End-of-life vehicle reuse/recycling/recovery rates in Germany for 2010 pursuant to Art. 7 (2) of the End-of-life vehicles Directive 2000/53/EC

Quality Report: Description of the data used
in accordance with Article 1 of COM Decision 2005/293/EC on end-of-life vehicles

0 General

GENERAL INFORMATION

- ***Country: Germany***
- *Issue: "Description of the data submitted according to Commission Decision 2005/293/EC on the monitoring of the reuse/recovery and reuse/recycling targets on ELVs "*
- *Organisation submitting the data and the description:*

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- ***Reference period: Data for the year 2010***
- *Delivery date / version: 28 June 2012, version 1*
- *We agree to make our Quality Report available to the national experts via circa (Y/N): Y*

Contents

1 Tables pursuant to COM Decision 2005/293/EC for Germany 2010

Note: According to the guide "How to report on ELVs according to Commission Decision 2005/293/EC", pages 9-10 and 22-23, **all** metals are to be entered in Table 2 if the "metal content assumption" is applied. To avoid double counting, Table 1 and Table 3 must therefore contain non-metals only.

Note: The COM tables are repeated in the **Appendix** to this Report, in this instance with allocation of the respective metals to Tables 1, 2 and 3.

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

COM Table 1 (dismantling) for Germany, 2010 Non-metals only!! (see above)					
Materials from de-pollution and dismantling	**Reuse**	**Re-cycling**	**Energy recovery**	**Total recovery**	**Disposal**
	(A)	**(B1)**	**(C1)**	**(D1=B1+C1)**	**E1**
	[t]	[t]	[t]	[t]	[t]
Batteries [a)]	113	5,767	0	5,767	1
Liquids (excluding fuel)	90	3,506	1,123	4,629	1,100
Oil filters [a)]	0	0	64	64	6
Other materials arising from de-pollution (excluding fuel) [a)]	2	0	236	236	8
Catalysts [a)]	17	409	0	409	6
Metal components [a)]	0	0	0	0	0
Tyres	1,675	14,569	0	14,569	203
Large plastic parts	196	1,189	0	1,189	5
Glass	152	1,575	0	1,575	12
Other materials arising from dismantling [a)]	6,843	0	964	964	3
Total	**9,089**	**27,015**	**2,386**	**29,401**	**1,345**

Source: From Federal Statistical Office data, Tables 1 and 15 of the Waste Management Survey 2010.

a) Non-metal portion only. For metals see COM 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

COM Table 2 (shredders) for Germany, 2010 Including all metals (see above)				
Materials from shredding	**Recycling**	**Energy recovery**	**Total recovery**	**Disposal**
	(B2)	**(C2)**	**(D2 =B2+C2)**	**(E2)**
	[t]	[t]	[t]	[t]
Ferrous scrap (steel)	342,312	0	342,312	133
Non-ferrous materials (e.g. Al, Cu, Zn, Pb)	37,677	0	37,677	15
Shredder light fraction (SLF)	73,280	50,613	123,893	12,456
Other	0	0	0	0
Total	**453,269**	**50,613**	**503,882**	**12,603**

Source: From Federal Statistical Office data, Table 15 of the Waste Management Survey 2010.

