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**Current status** of generation and management of  
hazardous waste from end of life vehicles

Serbian Environmental Protection Agency

# COLLECTION OF DATA

- ▶ The main prerequisite for the analysis of waste management is adequate collection of data.
- ▶ Companies that produce waste during their activities i.e. that take over the waste in order to subject it to treatment, dispose or export it, have to report it to the Agency in accordance with the law and regulations.
- ▶ Data collection is based on the existing legislation of the Republic of Serbia, EU directives, as well as obligations deriving from various international treaties

# REGULATIONS:

- Rulebook on the methodology of the preparation of national and local register of pollution sources, as well as the methodology of the types, methods and deadlines of data collection ("RS Official Gazette" No. 91/2010 and 10/2013),
- Rulebook on forms of daily records and annual report on waste (Official Gazette of RS, no. 95/2010 and 88/2015)
- Rulebook on packaging and packaging waste management report forms (Official Gazette of RS, no. 21/2010 and 10/2013)
- Regulation on products which become special waste after use (Off. Gazette of RS, no. 89/2009, 54/2010, 86/2011, 41/2013 etc. Rulebook and 3/2014)



QUESTIONNAIRE:

<b>GIO 1</b>	<b>Producers of waste for generated waste / Operators of facilities for the reuse (treatment) of waste for residual waste</b>
<b>GIO2</b>	<b>Operators of waste disposal facilities for collected and disposed waste</b>
<b>GIO3</b>	<b>Operators of facilities for the reuse of waste for collected and processed waste</b>
<b>GIO4</b>	<b>Waste Exporters for exported quantities of waste</b>
<b>GIO5</b>	<b>Waste Importers for import quantities of waste</b>
<b>KOM 1</b>	<b>Public enterprises the utilities submit data on municipal waste management</b>
DEO 6	ANNUAL REPORT ON WASTE COLLECTOR AND OTHER OWNERS OF WASTE

# Amount of of end-of-life vehicles generated in 2015.

(data is only from companies)

Waste code	Sort of waste	Quantity (t)
16 01 04*	end-of-life vehicles	96.59
16 01 06	end-of-life vehicles, containing neither liquids nor other hazardous components	814.81

# The generated amount of waste in 2015

End-of-life vehicles from different means  
of transport and wastes from dismantling  
of end-of-life vehicles and vehicle

Waste code	Quantity (t)
16 01 03	7548.83
16 01 04*	96.59
16 01 06	814.81
16 01 07*	59.71
16 01 08*	0.89
16 01 09*	1.66
16 01 10*	7
16 01 12	32.21
16 01 13*	0.17
16 01 14*	12.49
16 01 17	7444.27
16 01 18	357.9
16 01 19	510.33
16 01 20	15.49
16 01 21*	0.91
16 01 22	38.1
16 01 99	1297.55
16 06 01*	830.05
$\Sigma$	19068.28



# Quantities of end-of-life vehicles treated in 2015

Waste cod	Amount (t)	Type of treatment
16 01 04*	555.12	R12/R13
16 01 06	46.46	R4

Postrojenje	Opština Postrojenja	Indeksni Broj	Naziv Otpada	Ukupno Preuzeto (t)	Ukupno Tretirano (t)	Količina za R1 Tretman (t)	Količina za R3 Tretman (t)	Drugi R Tretman	Količina za drugi R Tretman (t)
Društvo sa ograničenom odgovornošću za reciklažu metala Centar za reciklažu	Beograd-Čukarica	16 01 04*	otpadna vozila	332.12	332.12			R13	332.12
TGTD"OTPAD-PROMET"D.O.O.	Koceljeva	16 01 04*	otpadna vozila	191	223			R12	223
TRGOVINSKA RADNJA POLOVNIM VOZILIMA-AUTO OTPAD ER.M	Sombor-grad	16 01 04*	otpadna vozila	1	1	0.5	0.5	R11	0
Društvo za otkup i preradu sekundarnih sirovina i promet robe Maksi-Co doo Donji Adrovac	Aleksinac	16 01 06	otpadna vozila koja ne sadrže ni tečnosti ni druge opasne komponente	46.46	46.46			R4	46.46



