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End-of-life vehicles – revision of EU rules

FEAD, the European Federation for Waste Management and Environmental Services, representing the private waste and resource management industry across Europe **welcomes** the Revision of Directive 2000/53/EC on end-of-life vehicles as part of the new CEAP and the Green Deal.

The waste management sector is crucial towards sustainability. Among different waste flows, ELVs are one of the most interesting ones in terms of yearly generated volumes, growth rates, embedded valuable raw materials, environmental issues and illegal markets.

Historically, the vehicle composition is changed and is shifted towards light materials such aluminum and polymeric constituents to make the vehicles lighter and therefore less energy consuming and less polluting.

One of the main problems in the recycling chain of the automotive is the Automotive Shredder Residue, called ASR. Primary ELV recovery techniques recycle up to 75% of the ELV components; the remaining 25% is called ASR. In order to reach the 95% recycling target set by the ELV Directive, higher efficiency in ASR recovery is needed, in addition to material recycling of collectable components and metals.

Also, it is estimated that a significant number of ELVs from EU countries are exported as second-hand cars towards non-EU countries causing massive negative impacts on health and environment due to inappropriate disposal. In this context, it has to be ensured that exports of second-hand cars do not cause environmental damage in third countries. In the same time, it must also be ensured that production material for vehicles remains available within the EU. Accordingly, FEAD calls for appropriate market-based instruments to be taken in order to address this problem.

In order to increase the environmentally sound recycling of the ELVs, FEAD would like to stress the following needs of the waste management sector:

1) Establish harmonized rules on de-registration

Export is a significant outflow for end of life vehicles. It is also worth mentioning that automotive trade is also a quite important flow to be considered.

Significant export flows of ELVs as second-hand cars are estimated from EU countries towards non-EU countries. Higher profits to sell these used cars in comparison with their uses as spare-parts and materials in the EU can explain this phenomenon.

The collection of ELV can be improved through a harmonized European legal framework with the following measures:

- Create incentives to deliver a vehicle to authorized treatment facilities which deliver a Certificate of Destruction (avoid 'unknown whereabouts' (vehicles that are deregistered but without a Certificate of Destruction (CoD))
- implement a harmonized and easy vehicle registration and de-registration system within the EU through the constitution of a common European vehicle register,
- define the minimum requirements and elements of such common European vehicle register,
- make a clear distinction between used cars and ELVs,
- enforce legislation to avoid illegal online and retailing sales of valuable spare parts from ELVs cars such as catalytic converters, engines and electric batteries,
- define specific requirements for online and retailing sellers of the above mentioned spare parts,
- increase inspection of ATF (Authorized Testing Facilities)

2) Enhance vehicles eco-design

The ELV directive has generated numerous efforts to encourage eco-design but more efforts are still needed, for example:

- reducing the number of different polymers present in a vehicle. Despite of the fact that most polymeric materials in vehicle can be recycled with simple mechanical processes if correctly separated, **the presence of many different polymers is a serious challenge to recycling (there are currently 39 different [1]types of basic plastics and polymers used to make an automobile)**
- the presence of resins, additives and fillers such as glass fibre, carbon fibre and glass beads makes the plastics difficult, if not impossible, to recycle. These should be used only if not avoidable for the sake of safety, but otherwise substitution with recyclable materials should be explored
- Favour easy dismantling of the automotive parts to increase reuse and recycling
- favour recovery of plastics and other materials from ASR
- provide incentives, such as mandatory recycled content, to encourage an increased demand of recycled plastics in the automotive sector, with differentiated specifications according to the respective materials. The most ideal recipient for uptake of recycled plastics from cars should be new cars

3) Improve extended producer responsibility for vehicles

[1] (The Plastics Industry Trade Association, 2016)

One of the main issues in the removal of car components such as bumpers, dashboards or fluid containers is the economical sustainability of the action, as no indication is given on who is responsible of the unavoidable cost of dismantling.

Solutions for a better dismantling and an increase in recycling rates require to:

- clarify that car manufacturers bear the **responsibility and the costs for the waste stage of a car's life cycle**
- provide incentive on proper dismantling and depollution through EPR schemes
- provide a list of the available components in ELVs (engines, electric car batteries and catalysts) at the moment of their deregistration from the appropriate registers (according to local laws).
- boost the market of secondary raw materials, through mandatory recycled contents in the automotive sector.

The demand for recycled material needs to be increased in order to drive value and make the activity economically viable.

4) Invest in innovative technologies

Optimizing post-shredder technology (PST) which allows to recover plastic materials is needed in order to increase the recycling rates of ASR.

So, further development and implementation of Post-Shredding Technologies (PSTs) for material extraction and sorting should be boosted by economic incentives.

5) Improve Information flow

The vehicle produced has to assure, at least, the following goals :

a. low energy consumption
b. easy dismantling
c. suitable recycling
d. less toxic metals

To fulfil these goals, all the involved stakeholders have to cooperate and exchange relevant information.

From its side, the producer will provide the dismantling information and the content of Substances of Concern for each new type of new vehicle put on the market.

Taking into account that the average lifespan of a car in use is roughly between 12 and 15 years, legacy substances will also be a main issue. An updated is needed by the producers as a new substance becomes of concern.

As a general rule, less use of SVHC in products will cause less problems and reduce down-cycling when the product becomes waste.

Furthermore we call for a coherence between the ELV Directive and other EU legislations (Waste Framework Directive, Batteries Directive, Directive on Restrictions of certain Hazardous Substances, REACH, EU rules on type-approval and on registration of vehicles…).

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