# Regulation on Circularity Requirements for Vehicle Design and on Management of End-of-Life Vehicles

## Comments of Environmental Action Germany (DUH)

DUH welcomes the EU's intention to require the car industry to adopt a sustainable design and production of cars, as well as to ensure end-of-life vehicles (ELVs) are managed sustainably, as part of the Regulation on Circularity Requirements for Vehicle Design and on Management of End-of-Life Vehicles (VDEoL). With the shift to electric vehicles in the automotive sector as part of the green transition, the environmental impacts of vehicles will be significantly attributed to their production and end-of-life phase, particularly regarding the sourcing and recovery of critical raw materials (CRM). To reduce the negative environmental impacts linked to the production, service life and end-of-life treatment of vehicles, it is necessary to set ambitious requirements to ensure resource-efficiency during the whole lifecycle. Therefore, it is laudable that requirements regarding ecodesign, repair, reuse of parts and components, recycled content, collection and improved recycling at the end of vehicles' life are targeted in the Regulation. DUH also supports the introduction of an EPR system with a whole life cycle perspective. It is furthermore welcomed that information requirements shall be improved through a circularity vehicle passport. Nevertheless, in DUH's view, there are weak points in the draft. Particularly, proposed measures to promote lightweight vehicles, durability, repair and reuse of parts and components fall too short. Also, measures to promote recycled content in vehicles, e.g. for steel, aluminum and rare earths, improved design-for-circularity and high-quality recycling are deficient. Poor requirements regarding ecodesign and repair are particular problematic due to the exclusion of vehicles from the Ecodesign for Sustainable Product Regulation (ESPR), highlighting a significant weakness in regard to ecodesign.

To ensure that the initiative meets its objectives in terms of the sustainability of the automotive and recycling sectors and aligns with relevant European legislation and the Waste Hierarchy, we would like to comment on general drawbacks of the regulatory proposal and possible loopholes from a circular economy perspective within the proposed VDEoL framework.

### About DUH

*Environmental Action Germany (Deutsche Umwelthilfe – DUH) is a recognized German environmental and consumer protection organization, which has been campaigning for resource conservation and consumer interests since 1975. DUH is politically independent, non-profit and it campaigns on a national and European level. It is for example renowned for its role in uncovering the Diesel Scandal and in establishing a deposit system for non-refillable beverage containers in Germany. Within its Department Circular Economy, DUH promotes waste prevention, responsible consumption and high resource efficiency. For more information, please visit: www.duh.de/englisch*

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# 1. General Requirements

## a. Timeframe and Scope

While the extended scope and general objectives of the regulation can be applauded, as a whole, the presented proposal is unfit to reach these goals, since most concrete measures and their implementation are delegated to future secondary acts, thus delaying the circularity shift by five to six years. It seems preferable not to delay discussions and decisions to future legal acts, where they can already happen within this process. This applies to, for example, the setting of recycled content targets for steel and other materials, declaration formats for other materials including CRM or the development of Vehicle Circularity Passport criteria. This is particularly problematic since the finalization is now further delayed because the draft has not been finalized before the elections.

Concerning Art. 2 defining the scope of the legislative proposal, we demand a scope extension to all vehicles to guarantee no vehicle type is excluded from provision regarding their circularity and end-of-life treatment. It is not clear why exemptions in Art. 2 (2) – (4) have been made. This is particularly serious since vehicles have been decided to be generally excluded from the ESPR.

## b. Vehicle size reduction

Currently, there is a trend towards larger vehicles such as SUVs, which is highly problematic.[1] Therefore, the design of vehicles must give more consideration to reduce the size and weight of vehicles, e.g. through ecodesign requirements for vehicles or fleets or incentive systems via EPR fees (Eco-modulation). In general, measures to reduce size and weight of vehicles have considerable benefits for resource efficiency and may outcompete measures at the lower levels of the waste hierarchy (e.g. recycling). Additionally, member states should additionally take measures to promote smaller and lighter vehicles, e.g. through taxes and parking fees.

## c. Contradicting ambition between product regulations

This proposal for product regulation on vehicles stands in contrast to recent agreements on product regulations between EU institutions such as the EU Batteries Regulation. Examples are a missing declaration on the carbon footprint or the misalignment with other product passports. There also appears to be a reluctance to proactively set more specific targets for recycling efficiency and recovery of materials comparable to the ambition of the EU Batteries Regulation (Art. 71). Provisions on recycled content targets for steel, aluminum, and rare earths in VDEoL proposal are postponed to future implementing and delegated acts, while the EU Batteries regulation already defines specific ambitious targets for several materials. Also, the VDEoL lacks provisions for fulfilling due diligence obligations within the vehicle supply chain, whereas the EU Battery Regulation outlines due diligence obligations for economic operators, which include compliance mechanisms for responsible sourcing and management of batteries throughout the supply chain. Lastly, it needs to be mentioned that current provisions made by the Commission in the draft are likely to be even more weakened in the further legislative process.

