CRMs contained in vehicles? Please rate the different options provided in the table from 0 (do not agree) to 4 (completely agree)

	0	1	2	3	4
a. I think that there is no need to focus on CRM	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
b. Specific criteria to facilitate the recovery of CRM should be established (e.g., design for recycling)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
c. Minimum recycling targets for CRM contained in vehicles should be established	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
d. Although it is important to recover CRM, the review of the ELV and 3R type-approval Directives is not the correct policy tool to address this issue	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Recycled content targets

Whereas the ELV Directive (Art. 4(1)(c)) requires Member States to encourage integrating an increasing quantity of recycled material into vehicle manufacturing, it does not provide further specification as to how this should be done. Actions already taken in this direction have been mainly voluntary and reflect individual initiatives of specific vehicle manufacturers. Though the use of recycled materials is common for certain materials (e.g. lead from batteries, alloys such as aluminium and steel), integration of recycled plastics can be less straightforward.

Today, over 90 % of plastic recyclates used for manufacturing new cars are pre-consumer recyclates, where growth potential is very low. While pre-consumer recyclates result directly from production and often consist of only one sort of polymer, post-consumer recyclates result from actual products, most of the time after the use phase.

There are challenges in the wide adoption of post-consumer recyclates in vehicle manufacturing, for which materials are required to fulfil various technical specifications. This is, among others, also a result of the time lag between vehicle manufacture and vehicle waste management. After the long use-phase of a car, the plastic materials can degrade, or they may contain hazardous additives which prohibit recycling. Whether a substance contained is considered hazardous may also change over time as substance properties are assessed under e.g., chemical legislation (e.g., REACH, CLP). Still, there are several important examples of manufacturers routinely using post-consumer recycled plastic in new vehicles, showing that such practice is feasible with good results without hampering the technical specifications of the manufactured parts.

The price competition between new and recycled materials in manufacturing new vehicles also hampers full development of the recycling sector. The volatile prices of new materials such as plastics obstruct investments in the sector, as they strongly relate to the oil price. The EGD and CEAP encourage to look at the whole value chain of materials and keep them in the circular use, which has become of increasing importance in the context of potential of remanufacturing, which is defined as an industrial process that consists of prolonging the operational life of products (in this case vehicles and vehicle components), thus supporting the efficient and circular use of materials, where especially Critical Raw Materials (CRMs) are of key importance.

Against this background, the development of minimum targets for use of recycled content of materials (including Critical Raw Materials) is under consideration in the ELV Directive.

31. Do you agree with including in the ELV Directive a recycled plastics content target for new vehicles?

- Strongly agree
- Agree
- Neutral
- Disagree
- Strongly disagree
- I do not know / no opinion

32. Recycled plastics targets are likely to increase the price to manufacture vehicles, at least in the first years. Please indicate what type(s) of costs you expect to be affected (multiply responses possible):

- None
- Research and development costs
- Production costs
- Recycling costs
- Verification costs
- Other
- I don not know/no opinion

33. In the case of a post-consumer recycled content target for plastics in new vehicles, what target would you consider to be feasible in 2025, 2030, 2040 and 2050?

considering the current mass of plastics in vehicles (~200 kg in new vehicles)

Target of post-consumer recycled plastic per vehicle (expressed in % of the mass of plastics in vehicles)	2025	2030	2040	2050
Minimum 5%	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Minimum 10%	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Minimum 25%	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other*	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
I do not know/no opinion	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

**If you selected other, please detail:*

255 character(s) maximum

34. What are, in your view, the main obstacles for implementing a recycled content target for plastics in new vehicles? Multiple answers are possible.

- Legal issues
- Quality of recycled plastic
- Technical requirements of vehicle parts (e.g. components re-approval)
- Hazardous materials
- Lack of infrastructure in waste management and recycling of plastic
- Availability of recycled postconsumer plastics
- Additional costs
- Verification/proof of compliance with the targets
- None
- I do not know / no opinion

Please justify your selection

255 character(s) maximum

35. Please indicate other materials for which recycled content targets should be considered and explain shortly why (multiple materials can be indicated).

- Glass
- Steel alloys
- Aluminium alloys
- Rare earth elements (REEs)
- Platinum group metals (PGMs)
- Gallium
- Magnesium
-

Niobium

- Other Critical Raw Materials
- Copper alloys
- None
- I do not know / no opinion
- Other

Sustainable and ethical sourcing of raw materials

The EU Green Deal, the Circular Economy Action Plan, the New Industrial Strategy for Europe and the Critical Raw Materials Action Plan introduced by the European Commission in the last years emphasize the importance of sustainable raw materials, where responsible sourcing and carbon footprint of raw materials are important parts.