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

COM Table 3 (export) for Germany, 2010 Non-metals only!! (see above)					
Components / materials exported for further treatment Total weight, broken down by countries	**Total weight of end-of-life vehicles exported, by country**	**Total recycling of (parts of) end-of-life vehicles exported**	**Total recovery of (parts of) end-of-life vehicles exported**	**Total disposal of (parts of) end-of-life vehicles exported**	**Remarks**
		(F1)	**(F2)**	**(F3)**	
	[t]	[t]	[t]	[t]	
1) End-of-life vehicles (Waste code 160104*)	0	0	0	0	No exports in 2010 according to the statistics on "Transboundary shipment of waste requiring notification" [a)]
Breakdown by countries: -- not applicable --					
2) Body shells from dismantling plants (Waste code 160106)	7,224	1,746	3,115	4,109	Basic figures: 27,381 t vehicles exported for recovery (assumption: 80%/85% thereof recovered), 8 t vehicles exported directly for disposal. 26.4 % non-metals (= 100%-73.6% metal portion)
Breakdown by countries: -- unknown --					
3) Components from dismantling plants	738	609	730	8	Batteries[c)], tyres, large plastic parts, glass etc.
Breakdown by countries, where known [b)]					
Waste		**Destination countries** for waste exports (total, not just from dismantling plants) included in the waste export statistics:			
- 130205* Engine etc. Oils		to the Netherlands			
- 160103 Waste tyres		to Poland			
- 160113* Brake fluids		to Belgium			
- 160601 Lead batteries		to Belgium, Slovenia, Spain, Czech Republic			
- 160807* Catalysts		to Belgium, UK, USA			
- 170402 Aluminium		to Poland			
- 170405 Iron and steel		to Poland			
4) SLF from shredders	2,144	1,180	1,764	381	Total SLF exported: 191003*: 4,684 t, 191004 : 2,066 t of which 32 % from ELVs.
Breakdown by countries, where known [b)]					
Waste		**Destination countries** for waste exports (total, not just from ELVs) according to waste export statistics			
- 191003* Shredder light fraction		to Belgium, Canada			
- 191004 Shredder light fraction		to Belgium			
Total	**10,107**	**3,535**	**5,609**	**4,498**	

Source: Federal Statistical Office Waste Management Survey 2010 and waste exports data

Explanatory comments:

a) http://www.umweltbundesamt.de/abfallwirtschaft/abfallstatistik/dokumente/ZeitreiheExportAbfallarten.pdf (no. 8.11) and http://www.umweltbundesamt.de/abfallwirtschaft/abfallstatistik/dokumente/UStatGExport2010.pdf (waste code 16 0104*). The 1,271 t "end-of-life vehicles" exported to the Netherlands shown under 16 01 04* do not refer to road vehicles. As such, these vehicles do not fall within the scope of the End-of-life vehicles Directive. They may be allocated to No. 8.12 "Other scrapped motor vehicles", but not to No. 8.11 "Scrapped passenger cars".

b) Sources:
b1) Waste exports from end-of-life vehicle dismantling plants: "Erhebung über die Abfallentsorgung im Jahr 2010" (Waste Management Survey, 2010), Table 15, Federal Statistical Office.
b2) Total waste exports for Germany: "Abfallstatistik: Grenzüberschreitende Verbringung von zustimmungspflichtigen Abfällen" (Waste statistics: Transboundary shipment of waste requiring notification), Federal Environment Agency, June 2011: http://www.umweltbundesamt.de/abfallwirtschaft/abfallstatistik/dokumente/UStatGExport2010.pdf

c) Non-metal portion only. For metals see COM Table 2

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

COM Table 4 (rates) for Germany 2010					
From ...	**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)**
	[t]	[t]	[t]	[t]	[t]
Tab1: Dismantling (A,B1,D1) (non-metals)	9,089	27,015	29,401	36,103	38,490
Tab 2: Shredders (B2, D2) (incl. all metals)		453,269	503,882	453,269	503,882
Tab 3: Exports (F1, F2) (non-metals)		3,535	5,609	3,535	5,609
Total	**9,089**	**483,818**	**538,892**	**492,907**	**547,981**

			Recycling and recovery rates 2010	
W	**(total number of end-of-life vehicles)**	**500,193 vehicles**	**95.5 %**	**106.2 %**
W1	**(total vehicle weight)**	**516,128 tonnes**	**X1/W1**	**X2/W1**

2 Quality Report: Description of the data submitted according to Commission Decision 2005/293/EC on the monitoring of the reuse/recovery and reuse/recycling targets for ELVs

2.1 Chapter A) Information according to Article 1(1) – Description of data used to determine ELV recycling/recovery rates for Germany 2010

2.1.1 Section 1: Sources of information

The data used as a basis for determining end-of-life vehicle recycling and recovery rates in accordance with the End-of-life Vehicles Directive 2000/53/EC consists of the waste statistics collected for the whole of Germany from ELV treatment facilities (dismantling facilities and shredder facilities) by the Statistical Offices of the Länder and the Federal Statistical Office under the Environmental Statistics Act (*Umweltstatistikgesetz*) [1] (Section 3 (1) No. 1). Tables 1.1, 14 and 15 of the "Waste Management Survey 2010" were used.