## d. Deviating requirements for product passport

Regarding the product passport, we believe that there is a misalignment between the proposed circularity passport for vehicles and the product passport proposed under the ESPR. As currently proposed, the circularity passport in the VDEoL proposal does not go very far and does not require e.g. the disclosure of the $CO_2$-footprint of vehicles or the share of renewable energy used in production. These requirements also deviate from those in the EU Batteries regulation. This approach in the VDEoL draft is not compre-

hensible, especially since the proposal itself recognizes that the 'automotive sector is an important contributor to the use of energy and material resources by the Union, and hence to the generation of greenhouse gases'. Relevant climate impact of vehicles is generated during production, especially with the increasing use of battery electric vehicles. Therefore, it is reasonable to align the product passport requirements with those of other climate-relevant products that require carbon footprint disclosure such as buildings. Additionally, the interoperability of the relevant passports and respective criteria should be ensured (especially regarding batteries or electronics).

## e. Substances of Concern

To make sure that the proposal actually diminishes environmental harm within production and end-of-life of vehicles, the way to address Substances of Concern (SoC) needs to go beyond only restricting heavy metals such as lead, mercury, cadmium and hexavalent chromium as well as delegating possible future restrictions to a hypothetical future REACH. The current approach is a missed chance to integrate a unique system to convey information on SoC and ignores the issue of substances that hinder circularity beyond safety consideration.

## f. Responsibilities of online platforms and fulfilment service providers

The illegal imports of non-compliant spare parts and components for vehicles should also be addressed as part of the VDEoL. A major concern regarding the effectiveness and compliance with the eco-design requirements of spare parts and components for vehicles in the European market lies in the critical role of online platforms and fulfilment service providers, who must actively ensure adherence to environmental and consumer protection regulations during sale. We therefore suggest that online platforms must check whether there is a liable actor in the EU who guarantees compliance with the eco-design requirements of spare parts and components for vehicles before sale is enabled. Furthermore, online platforms must check whether the requirements of the regulation are met before spare part and components are put online for sale. Fulfilment service providers must be subject to similar obligations. If no such checking obligations are set, massive amounts of illegal spare parts and components may be imported into the EU market.

## g. EPR obligation to non-EU trading partners

Regarding the illegal export of old vehicles, the proposal introduces specific criteria, and tries to limit the export of vehicles that are deemed unsuitable for EU roads due to excessive energy consumption and safety concerns, by making "roadworthiness" a prerequisite for export. We welcome this in principle. However, as the export of roadworthy and reusable vehicles will continue to happen, the new law risks creating an unfair double regime for non-EU countries, because the exported vehicles will not be covered by the EPR fees. In other words: EPR systems will delegate the waste management of vehicles exported outside the EU to the receiving countries but keep the fees that were charged to financially support that process. This puts an unfair burden on the waste management systems of receiving countries outside the EU, which may be less equipped to deal with all waste fractions of a complex product like a vehicle. Therefore, the fees paid by producers for end-of-live treatment of exported vehicles need to be made available for EoL-management in receiving countries. Additionally, information needs to travel with the vehicle and, as part of the circularity vehicle passport, to receiving countries outside EU as well.

## 2. Explanatory Memorandum

### a. Legal basis

Given the context of the proposal to regulate circularity requirements and end-of-life management of vehicles, we claim to consider **Article 192** of the Treaty on the Functioning of the European Union (TFEU) as the legal basis for the proposal instead of Article 114. This would allow member states to go beyond the provision in the regulation (similar to EU Batteries Regulation). While Article 114 TFEU is associated with the regulatory framework 3R type-approval Directive 2005/64/EC aiming to ensure the proper functioning of the single market, the ELV Directive 2000/53/EC, which deals with end-of-life vehicles, has an environmental legal basis under Article 192 TFEU. Article 192 TFEU provides a specific framework for addressing environmental objectives, including waste management. Since the new proposal aims to regulate vehicle design, collection and treatment at the end of life, which is all closely tied to environmental considerations, using Article 192 as the legal basis aligns more appropriately with the environmental focus of the proposed regulation.

## 3. Circularity requirements concerning vehicle design (Chapter II)

In the following, DUH would like to contribute some specific statements regarding the circularity requirements under the VDEoL.