36. Do you see a need for policy/regulatory measure regarding requirements on ethical sourcing of raw materials contained in vehicles?

- Yes
- No
- I do not know/no opinion

If so:

What type of policy/regulatory measure regarding requirements on ethical sourcing of raw materials contained in vehicles would be needed?

- No regulatory intervention is necessary
- Voluntary requirements on ethical sourcing of raw materials
- Mandatory requirements on ethical sourcing of raw materials
- Financial instruments (preferential loans, grants)
- Training

37. Do you see a need for policy/regulatory measure regarding requirements on carbon footprint of raw materials used in vehicles?

- Yes
- No
- I do not know/no opinion

Data accessibility for reuse and recycling

Vehicle producers currently provide depollution and dismantling information for free to authorised treatment facilities (ATFs) via the International Dismantling Information System (IDIS) data base. In order to increase

the reuse rate, it is – as reported by ATFs – important to have additional information about:

- In which vehicle brands and models a dismantled component can be used: often components can be used in diverse brands and models; however, this information is not available to the ATFs and should be included in IDIS.
- Dismantling and reuse procedures: many of today's parts have a digital component. If the proper procedure for digital (de)installation is not followed correctly, perfectly functional parts will not be (re) usable.
- Dismantling batteries from EVs: this is in principle addressed in IDIS but the procedure is very time consuming (often more than 1 hour). Many ATFs are far from equipped with the knowledge and tools for dismantling these batteries. If more EVs are directed to ATFs, it will make the business of ATFs possibly unprofitable, as long as revenues for recycling do not compensate the additional effort.

Information on substances of concern contained in ELV parts and materials is also not sufficiently available. Such information is important for the waste phase to allow identification and removal of fractions requiring depollution that could otherwise hinder recycling. Information is partly available for substances prohibited under the ELV Directive or when it is mandatory to depollute certain materials according to the ELV Directive. However, additional information on, for example, additives contained in various polymers, could support the recycling of plastics.

38. What additional information should be provided free of charge by producers to ATFs? Multiple answers are possible.

- Information on where dismantled components can be reused (which vehicle or brands, models and types).
- Information on how to correctly remove parts with digital components and how to appropriately prepare them for reuse/ installation.
- Information on the duration / effort for obligatory depollution
- Information on the duration / effort for dismantling components for reuse
- None
- I do not know/no opinion

Please explain your views:

255 character(s) maximum

39. Please indicate whether you agree with the following statement:

To support fair market conditions for the reuse of components, it is important that manufacturers provide the above information in a fair and non-discriminatory manner at reasonable prices (if any) to all ATFs.

- Strongly agree

- Agree
- Neutral
- Disagree
- Strongly disagree
- I do not know/no opinion

Please explain your views:

255 character(s) maximum

40. To support plastic recycling, for which substance groups should vehicle manufacturers be obliged to provide information on content?

- Flame retardants
- Stabilisers
- Plasticisers
- Lubricants
- Only those on Global Automotive Declarable Substance List ([GADSL](#))
- Other
- I do not know/no opinion

Extended Producer Responsibility (EPR) System

As outlined in the Evaluation of the ELV Directive[1], the Directive currently includes some elements of EPR but does not take into account the general minimum requirements for extended producer responsibility schemes, as defined in Article 8a of the Waste Framework Directive. Notably, there is no clear provision in the ELV Directive requiring producers to cover the costs of the treatment of ELVs necessary to meet the objectives set out in the Directive. As demonstrated in a study by ADEME[2], under current conditions, dismantling and depollution of vehicles is not economically viable for a large number of authorised treatment facilities (ATF). It is also known that, due to economic constraints of ATFs, some less favourable environmental options for recycling are preferred instead of high-quality recycling. This applies in particular to:

Glass, which is rarely removed prior to shredding, thus not supporting high-quality recycling; Large plastic parts (e.g. bumpers, dashboard, fluid containers); Tyres; and Electric and electronic components, which are usually shredded prior to separating out specific materials for recycling.