At the end of each reporting year, the ELV treatment facilities (more than 1,200 dismantling facilities and several dozen shredding facilities) enter their operational input and output quantities for the waste management survey in the statistical survey sheets DBA (dismantling facilities)[2] and SHR (shredder facilities)[3]. These are then analysed, anonymised and summarised by the Statistical Offices of the Länder and subsequently by the Federal Statistical Office (see Figure 1). From the aggregated data, the Federal Environment Agency (*Umweltbundesamt*) determines the national recycling and recovery rates for end-of-life vehicles.

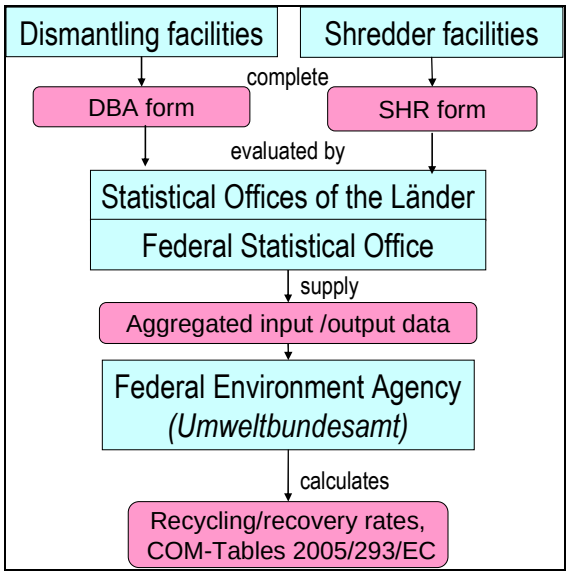


Figure 1 Data streams for determining recycling/recovery rates under the ELV Directive

[1] http://www.gesetze-im-internet.de/bundesrecht/ustatg_2005/gesamt.pdf

[2] Example: Form AE/DBA for Bavaria for 2011: https://www.statistik.bayern.de/medien/statistik/erhebungen/abfallwirtschaft/dba-s1-8.pdf

[3] Example: Form AE/SHR for Bavaria for 2011: https://www.statistik.bayern.de/medien/statistik/erhebungen/abfallwirtschaft/shr-s1-8.pdf

The statistical questionnaires differentiate the output of the facilities on the following basis:
- For recycling/recovery in Germany,
- For recycling/recovery abroad,
- For disposal in Germany,
- For disposal abroad,
- For transfer to treatment facilities, secondary materials recovered and products.

In the case of dismantling facilities, only waste types originating from the end-of-life vehicles (excluding fuel) are included in the rate calculation.

In the case of shredder facilities, the
- recovery of metals included in the "metal content assumption" and
- the recovery of the shredder light fraction (waste code numbers 191003* and 191004)
were incorporated into the rate calculation. Since shredder facilities also treat items other than end-of-life vehicles, the shredder light fraction was split: 25 % of the weight of the body shells (from within Germany) that are treated in the shredder was allocated to ELV treatment and therefore entered in COM Table 2. Statistical information is recorded as to whether the shredder light fraction sent for recovery is ultimately recovered as material, recovered as energy, or disposed of.

After-effects of the Environmental Premium

The year 2009 in Germany was heavily influenced by the effects of the Environmental Premium (see previous year's Report). This led to a quadrupling in the incidence of end-of-life vehicles as a one-off effect. Some of the ELVs were initially placed in storage by the dismantling plants and their treatment postponed until subsequent years. Over 200,000 ELVs from 2009 were recovered and recycled in 2010. According to information supplied by the Federal Statistical Office, additional ELVs from 2009 were recovered or recycled in 2011.

2.1.2 Section 2: Quality of information sources

Coverage: The data was collected from the whole of Germany from all 1,263 dismantling facilities for end-of-life vehicles and 58 shredder facilities with body shell treatment. The level of completeness is correspondingly high.

Data quality

Since 2010 is the seventh reporting year based on the same methodology, it may be assumed that the data collection process is now working well. The quality of the data is considered to be good.