### a. Durability

Article 31 and 32 in Chapter II, addressing circularity requirements, solely provide a warranty of removed used, remanufactured, and refurbished parts. However, a notable drawback is the absence of provisions regarding the overall durability of components and the whole vehicle. This lack of emphasis on durability represents also a significant disadvantage for reuse. Durability is a key aspect for sustainability of vehicles, parts and components because it mitigates environmental impacts from resource consumption, production and disposal through a longer lifetime. Vehicles, components and parts should be constructed in a way that they are not sensitive against specific defects or rapid wear. We demand that **durability requirements** are integrated into the VDEoL, particularly because the ESPR will not cover vehicles and vehicle parts and components. As a first step, we demand that OEMs are obliged to publish the durability and reparability of vehicles, parts and components and the underlying method for this calculation. Furthermore, a standardized method to assess durability and reparability and to identify key parameters that are important for durability must developed in a delegated act. In addition to obligatory durability product requirements, a **warranty** by the producer assures the customer that the vehicle, relevant parts and components will function for a certain period of time and also confirms the promise of quality. Long warranties can therefore help to extend lifetimes of vehicles. However, it is important that producers should give clear preference to repair over replacement with parts and components in a warranty case. Newly purchased spare parts and components should have a separate warranty. Additionally, the Circularity Vehicle Passport (CVP) and the Internet should contain instructions for a long service life of the vehicle and the battery (e.g. for electric vehicles, instructions for low battery usage), information on necessary maintenance work, warranty conditions and simple instructions for action in the event of typical malfunctions and maintenance work.

### b. Reparability and Reusability

Reparability and Reusability are important criteria through which the vehicle component producer can influence lifetime of their vehicles and components. Chapter II only marginally includes any design provisions on reparability. Art. 4 defines the way how a vehicle should be constructed, so that it is reusable to a minimum percentage by mass, however, design for reusability and reparability requires more than that.

Modular design, low requirements for specific tools and good availability and un-discriminatory pricing of wear/ spare parts and components are basic conditions for reparability and reusability. Typical smaller repairs and maintenance work should be possible for **independent repair companies as well as end-users**. Producers should provide detailed information online for both target groups to facilitate repairs, e.g. through repair instructions, video trainings, troubleshooting tools, exploded drawings etc. For end-users, at least simple repairs such as exchange of light bulbs or exterior mirrors should be enabled.

The **availability of wear/ spare parts** and components is an essential prerequisite for reparability. Relevant criteria are the availability period, the procurement channel, the delivery time and the price. Wear and spare parts, as well as components, should be available for 20 years, ensuring accessibility for independent repairers and, with few restrictions, end-users. They should be available no later than two weeks after ordering and should be priced at a reasonable proportion relative to the cost of a new vehicle. Besides wear and spare parts, also **software** should be integrated into the provision concerning spare parts. Continued functionality as well as necessary upgrades or fully compatible new software must be provided for the vehicle and all components at for least 20 years without limiting functionality or security.

With regard to design to enable **removal and replacement of certain parts** and components defined in Art. 7, provisions should not be limited to the waste phase/end-of-life of the vehicle. All parts and components need to be removable and replaceable during use of the vehicle as well, especially for the purpose of repair. It also makes sense to regulate the replacement times or the number of steps for replacement of certain parts so that the effort required for the replacement remains relatively low – also for independent workshops - and a modular design is promoted. This **list of parts** includes batteries, front and rear lights, mudguards, other parts of the vehicle shell, clutch, brakes, shock absorbers, exhaust, sensors, bumpers, crash management system. Tools for vehicle repair should be categorized into class A for the most common and simplest repairs, and class B for more complex tasks, to minimize the need for brand-specific tools, ensuring that most repairs can be performed with non-proprietary tools.

Additionally, information on removal and replacement of parts and components and materials is currently limited to waste management operators and repair and maintenance operators (Art.11 (1)). However, information on components and parts that are easy to repair should also be made available to end-users e.g. exchange of wipers and light bulbs.

As depicted in Art. 11, producers shall provide repair and maintenance operators access to information on "*(f) digitally coded components and parts in a vehicle, where such coding prevents their repair, maintenance or replacement in another vehicle*". **Part pairing** could create major barriers to independent and self-repair. This allows producers to control revenues from parts and maintenance. Producers often argue that this practice is justified by safety and security reasons, but no strong evidence supports this argument. Part pairing is an unacceptable practice that harms the independent repair ecosystem, hinders consumer choice, extends repair times, and can lead to early product obsolescence and unnecessary waste. Thus, software techniques that prevent the replacement of parts or the usage of third-party parts must be banned completely.