It is expected that the effort for dismantling and storing Li-ion batteries is not compensated by potential revenues from recyclers. This is even more true if batteries are at risk for thermal runaway, e.g. after an accident. The management of the shredder light fraction (SLF) and shredder heavy fraction (SHF) in post shredder treatment (PST) might also not be economically viable. However, management is necessary to achieve the recycling and recovery targets of the current ELVD and to ensure removal of hazardous

[1] European Commission, SWD (2021)60: Evaluation of Directive (EC) 2000/53 of 18 September 2000 on end-of-life vehicles

[2] Ademe 2015. Terra SA – Deloitte – BIOIS – Évaluation économique de la filière de traitement des véhicules hors d'usage – 2015 – Synthèse. 40 p.

41. Please indicate whether you agree with the following statement:

To ensure that a high quality of recycling is achieved, it is necessary to compensate the authorised treatment facilities (ATFs) for their dismantling efforts that, under the current conditions, are not economically viable.

- Yes
- No
- I do not know/no opinion

42. During dismantling, several types of wastes must be separated and disposed of. Do you think that the producers should compensate the ATFs for their dismantling efforts (e.g. batteries from EV) and for appropriate treatment and disposal of these wastes?

- Yes
- No
- I do not know/no opinion

Missing vehicles

As reported in previous studies, about 30 % to 40 % of vehicles disappear without notification to the national vehicle registry ('missing vehicles'). The situation has remained unchanged for over a decade, when the first study on this issue was published by the European Commission in 2011.

This gap in vehicle registration might have different reasons:

- Not all exported used vehicles or exported ELVs are reported to the national registries of Member States;
- Not all ELVs treated domestically are reported. It is unknown to what extent this unreported domestic treatment is performed in authorised treatment facilities (ATFs) (and in compliance with the legal requirements) or in substandard facilities. In some cases, treatment at a non-authorised facility leads to illegal trade.

Detailed proposals on how to improve reporting on the whereabouts of ELVs were assessed in 2016, including comprehensive stakeholder involvement. For the results and recommendations, please refer to the study [Assessment of the implementation of Directive 2000/53/EU on end-of-life vehicles \(the ELV Directive\) with emphasis on the end-of-life vehicles of unknown whereabouts.](#)

43. The following options were recommended in the study mentioned above. Which of them do you think should be considered in the proposal for the revision of the ELV Directive? More than one answer can be indicated.

- Harmonized definition and application of terms in the ELV Directive and in the Directive on the registration documents for vehicles (1999/37/EC).
- Conclusive list of conditions when a permanent cancellation of a vehicle registration shall apply.
- Requirement that authorised treatment facilities (ATFs) issue a certificate of destruction (CoD) through an electronic notification procedure to the registration authority along with the delivery of the CoD to the last owner (hardcopy or electronic statement).
- Establishment of a notification procedure between Member States (MS) when a CoD is issued for a vehicle last registered in another Member State.
- Adopt a provision/ set an overriding rule or principle that (indefinite) off-road notification cannot automatically lead to a cancellation of the vehicle registration.
- Require the owner of a vehicle to report changes in ownership to the registration authority during temporary deregistration (i.e. for 'off-road notification').
- A monthly administrative fee (at minimum to recover the related administrative effort) is charged for the entire duration of the temporary deregistration (i.e. 'off-road notification').
- Apply penalties for the owners in case of breach of regulations/rules.
- Establish the rule that a premium is paid when a CoD is issued, funded by public budget.
- Establish the rule that a premium is paid to the last owner when a CoD is issued, funded by a deposit system.
- Establishment of recycling fees (collected from the manufacturer / importer) used for research on ELV recycling and support of the ATFs, shredders and post shredder technologies to comply with the legal obligations
- Establish the rules that a continuous (yearly) fee remains in place (even if the vehicle is not used on public roads) until evidence is provided by the last owner for the whereabouts of a vehicle (by demonstrating a CoD, a contract of purchase, export document or police statement that the vehicle is stolen)
- Establish fines for illegal dismantling or for selling an ELV to illegal dismantlers
-

Establish fines for dealers dealing with dismantled (used) spare parts from non-authorized facilities.

I do not know/no opinion

Other Comments

If you wish to add further information, comments or suggestions within the scope of this questionnaire, including examples of good or bad practice, you may submit a position paper of up to 6 pages below or by emailing ELV-Directive-Revision@oeko.de.

Please upload your file

Only files of the type pdf,txt,doc,docx,odt,rtf are allowed

Contact

env-elv@ec.europa.eu