The survey yields plausible figures for average vehicle weight if the years 2009 and 2010, which were directly and indirectly influenced by the Environmental Premium, are considered jointly (927 kg), see Table 1. The average weight of ELVs was 1,032 kg in 2010, exceeding the one tonne level for the first time, compared with a range of between 920 and 930 kg in 2007 and 2008 and just 898 kg in 2009. However, according to the Federal Statistical Office, there was partly the number of ELVs recorded at the time of acceptance in 2009, yet their

weight was not entered until 2010 when they underwent treatment. This led to a below-average weight in 2009, and a correspondingly higher figure for 2010. The average weight of ELVs over both years corresponds almost precisely to the 2008 figure (929 kg), with 927 kg.

Table 1 Average weight of ELVs, 2009 and 2010

	ELVs from Germany		Average weight
	Number (W)	Tonnes (W1)	kg/ELV
2009	1,778,593	1,596,831	**898**
2010	500,193	516,128	**1,032**
Total 2009+2010	2,278,786	2,112,959	**927**

Source: Federal Statistical Office, Table 14 of the Waste management Survey, 2009 and 2010

In relation to empty vehicle weight, a higher percentage of materials arose in the dismantling facilities in 2010 than in the previous year 2009 (although the latter was particularly low due to the Environmental Premium), and also compared with 2008. This is due to the fact that a relevant number of the ELVs treated in 2010 (approx. 40 %) originated from 2009, and therefore, a significant portion of the dismantled materials originates from ELVs from 2009 whose treatment was postponed.

There are no new findings regarding the quality of on-site data collection by the facilities. We would therefore refer you to the statements in the previous year's Report [4].

The breakdown of the dismantled components and materials into recycling and energy recovery is based on material types and a knowledge of the recovery paths that are usual in Germany. Various waste types consist of both metals and non-metals. The metal components had to be deducted because of applying the "metal content assumption". Average figures were therefore calculated or estimated for the metal content of the relevant waste types.

Imports: In the statistical questionnaires, the end-of-life vehicle treatment facilities state whether the vehicles accepted come from outside of Germany or within Germany. Of the 519,239 t end-of-life vehicles accepted, 3,111 t (0.6 %) came from outside Germany. The 516,128 t end-of-life vehicles accepted for treatment from within Germany were entered as W1 (total vehicle weight). In view of the extremely low import share of less than one percent, it was decided to dispense with a "correction factor" for the output, since this would make a difference of only 0.05 % to the rate calculated.

Metal content assumption: The determination of the metal content of the vehicles and the breakdown into ferrous and non-ferrous metals are based on extensive data from German and foreign vehicle manufacturers; see Section 2.2. The quality of this estimate can therefore

[4] See Quality Report on end-of-life vehicle reuse/recycling/recovery rates in Germany, 2009
German: http://www.bmu.de/abfallwirtschaft/abfallarten_abfallstroeme/altfahrzeuge/doc/47598.php ,
English: http://www.bmu.de/english/waste_management/downloads/doc/47844.php

be rated very good. In an ELV recovery test in Germany in 2006, 98.3 % of the metal content was recovered. Thus the assumed figure of 97 % is on the safe side.

Shredder light fraction: While in recent years, end-of-life vehicles had only accounted for about 10 % of the input of ELV shredder facilities, in 2009 this figure rose to 20 % due to the Environmental Premium, and was still 13.9 % in 2010, attributable to the after-effects of the Environmental Premium. The most important additional input materials of the 58 ELV shredders in 2010 were iron and steel (59 %), ferrous metals (11 %) and others (16 %). The fact that the shredder facilities handled other input materials in addition to the body shells was taken into account when allocating the shredder light fraction, in that only part of the shredder light fraction amounting to 25 % of the weight of the treated body shells was allocated to ELV recovery/recycling. Of the 554,000 t of body shells shredded in 2010, therefore, some 138,500 t of shredder light fraction was produced. This equates to 32 % of the 436,000 t of shredder light fraction incurred in total, see also pages 26/27.