DUH proposes to integrate the existing approach of a **repair score** into the VDEoL e.g. into the product passport to support **consumer information**. This can be aligned with the existing repair score in the new regulation for smartphones and tablets (2023/1669). It should at least include the **assessment parameters**: spare part availability, software updates, duration/ disassembly depth for typical repair works, required tools and provided repair information. Consumers should be informed about this these parameters through via the score on the CVP and via the internet. Repair instructions for typical defects, information on replacing wear/ spare parts and components and exploded drawings must be available free of charge on the Internet (or via the vehicle passport) for at least 20 years after the end of production.

Lastly, the Commission should provide additional provisions on **battery reparability** such as replaceability at cell level to fill the gaps in the EU Batteries Regulation. As removability is addressed in the VDEoL, reparability of EV-batteries needs to be added.

## c. Recyclability

Recyclability is an important sustainability criterion since it contributes to reduce the use of primary resources. Therefore, recyclability must be promoted, although durability, reparability and reusability should be prioritized. Important measures supporting recyclability are to ensure a good demountability of materials and components (e.g. though avoidance of material composites) and through respective instructions, usage of uniform materials, good labelling of materials (as proposed in Art. 12 of the proposal) and low proportions of pollutants and impurities. For large-sized parts made from plastic, uniform polymers should be used. Homo-, copolymers and blends are acceptable if they do not affect recyclability. Vehicles should have a recyclability of at least 95 % (we understand recyclability as the share of a vehicle that can be regained as secondary material to replace primary material (in the same sector) after the vehicle was officially collected and treated in a regular recycling process). Recycling should always be the last option if possibility of reuse was assessed and is not possible.

With regard to the methodology for calculation and verification of the rates of recyclability of a vehicle in Art.4 (3), pyrolysis and gasification[2] shall not be included in the recyclability assessment when it comes to plastics. Additionally, there should be environmental minimum requirements for accepted recycling techniques (e.g. concerning maximum energy demand, minimum yield, and maximum emissions)

## d. Use of critical raw materials and recycled materials

If possible, the use of **critical raw materials should be minimized** for the production of vehicles in order to reduce social and environmental impacts in mining countries. To address this, a monitoring system should be established to better track the CRM requirements in the production of vehicles e.g. for batteries, catalyzers and permanent magnet motors (analogous to the declaration methodology of the carbon footprint or recycled content in the EU Batteries Regulation Articles 7 & 8). This should include disclosure of all CRMs used, the recycled content, and the countries of origin of the primary raw materials, for example, through a publicly accessible part of the circularity vehicle passport, in the product advertisement and on the internet. Measures in the future may built upon this monitoring to promote the use of particularly resource-efficient materials as soon as they become established in the market. This may also contribute to limiting the size of vehicles or batteries in general. To achieve further improvements in this matter, transparency is a crucial building block, making it necessary that all producers reveal used materials for production as well as its origin.

To reduce dependency on virgin critical raw materials, **minimum recycled content targets** in vehicles and components are necessary. Usage of recycled material can considerably contribute to reduce environmental impacts from material sourcing. For vehicles, already secondary materials such as plastic, steel, aluminum, copper, gold, silver and platinum are available on the marked, but its material circulation and wide application must further be promoted in the automotive sector. The Critical Raw Materials Regulation Art. 29 is planning to define recycled content targets for rare earths in permanent magnets with > 0,2 kg in vehicles. We assess the currently proposed recycled content target for plastics of 25 % as not sufficient. It is necessary, to increase this target for plastics and, additionally, to make plastic type specific provisions. Furthermore, recycled content targets must be expanded to additional material groups such as aluminum/ alloys, magnesium, steel, rare earths and copper. Good proposals for recycled content targets can be found in the Impact Assessment under Policy Option PO2C. It is also necessary to establish financial incentives in order to promote the use of recyclates in vehicles (e.g. tax adjustments).

Regarding the calculation method for recycled content provisions, **only post-consumer recyclates** (PCR) should count towards recycled content targets. Including also post-industrial waste may enable easy circumvention of defined provisions. Additionally, claiming 'PCR- only' helps to avoid recyclates that are available anyway being diverted to meet targets, without actually recycling more. Only an exclusion of PIR in the definition of recycled content will have the intended promoting effects on the expansion of the recycling infrastructure. At least the PIR/PCR share should be shown transparently.