# Transboundary Shipments

Quantities of end-of-life vehicles exported from  
Serbia

Waste code	Sort of waste	Quantity (t)
16 01 04*	end-of-life vehicles	0
16 01 06	end-of-life vehicles, containing neither liquids nor other hazardous components	486  (Egypt)

# Management of waste end-of-life vehicles 2015

Type of waste	Disposal waste (t)	Treatment (t)	Import (t)	Export (t)
16 01 04*	0	555.12	0	0
16 01 06	0	46.46	0	486

# Market inputs

## Quantities of vehicles put on the market in Serbia

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- In accordance with the Regulation on products which become special waste after use SEPA collecting data about product put on the market in Serbia.
- 353694,7 t vehicles put on the market in Serbia in 2015.



# Register of licenses issued

Register of licenses issued is established and managed by the competent authority for issuing the permit and **it submits the registry information to the Agency.**

**The licenses-issuing authorities**

- The Ministry of Agriculture and Environmental Protection
- The competent authority of the Autonomous Province
- Municipalities

## Register of licenses issued of end-of-life vehicles

	Waste collection	Transport of waste	Storage of waste	Waste treatment	Waste disposal
16 01 04*	61	59	17	8	0
16 01 06	263	266	189	145	9

By analyzing submission of data, several problems have been noticed:

- Companies are not sufficiently informed that there is a reporting obligation,
- Companies do not know how to fill in the required forms, Incorrectly forms (GIO1-GIO3, waste-product, tyres- vehicles)
- Companies do not want to fill in the forms submitted or they submit incomplete or incorrectly filled out data. We do not know if they sent complete information when they submit the Report.
- We have not data about private end-of-life vehicles



# Challenges

## COMMISSION DECISION

of 1 April 2005

laying down detailed rules on the monitoring of the reuse/recovery and reuse/recycling targets set out in Directive 2000/53/EC of the European Parliament and of the Council on end-of-life vehicles

*(notified under document number C(2004) 2849)*

(Text with EEA relevance)

(2005/293/EC)

# Challenges

**Table 1: Materials from de-pollution and dismantling (in tonnes per year) of end-of-life vehicles arising in the Member State and treated within the Member State**

Materials from de-pollution and dismantling (**)	Reuse (A)	Recycling (B1)	Energy recovery (C1)	Total recovery (D1 = B1 + C1)	Disposal E1
Batteries					
Liquids (excluding fuel)					
Oil filters					
Other materials arising from de-pollution (excluding fuel)					
Catalysts					
Metal components					
Tyres					
Large plastic parts					
Glass					
Other materials arising from dismantling					
Total					

**Table 2: Materials from shredding (in tonnes per year) of end-of-life vehicles arising in the Member State and treated within the Member State**

Materials from shredding (**)	Recycling (B2)	Energy recovery (C2)	Total recovery (D2 = B2 + C2)	Disposal E2
Ferrous scrap (steel)				
Non-ferrous materials (aluminium, copper, zinc, lead, etc.)				
Shredder Light Fraction (SLF)				
Other				
Total				

**Table 3: Monitoring of (parts of) end-of-life vehicles arising in the Member State and exported for further treatment (in tonnes per year)**

Total weight of end-of-life vehicles which are exported per country (**)	Total recycling of (part of) end-of-life vehicles exported (F1)	Total recovery of (part of) end-of-life vehicles exported (F2)	Total disposal of (part of) end-of-life vehicles exported (F3)



# Challenges

**Table 4: Total reuse, recovery and recycling (in tonnes per year) of end-of-life vehicles arising in the Member State and treated within or outside the Member State**

Reuse (A)	Total recycling (B1 + B2 + F1)	Total recovery (D1 + D2 + F2)	Total reuse and recycling (X1 = A + B1 + B2 + F1)	Total reuse and recovery (X2 = A + D1 + D2 + F2)
W (total number of end-of-life vehicles) = ...			%	%
W1 (total vehicle weight) = ...			X1/W1	X2/W1

*Thank you for your attention*

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