



An EU funded project

Main content of the Waste Management Plan for end of life vehicles

3rd Workshop
Waste Management Plan on end-of-life vehicles
10th March 2017

Chapters and Issues of the Plan

- ❑ Legal framework for the management of ELV;
- ❑ Institutional set-up;
- ❑ Current status of the management of ELV;
- ❑ Collection system and treatment facilities;
- ❑ Forecast on waste quantities;
- ❑ Assessment of needs;
- ❑ Sources and levels of funding;

Current legal framework Structure of European Waste Legislation relevant for ELV

Waste Framework Directive

Regulation on Shipment of wastes

European Waste List

Landfill Directive

Industrial Emissions Directive

Directive 2000/53/EC on end-of-life vehicles

Guidance Document

Amendments of Annex II

Component and material coding standards

Minimum requirements for Certificates of Destruction

Legal framework for the management of ELV

- ❑ Law on Waste Management

Article 55: Specific regulations on end-of-life vehicles

- ❑ Rulebook on end-of-life vehicles (98/2010)

Further specific regulations on end-of-life vehicles

- ❑ Decree on products which become special waste streams upon their use (3/2014)

Environmental tax for vehicles placed on the market

Current Status of Serbian Legislation on ELV management (1)

According to the assessment made by the project STEs:

- The Directive 2000/53/EC is only partly transposed;
- The transposition is realized by the Law on Waste Management and by the Rulebook on ELV;
- The status of the legal instrument Rulebook seems to be inappropriate to meet the EU requirements;
- Measures to encourage the economic sector to adopt preventive measures are missing;
- Implementation of a collecting system is missing;
- Mechanisms to establish a functional system of authorized treatment facilities are missing.

Current Status of Serbian Legislation on ELV management (2)

- ❑ A certain number of measures were proposed for alignment of the national legislation to the EU Directive and for proper implementation.
- ❑ Those measures include the transposition of Article 8 of the Waste Framework Directive related to - Extended Producer Responsibility with regard to ELV and proposal for different violation of the ELV legislation.

Institutional set-up

Essential aspects of the organizing of ELV management in Serbia

Activity	MAEP	AP	LSG	SEPA
Territorial competence	RS except AP	Only own territory	Only own territory	RS
Issue permits for collection, transport, storage, treatment, recovery ¹ , disposal	HW IW, NHW if operation on more than one LSG IW, NHW in case of incineration All kind of waste treated in mobile facilities	All kind of waste	City of Belgrade: only IW, NHW ² ; all kind of waste, if construction permit issued by City of Belgrade ¹ Other LSG: IW, NHW	
Inspection of installations	HW IW, NHW if operation on more than one LSG	HW IW, NHW if operation on more than one LSG inside of AP	IW, NHW	
Information on issued permits	Own permits Maintain records of permits issued by other competent authorities	Only own permits	Only own permits	Register of all permits (receives information from all permitting authorities)

	MAEP	AP	LSG	SEPA
Information on waste quantities and types	-	-	-	Waste data base (receives information from all waste generators and owners)
Information on movement of hazardous waste	Yes (LWM) No (situation since 2015)	Yes	No ² City of Belgrade: Yes ¹	No (LWM) Yes (situation since 2015)
Issue notification for waste shipment	Yes	No	No	No
Information on the shipment of waste	Yes	-	-	Yes
Strategy	National Strategy, in cooperation with AP	Participate in development of National Strategy	Participate in development of National Strategy	-
Planning	National Plan ¹ (in reality: in cooperation with AP, LSG + others) Consent to regional plans, except AP	Cooperation with MAEP to prepare National Plan ² Consent to regional plans Plans for certain types of waste that are of importance for AP ²	Regional Plan, if plan comprises more than 1 LSG Local Plan	-
Prevention	Waste prevention programme	-	-	-

1. new provision in the draft for an amendment of the law on waste management (30.11.2015)

2 will be removed according to the draft for an amendment of the law on waste management (30.11.2015)