Regarding the definition of recycled content targets for plastics, we like to note that "recyclates" from **pyrolysis and gasification** should not be counted towards these targets. DUH and several other European NGOs classify these techniques as "chemical recovery" because they only recover the feedstock for plastics production and this cannot be counted as recycled[2]. Additionally, we warn that mass balance with free allocation is allowed to fulfill recycled content targets because this may disadvantage environmental beneficial mechanical recyclers and poses considerable risk for consumer protection[3]. We propose to follow the segregation or batch-level mass balance approach with proportional allocation and oppose a free trading system for recyclates. Also, the use of **biobased plastics** is in the overall ecological view no environmentally-friendly alternative to fossil based plastics, and should therefore not be promoted by political instruments such as targets.

## e. Standardization

A better development of **standardized parts and components of vehicles** is required to allow a more efficient use of resources. A standardization of (wear) parts such as tires, brake pads, windshield wipers, light bulbs, batteries, chargers or bumpers can facilitate repair and maintenance work and reduce environmental impacts through production and diminish waste. The use of standardized wear/ spare parts in different vehicles also supports the long-term availability of these parts and facilitates the fulfillment of respective availability obligations for producers. In addition, the subsequent upgradeability of vehicles with newly developed wear/ spare parts is supported.

Standardization should be developed as far as possible within producers product lines, but also cross-producers. Producers should be motivated to use standardized parts and to publish technical specifications of vehicles and components to facilitate standardization.

## f. Energy efficiency (for BEVs)

Charging and discharging of an electric vehicle must be as efficient as possible. Energy efficiency should not decrease significantly due to the aging of the vehicle. The charger should have a low energy consumption if the battery is not connected (stand-by). However, the most decisive aspect with respect to energy consumption is probably related to the total energy consumption of a vehicle during its production and use. The commission should integrate obligatory requirements on energy efficiency for battery electric vehicles. Such requirements may be integrated into regulations $CO_2$ emission performance standards for cars and vans and should set incentives for a general reduction of energy consumption from BEVs. From DUH perspective it is necessary to set an absolute upper consumption limit to prevent excessive electricity consumption by individual vehicles.[4]

To improve transparency, producers should inform customers about the environmental advantages of small, lightweight, and energy-efficient cars. Additionally, incentives are necessary to encourage the reduction of vehicle size and weight, as larger and heavier vehicles need significantly more resources to produce. Also, consumers must be informed on energy-efficient use of the electric vehicle battery as well as the ecological advantages of using renewable energy. There needs to be a differentiated consumption labeling according to electricity consumption and the CO2 footprint of the battery, and a corresponding classification of BEVs, in order to make electricity consumption and the emissions associated with production transparent for consumers at the time of purchase.[4]

### g. Production Process & Carbon Footprint

During production, environmental impacts through raw material extraction, energy consumption, carbon emissions, water use, industrial processing and waste generation should be minimized as much as possible. Producers should only be able to claim the use of renewable energy if they can prove this via direct connection to the renewable energy plant or a contract demonstrating a temporal (in real time or at least every hour) and geographical link between energy supply and use. Producers should also demand the use of high environmental standards (e.g. use of renewable energy) from suppliers and subcontractors. Particularly, transparency for customers about environmental emissions of vehicles should be much more promoted (e.g. through the promotion of reliable labels, on the Internet and the CVP) to enhance environmental purchasing decisions. DUH criticizes sharply that no obligatory carbon footprint limit is defined or targeted for the production of vehicles, parts and components in the current draft.

## 4. Information and labelling requirements (Chapter III)

### a. Product passport and labelling

We vote for a digital product passport for vehicles allowing quick environment-related information, e.g. via a QR-code. The Circularity Vehicle Passport (CVP) defined in Art. 13 is a pale equivalent of the Batteries Passport and the CVP will be introduced too late (84 months after entry into force).

Several relevant provisions are missing, such as the carbon footprint or concrete information for reparability. DUH claims that the CVP should provide information on the producer, environmental/ carbon footprint, expected lifetime, relevant repair information (see section 3.b.), product services, environmental-friendly usage/ disposal behavior, fuel/ energy consumption, contained resources and pollutants, recycled content and take-back procedure. Additionally, details about Substances of Concern (SoC) and their locations in vehicles should be included, as such substances need to be traceable with regard to high quality recycling. The CVP must also provide information on defects and repairs that can be updated by workshops and reuse actors and be read by consumers. It must also be linked to the battery passport. Offering of vehicles should only be allowed if this comprehensive environmental information is provided.

In addition to the realistic fuel/ energy consumption (see section 3.f. on energy consumption labeling) , the expected lifetime and reparability (see repair score section 3.b.) of the vehicle should be displayed clearly visible during offers (in analogy to current repair labels on energy labels such as for smartphones and tablets (2023/1669)). Thus, consumers are able to better identify less environmentally harmful vehicles through mandatory labelling. Also, public procurement should give mandatory preference to the less environmentally harmful vehicles through a database or the development of reliable labels.