2.1.3 Section 3: Determination of the weight

In the statistical survey, the dismantling facilities state the total of the vehicle empty weights in accordance with Section 2 (1), no. 23 of the German ELV Ordinance (*Altfahrzeug*V). In practice, correct determination of the empty weight can sometimes cause problems.

For a definition of the vehicle empty weight in accordance with Section 2 (1), No. 23 of the AltfahrzeugV, refer to the previous year's report.

2.1.4 Section 4: Recycling or recovery of exported ELVs or parts of ELVs

Recycling or recovery of exported end-of-life vehicles: No end-of-life vehicles were exported in 2010, refer to comments on COM Table 3 in section 1.

In terms of quantity, exports of body shells and ELV parts from Germany play only a minor role: Exports of non-metals account for only 1.1 % of the recovery rate.

Recycling or recovery of exported body shells: The quantities of body shells recycled abroad and of body shells disposed of abroad can be taken from the statistics. No information is available about body shell components ultimately recycled abroad. As in Germany, a metal content assumption of 73.6 % is used to calculate metal recovery, together with an overall recovery rate of 80 % / 85 %, in accordance with the targets of the ELV Directive.

Recycling or recovery of exported components/materials from dismantling facilities: For each type of dismantling facility output, the statistics show whether recovery/recycling or disposal took place in Germany or abroad. The breakdown into recycling and energy recovery is made in the same way as for recovery within Germany (see section 2.1.5 c)).

Recycling or recovery of exported shredder light fraction: The statistics show the quantity of shredder light fraction recycled/recovered outside Germany. They also differentiate the "recovered" shredder light fraction on the basis of "ultimate fate" into recycled, recovered as

energy, and disposed of. In calculating rates, this breakdown is applied to disposal both within Germany and abroad.

2.1.5 Section 5: Other comments

a) Explanations on export of shredder output in COM Table 2

As a result of the metal content assumption, COM Table 2 – in line with the notes in the guidelines – contains all metals recovered, i.e. including those recovered abroad. In the case of the shredder light fraction, Table 2 contains only the shredder light fraction disposed of within Germany. The shredder light fraction disposed of abroad is included in COM Table 3.

b) Description of actions undertaken by the country to avoid double counting of ELVs and components.

In accordance with Section 4 of the German ELV Ordinance (*AltfahrzeugV*), end-of-life vehicles pass through a two to three-stage disposal process in the following order:
(→ optional: acceptance or collection facility,)
→ dismantling facility for pre-treatment,
→ shredder facility.

As a result of this predetermined treatment sequence, it may be assumed that the nationwide statistical surveys do not include any double counting of the end-of-life vehicles and components reported.

For the entries in COM Tables 1 to 4, care has been taken to ensure that no double counting takes place: All metals (in line with the metal content assumption) are entered in lines 1 and 2 of COM Table 2, and COM Tables 1 and 3 contain only non-metals, including in the reuse column (A). As far as non-metals are concerned, COM Tables 1 and 2 contain only output for Germany. All outputs of non-metals destined for other countries are covered by COM Table 3.

As an alternative, the data from COM Tables 1 and 3 has also been presented in such a way that it includes the metal components. The resultant representation of COM Tables 1 to 4 is contained in the Appendix to this Report. This alternative grouping leads to the same final outcome.

c) Description of estimations / calculations conducted (e.g. factors based on ELV treatment and recovery trial, data provided by manufacturers),

There are various points at which calculations were performed or assumptions made.

As mentioned above, the statistics do not provide any breakdown of the metallic fraction of the dismantled components and materials or the recovery path (recycling or energy recovery). It was therefore necessary to make certain assumptions. For many materials, the breakdown follows from the type of material (e.g. glass and metal not recoverable as

energy). For the remaining waste types, the breakdown is made on the basis of the recovery paths which are usual in Germany - see examples in previous year's report.

Regarding the realistic assumption that the shredder light fraction originating from end-of-life vehicles amounts to 25 % of the body shell input, see the remarks in section 2.1.2.

For the "metal content assumption", see Section 2.2. In line with the guidelines, only non-metals are entered in COM Table 1 and COM Table 3. Accordingly, all metals are shown in COM Table 2 in accordance with the "metal content assumption".

d) Description of missing mandatory information; what measures are taken to provide all mandatory information in future?