Current status of the management of ELV

- ❑ Total number of registered passenger cars:
1,797,252
- ❑ Number of first-time registered passenger cars:
105,393
- ❑ Number of imported vehicles:
 - ❑ M1: 84,300
 - ❑ N1: 7,300
- ❑ Weight of exported vehicles:
 - ❑ M1: 144,500 t
 - ❑ N1: 4,500 t

Current status of the management of ELV

Code	Waste	Quantity (t)
16 01 04*	end-of-life vehicles	1,196
16 01 06	end-of-life vehicles, containing neither liquids nor other hazardous components	1,830

- ❑ The reported ELV quantities are obviously **too low!**
- ❑ Wastes generated under the waste codes for wastes from dismantling of ELV and vehicle maintenance: 29,590 t

Current status of the management of ELV

Quantity of treated ELV:

- ❑ 16 01 04* end-of-life vehicles: 718 t
- ❑ 16 01 06 end-of-life vehicles, containing neither liquids nor other hazardous components: 1,168 t
- ❑ This means most probably:
 - part of ELV are not treated in authorized facilities
and/or
 - part of ELV are not reported officially
and/or
 - part of ELV are temporary storage

Collection system and treatment facilities

The different facilities necessary for ELV management

- Collection point:
 - Receives ELV as hazardous waste from last owner
 - Sends ELV as hazardous waste to dismantling facility
- Dismantling facility:
 - Depollution → hazardous waste
 - Dismantling → non-hazardous waste, spare parts for reuse
 - Sends depolluted and dismantled ELV as non-hazardous waste to shredder
- Shredder:
 - Shredding of ELV together with other metal waste (e.g. WEEE)
 - Metals will be recycled
 - Fluff-light fraction (or automotive shredder residue) goes to landfill (banned in some countries) or will be treated (Post Shredder Technology)

Forecast on waste quantities

Estimation method 1:

- ❑ Based on the number of newly registered passenger vehicles about 80,000 t should fall out of the car fleet.
- ❑ 50% = ELV and 50% = exported vehicles
 - Approx. 40,000 t ELV/a

Forecast on waste quantities

Estimation method 2:

Based on information for the European Member States Bulgaria, Czech Republic, Estonia, Latvia, Lithuania, Poland, Romania, Slovenia, Slovakia and Hungary

- 7.0 kg ELV/capita

= for Serbia: 50,000 t

- 19 kg ELV per registered passenger cars

= for Serbia: 34,100 t

➤ Mean value = 42,000 t

- Estimation method 1 and 2: 40,000 – 42,000 t ELV/a

Assessment of needs

- ❑ The situation of the management of ELV is analyzed In the National Waste Management Strategy from 2010. For the year 2019 a quantity of 124,000 t ELV is expected per year and for the period 2010 – 2019 an amount of 30 Mio € is estimated to be necessary for the management of ELV.
- ❑ From the estimations in the SWMP for ELV, it can be concluded that the annually generated quantity of ELV in Serbia is between 40,000 and 42,000 tons only.

Assessment of needs

- ❑ This implies investment costs of one third of the above mentioned costs which is 10 Mio €. Dismantling and shredding infrastructure for ELV should develop progressively with increasing demand.
- ❑ It is expected that systems and facilities for the management of ELV, being under the responsibility of private sector, will almost completely be funded by private sector from its own capital and/or long term commercial loans.

Sources and levels of funding

- ❑ Operation of ELV management systems are mainly self-financed because of revenues from sale of recycled material and of spare parts.
- ❑ Producers' fees (if any) are mainly used to fund data management, auditing activities, communication efforts and administrative costs.
- ❑ In the majority of EU Member States for ELV management exist EPR schemes either with individual or with collective responsibility

Sources and levels of funding

- ❑ In general a funding by Gov. of an ELV management system is not necessary
- ❑ It would be useful to establish financial incentives to direct the ELVs to the legally acting collection and dismantling facilities
- ❑ Financial instruments proposed :
 - In case the ELV is submitted to an authorized collection or dismantling facility the last owner receives a significant amount of money (e.g. 100€/ 12,000 RSD) or a discount provided for buying a new car;
 - Introducing a landfill tax for shredder residues (approx. 25% of an ELV). This EI will contribute for further investment in treatment facilities performances.

Thank you very much!



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