### b. Circularity Strategy and Producer-financed information campaigns

Art. 9 introduces a Circularity Strategy for producers including elements listed in Annex IV such as a non-technical description of the actions planned to ensure that the vehicles belonging to the vehicle type continue to meet the legal requirements referred to in Articles 4 to 7 throughout their production. DUH welcomes the introduction of a circularity strategy. However, the requirements are too unspecific and non-binding. They currently fail to sufficiently address the responsibility of producers to exploit the potential of resource reduction through decreasing the total demand of vehicles. In addition, producers should include strategies to diminish total environmental footprint of their fleet, particularly through **reducing average vehicle size**, fuel/ energy demand and increasing ecodesign and repair conditions. Regarding elements of the circularity strategy in Annex IV Part A, reuse and remanufacturing measures should be prioritized, explicitly addressing how producers plan to increase the use of reused or remanufactured

parts or components. The Commission should be empowered to establish, through a Delegated Act, targets for the share of reused or use of remanufactured parts or components for the production of new vehicles either by brand, by producer or by type.

In addition, **information campaigns** on the potential to reduce resource consumption by reduction of passenger car numbers and their weight/size must be launched. Aims of such campaigns should be to contribute to changing consumption patterns, sensitizing consumers (e.g. to switch to public service) and promoting resource efficiency (e.g. by preferring smaller cars). Such campaigns need to be adequately financed by producers, as this follows the polluter pays principle. The content creation needs to be done by independent third parties to avoid interest placement of producers.

## 5. Management of end-of-life vehicles (Chapter IV)

### a. Ensure extended producer responsibility

A comprehensive framework of Extended Producer Responsibility (EPR) must be established to minimize environmental impacts from production and treatment of vehicles. The current legislative framework puts an emphasis on obligation and costs related to managing end-of-life vehicles that should be covered by financial contributions of producers. However, to follow a more comprehensive circular approach, they should also strongly enhance collection, repair and reuse of vehicles, parts and components and take responsibility to raise awareness among consumers for environmentally friendly behavior and promote ecodesign. DUH therefore welcomes the establishment of an EPR system in the draft in Art. 16, but claims for a wider extension of producer obligations. Apart from the provisions on ensuring collection in accordance with Art. 23 and treatment in accordance with Art. 27, producers should take full **responsibility for the entire life-cycle of vehicles**, from eco-design and repair to collection, reuse and end-of-life.

Particularly, an EPR system that promotes eco-design and smaller vehicles is necessary (also known as "**eco-modulation**" measures in which fees are directly related to the environmental impact of the vehicles). DUH therefore welcomes first approaches to establish such a system in Article 21. In contrast to the criteria for eco-modulation proposed in the draft, the fees should not mainly focus on recycling, but should prioritize parameters such as total size, durability, reparability, use of reused parts and recyclates as well as carbon footprint. If such ecomodulated fees are made also visible for consumers (visible fees) such system may contribute to enhance ecodesign and consumer behavior. The possibility of setting effective eco-modulation measures is another argument to obligate producers to fulfill EPR via collective PROs. Lastly, with regard to Art. 17 on the creation of a register to monitor compliance of producers with the requirements set out in chapter IV on management of end-of-life vehicles, it should be envisaged to introduce such a register for compliance with eco-design requirements as well.

Concerning Art. 18 on producer responsibility organisations (PROs), it is advisable to consider full product responsibility through obligatory **collective schemes**, as implemented also as an option for member states in the Batteries Regulation. Such rule has advantages because it facilitates e.g. enforcement, the set up of ecomodulation rules or to hold non-EU producers accountable. For EPR schemes of components that already exist, e.g. for tyres in Ireland, a good connection between the EPR schemes must be guaranteed.

To enhance liability of the fulfilment of legal obligations (e.g. recycling/ reuse targets) producers must be made **individually or collectively (through PROs) responsible to fulfil such targets**. In addition to existing targets, producers must also be obliged to fulfil separate binding reuse targets e.g. based on the list of parts in section 3.b.

With regard to EPR fees, they should cover all environmental impacts from vehicles, e.g. also treatment costs during export (see section 1.g.). Producer responsibility should only end once the vehicle has been

verifiably recycled to a high standard. To ensure this high-quality recycling at end-of-life – when reuse is no longer possible – producer responsibility should be directly linked to the product passport.

In general, DUH recommends, to better harmonize and interlink EPR rules on different products. This is useful because especially in the field of vehicles there are many connections to other product regulations such as electronics, batteries and textiles.