One item is missing from the mandatory information in COM Tables 1 to 4: Information is incomplete regarding the destination countries in COM Table 3 (Exports).

Since no end-of-life vehicles (waste code number 16 01 04*) have been exported since these records began, the question of the destination countries is not relevant here. In the body shells category the percentage of body shells exported is low, at 5.3 % of the total vehicle weight W1. The same is true of exported components and materials from dismantling (0.5 % in relation to W1) and the shredder light fraction (0.4 %).

For some of the exported dismantled fractions and for the shredder light fraction, we were able to specify destination countries; see COM Table 3. Although the statistics used[5] do not provide any ELV-specific export data, they do indicate the total quantities exported from Germany for selected waste fractions (generally considerably more than the quantities exported by the ELV treatment facilities) and the destination countries.

e) Description of validation process (How do you establish the validity of the data?)

The statistical questionnaires are checked for plausibility by the Statistical Offices of the Länder and the Federal Statistical Office. The statistical offices use their established statistical test routines for this purpose (e.g. input/output check, expected waste types, comparison with previous year). The Federal Environment Agency checks the information from a technical point of view, e.g. on the basis of the quantities to be expected as a result of vehicle composition. For examples, see section 2.1.2 above, remarks on plausibility.

f) Description of changes in methodology relative to the previous data delivered.

There are no changes in methodology compared with the previous year.

g) Description of the discrepancy between the number of ELVs with and without CoD and measures to be taken in order to improve the situation.

Under Section 4 of the German ELV Ordinance (*AltfahrzeugV*), end-of-life vehicles must be transferred to a dismantling facility (or alternatively an acceptance or collection facility, which

[5] See COM Table 3 in Chapter 1 or directly at: :
http://www.umweltbundesamt.de/abfallwirtschaft/abfallstatistik/dokumente/UStatGExport2010.pdf

passes the ELV on to the dismantling facility). Dismantling facilities issue certificates of destruction for the end-of-life vehicles accepted and are required to treat the end-of-life vehicles in accordance with the provisions of the Ordinance. Thus legally speaking, certificates of destruction must be issued for all end-of-life vehicles.

There are no indications that end-of-life vehicles are being disposed of in dismantling facilities without a certificate of destruction being issued.

2.1.6 Input-output balance

The recommended mass balance X2+E1+E2+F3 = W1 revealed the following for 2010:

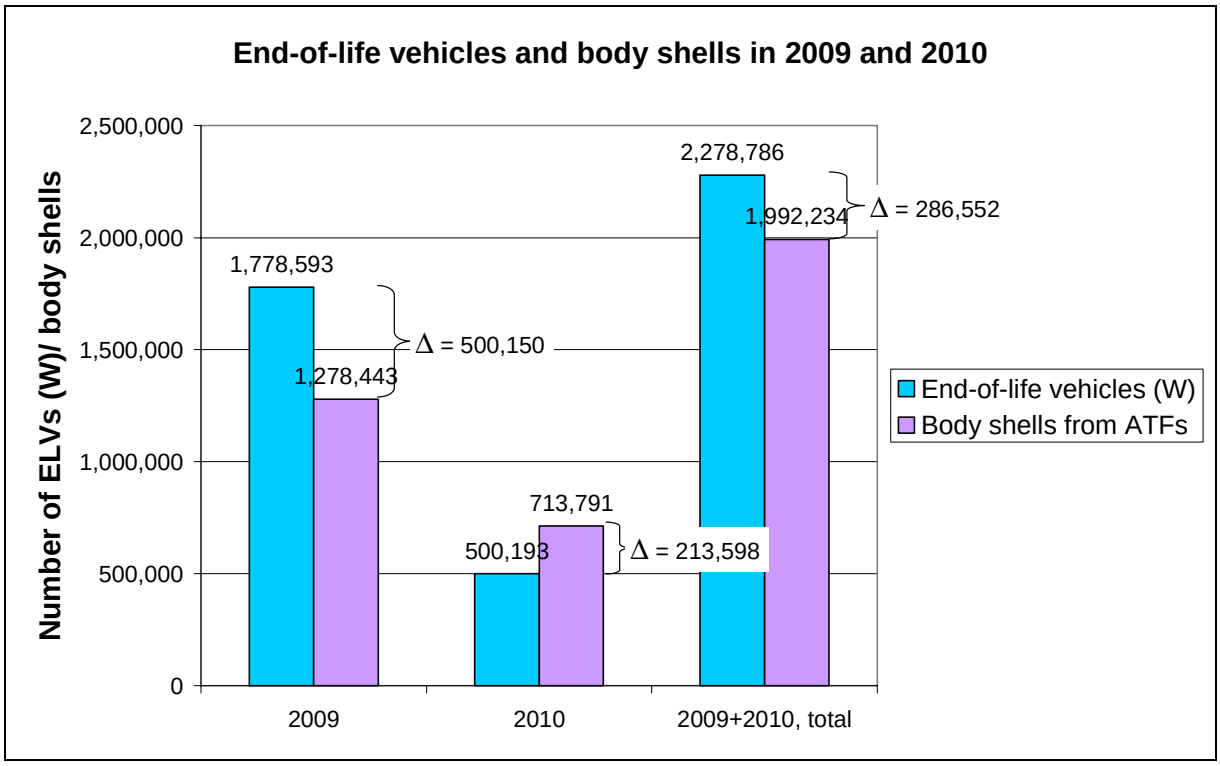
X2 =	547,981 t	(Total reuse and recovery)
E1 =	1,345 t	(Disposal from dismantling, excluding metals)
E2 =	12,603 t	(Disposal of shredder light fraction and disposal of metals)
F3 =	4,498 t	(Disposal by export, excluding metals)
Total	566,426 t	(Total output)

Comparison with number of end-of-life vehicles W1 = 516,128 t: Difference = 50,298 t = 9.7 %.

In other words, the sum total of output flows is around 10 % greater than the ELV input W1. This is plausible as an after-effect of the Environmental Premium in 2009.

Because the volume of ELVs quadrupled in 2009, some of them were placed in interim storage at the dismantling facilities. For this reason, the output side of the balance sheet for 2009 was 9 % lower than the ELV input W1. In 2010, part of this backlog was cleared. In addition to the 500,000 or so ELVs incurred in 2010, more than 200,000 ELVs from 2009 were also treated and recovered, see Figure 2. The quantity treated was therefore around 40 % higher than the ELV input in 2010. This explains why the output side of the balance sheet is higher than the input side in 2010.

In mathematical terms, the postponed treatment and recovery of stockpiled ELVs as an after-effect of the Environmental Premium leads to a recovery rate of more than 100 % for 2010 (see COM Table 4), because the ELVs arising in the year of reporting are used as the reference value.



Source: Federal Statistical Office, Table 1 of the Waste management Survey, 2009 and 2010
ATF = Authorised treatment facility for ELVs

Figure 2 Balance sheet of ELVs (accepted from within Germany, W) and body shells from dismantling facilities, 2009 and 2010

Figure 2 tracks the levels of ELVs in interim storage in the form of a balance sheet comparing the ELV input and body shell output of the dismantling facilities in 2009 and 2010.

2.2 Chapter B) Information according to Article 1 (2) – Metal Content Assumption

As in previous years, Germany uses the method of "metal content assumption" pursuant to Article 1 (2) of COM Decision 2005/293/EC.

According to COM Decision 2005/293/EC, the "metal content assumption" is based on data on
a) the percentage of metal content of the vehicles and
b) the percentage of reuse, recovery and recycling of this metal content.

a) What investigations / data have been used (sources / quality / coverage) to derive the metal content?

We would refer you to the remarks made in the previous year's report, since the same data basis was used.

The **average metal content is 75.9 %**. The metal content of the ELVs is broken into **68.3 % ferrous metals and 7.6 % non-ferrous metals (average figures).**

b) What investigations / data / calculations have been used to derive the assumed percentage of reused, recycled and recovered metals?