A practical example of an EPR system managing well electronic equipment in vehicles can be seen in Switzerland. Car producers are required to participate in an EPR system that encompasses Waste of Electrical and Electronic Equipment (WEEE) and one for End-of-Life Vehicle (ELV) management. They are obligated to provide free take-back and disposal services for appliances and components from vehicles under the VREG[5]. This ensures that electronic components are processed and recycled in specialized facilities rather than ending up in car shredding plants. To implement a similar approach, a corresponding revision of the WEEE Directive would be necessary.

## b. Reuse

In general, reuse and repair must strongly be favored as preferred strategies before recycling and shredding. The legislative text currently still favors recycling over these strategies and is therefore not in line with the waste hierarchy.

Art. 34 states that member states shall ensure that waste management operators meet the respective reuse/recovery target of 95 % and reuse/recycling of 85 % by average weight per vehicle. However, **separate reuse targets** are missing with the consequence that mainly recycling will contribute to fulfill the targets in practice. Therefore, we demand to set separate reuse targets. However, the targets should not only be obligatory for member states, but also for producers/PROs individually as well as for the recycling facilities with which the producers or their systems have concluded contracts. This would set necessary incentives to set up respective structures for reuse accordingly. As an important basis for reuse targets, a monitoring of reuse must be also established.

To enhance reuse, authorised treatment facilities and recycling facilities should be obliged to cooperate with reuse stakeholders. Concerning the requirements set out in Art.31 regarding removed parts and components, an **assessment of reusability for components, parts and materials must be mandatory** (before removal) without exceptions and effectively controlled by authorities. In addition to the listed parts that should be removable in Part C of Annex VII, also other parts with usual high reuse potential should be dismantled prior to shredding. Examples are all electronic parts without exceptions regarding their size as well as rear lights. We, therefore, propose that a separate list for components with high reuse potential is introduced. In order to allow reuse, the first removal of parts and components must be in a non-destructive way stated in Art. 27 (c).

The **requirements proposed in Article 33 (1) how Member states can enhance reuse** must become mandatory (use “must” instead of “may”). This would mean (a) that maintenance and repair operators must offer customers reused parts without any obstacles (administrative or price). Also in (b), Member states must be required to set incentives to promote reuse and repair, e.g. through taxes. Similarly, producers should always offer reused spare parts via the same marketing route and should, additionally, be incentivized to integrate used parts and components in their manufacturing processes. Practical initiatives are in progress, e.g. with some producers establishing circular economy business unit to facilitate the reuse and remanufacturing of components from end-of-life vehicles.[6,7] Since 2017, car workshops in France have been legally obliged to offer used spare parts that come from official vehicle dismantlers and must meet the quality standards of new parts.[8] Also insurances can play an important role to promote use of reused parts, as practical examples demonstrate.[9,10]

## c. Recycling and Recovery

Through recycling, valuable raw materials can be preserved in the economic cycle, thereby reducing the environmentally harmful extraction of primary resources. This requires ambitious recycling targets, measures to promote the use of recycled materials, and stringent regulations for pollutant reduction.

The list of parts and components in Annex VII Part C, which must be removed from end-of-life vehicles prior to shredding, should be more detailed and expanded to include additional parts and components (see list of parts in section 3.b.) Electronic components must be further extended e.g. to sensors and infotainment. Glass included in e.g. windscreens, side windows, backlights, panoramic sunroofs and mirrors needs to be added to the list. Components, such as crash-management-system should be removed before shredding as they contain critical raw materials defined in regulation 2024/125. Lastly, mono-material and plastic parts above 1 kg must be removed before shredding.

The targets for reuse, recovery and recycling in Article 34 are not sufficient to guarantee a high recycling rates. Currently, the draft only specifies a common target for reuse and recycling of 85 %, by average weight per vehicle. As a result, recycling processes for bulk and precious metals that are already profitable are currently mainly used. To effectively protect resources, it is essential to increase the recycling of all environmentally critical materials. This should be promoted via separate **material-specific recycling targets** for e.g. glass, plastics, technology metals or rare earths. Recycling targets should also increase on a self-learning basis so that the state of the art is always applied: If recycling targets are exceeded, a higher target should be set automatically.

Where vehicles and components are to be shredded, **mandatory requirements for post-shredding technologies (PST)** are necessary to ensure high-quality materials from shredder residues for further use, e.g. separation of at least two aluminum fractions (forged and extruded aluminum) or low copper residues (below 0,1%) in shredded steel, as high residues cause metallurgical problems. For plastics output, the draft for VDEoL misses the opportunity to require a minimum share of material entering high quality mechanical recycling processes as well as a certain separation efficiency for different polymers.

In general, **quality of recycling** should be better defined to guarantee recycling technologies with certain minimum requirements, such as e.g. on yield, content of contaminants or energy consumption.[11] Against this background, techniques for plastics recycling such as pyrolysis and gasification should not be accepted to count towards recycling targets.

## d. Collection and Exports

A proper collection system for end-of-life vehicles is important to ensure reuse or high-quality recycling. Art. 23 of the proposal already states that collection systems cover the territory and ensure adequate availability of authorized treatment facilities. However, this could be more concrete as in defining a more specific target for the coverage of collection systems.

Regarding export and deregistration, Art. 26 lists the obligations of vehicle owners to deliver their vehicles to an authorised treatment facility when it reaches the end-of-life stage. Presenting the subsequent **"certificate of destruction"** for the vehicle's deregistration must become mandatory. This would set strong incentives for vehicle owners to use official reuse or recycling pathways, because otherwise they would have to continue paying taxes. There should not be exceptions for vehicles of historical interest (old-timers) to rule out loopholes. There may be reduced taxes for such old-timers if they are not used in the roads. Also, the national practice (Germany) to temporarily decommission vehicles for 7 years and then automatically delete their registration must be stopped.

Art. 36 defines that **shipment of end-of-life vehicles** from the EU to a third country shall only count towards the fulfilment of obligations and targets if the exporter provides documentary evidence demonstrating that the treatment took place in conditions that are "broadly equivalent" to the requirements laid down in this regulation. It is not clear what equivalent conditions is referred to and which specific conditions must be met. Additionally, it seems unclear how equivalent treatment conditions should be controlled outside of Europe. From DUHs point of view, it is therefore very important to guarantee that producer responsibility is only ending if high quality and legally compliant treatment of a vehicle occurred.

In addition, to finance treatment in other non-European countries, a fund should be established through EPR-schemes. The fund should receive for each vehicle EPR fees that are equivalent to the average costs of treatment of this vehicle within Europe (see section 1.g).

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[1] Ökopol GmbH (2023). Field of action: vehicles and batteries. Input from the project "Scientific support and monitoring of the National Circular Economy Strategy (NKWS)"
[2] ECOS, DUH, ZWE (2021): Chemical recycling and recovery, https://zerowasteeurope.eu/library/chemical-recycling-and-recovery-recommendation-to-categorise-thermal-decomposition-of-plastic-waste-to-molecular-level-feedstock-as-chemical-recovery/
[3] ECOS, DUH, EEB, DUH and others (2023): Joint statement calling for a transparent and reliable policy framework defining recycled content in plastic, https://zerowasteeurope.eu/wp-content/uploads/2023/07/Joint_letter_recycled_content_methodology_SUPD-1.pdf
[4] DUH (2024). Regulierung batterieelektrischer Pkw - Positionspapier der Deutschen Umwelthilfe; Retrieved 19th August 2024, from https://www.duh.de/projekte/elektromobilitaet/
[5] Regulation on the return, take-back and disposal of electrical and electronic equipment (VREG)/ Verordnung über die Rückgabe, die Rücknahme und die Entsorgung elektrischer und elektronischer Geräte (VREG), Retrieved 2nd August 2024, from https://www.fedlex.admin.ch/eli/cc/2021/633/de
[6] Sustainera (01/08/2024). Reuse; Retrieved August 1, 2024, from https://www.sustainera.com/en/reuse.html
[7] Automotive Manufacturing Solutions. (25/07/2023). *Stellantis, Renault see profit in new business divisions for component re-use*. Retrieved August 1, 2024, from https://www.automotivemanufacturingsolutions.com/materials/stellantis-renault-see-profit-in-new-business-divisions-for-component-re-use/43554.article
[8] *Article L. 271-1 du Code de la consommation* ; Retrieved 1st August 2024, from https://www.legifrance.gouv.fr/codes/article_lc/LEGIARTI000031052562/2016-06-09
[9] Spiegel Online (10/05/2024). *Allianz lässt gebrauchte Ersatzteile bei Autoreparatur zu*; Retrieved 1st August 2024, from https://www.spiegel.de/wirtschaft/service/allianz-laesst-gebrauchte-ersatzteile-bei-autoreparatur-zu-a-8fcb7c00-5ff7-44bc-92a6-af37b812b179
[10] AutoCirc. (27/07/1023). *AutoCirc starts nationwide cooperation with IF Insurance Company in Norway*. Retrieved 1st August 2024, from https://autocirc.com/autocirc-starts-nationwide-cooperation-with-if-insurance-company-in-norway/
[11] Caro, D. et al. (2023) Towards a better definition and calculation of recycling, Publications Office of the European Union, Luxembourg, doi:10.2760/636900, JRC131531.

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