Reuse/recycling/recovery of the metal content was put at 97 %, as was also the case in the explanatory memorandum to the German ELV Ordinance (*AltfahrzeugV*) of 2002.

b1) "Metal content assumption"

Using the formula

"metal content assumption" = metal content of ELVs * recycling/recovery of metal content

the figure for metal content recycled/recovered in Germany comes to:

"Metal content assumption" in Germany = 75.9 % * 97 % = 73.6 %

Taking into account the recycling/recovery of the metal content of 97 %, the breakdown yields 66.3 % ferrous metals and 7.3 % non-ferrous metals recycled/recovered, in relation to the vehicle empty weight, see Table 2.

Table 2 "Metal content assumption", broken down into ferrous and non-ferrous metals

Metal content	Total metals	Ferrous metals	Non-ferrous metals	Remarks
Average metal content of vehicles	75.9 %	68.3 %	7.6 %	Figures for metal content valid for 88.9 % of German market 1995, figures for ferrous and non-ferrous metal content valid for 83.5 % of German market 1995
	Allowing for a yield of 97 %			
"Metal content assumption"	**73.6 %**	**66.3 %**	**7.3 %**	Metal content recycled/recovered

c) How does the Member State ensure that they meet the required coverage of 95%?

As in the previous year, the figures for the metal content assumption cover 89 % of vehicles first registered in 1995, while the figures for the breakdown into ferrous and non-ferrous metals cover 84 %.

d) How have these data been broken down for COM-Tables 1 to 3?

In line with the guide to the Quality Report (page 10 and pages 20-21), all recycled/recovered metals resulting from the calculation for the "metal content assumption" are entered in COM Table 2. COM Tables 1 and 3 contain information about non-metals only.

Notes on the Appendix to this Quality Report: As an alternative, the data from COM Tables 1 and 3 has also been presented in such a way that it includes the metal portions. The resultant representation of COM Tables 1 to 4 may be found in the Appendix to this Report. In this instance, COM Table 2 only contains metals from the shredder output, calculated as the difference between the "metal content assumption", less the metal contents in COM Tables 1 (dismantling, reuse and recycling/recovery) and 3 (metal exports).

2.3 Chapter C) Information according to Article 1(3) – Vehicle market, exports

2.3.1 Section 1: Information on the national vehicle market

After the year 2009 had been characterized by the Environmental Premium granted by the German Government (see section 2.3.1 of the previous year's report), new vehicle registrations decreased by 20 % the following year (2010). The number of ELVs returned to pre-Environmental Premium levels, at around 500,000 units. However, the statistics indicate that the number of used cars exported continued to fall.

Table 3 Information on the national vehicle market

National vehicle market Germany	Unit	Reference year 2010
Motor vehicles newly registered in 2010, total [6] of which passenger cars	Number	3,374,227 2,916,260
Vehicles registered in Germany[7, 8], total of which passenger cars	Number	50,184,419 41,737,627
Average age of fleet (motor vehicles[9,8], total) of which passenger cars	Years	9.3 8.1
Passenger cars, taken out of service[10] 2010 (deregistrations and temporary layups) Final de-registrations in 2010, passenger cars	Number	7,185,123 approx. 2,900,000 [11]
CoDs issued in Germany	Number	500,193
ELVs arising in the Member State	Number	500,193
Average age of ELVs	Years	approx. 14 to 15

[6] Federal Motor Transport Authority: Neuzulassungen von Kraftfahrzeugen und Kraftfahrzeuganhängern in den Jahren 1950 bis 2011 nach Fahrzeugklassen.
http://www.kba.de/cln_016/nn_277816/DE/Statistik/Fahrzeuge/Neuzulassungen/FahrzeugklassenAufbauarten/n__fzkl__zeitreihe.html

[7] Federal Motor Transport Authority: Bestand an Kraftfahrzeugen und Kraftfahrzeuganhängern in den Jahren 1955 bis 2012 nach Fahrzeugklassen.
http://www.kba.de/cln_016/nn_191172/DE/Statistik/Fahrzeuge/Bestand/FahrzeugklassenAufbauarten/b__fzkl__zeitreihe.html

[8] Reference date 1.1.2010, only registered vehicles excluding temporary layups/off-road notifications.

[9] Federal Motor Transport Authority: Bestand an Kraftfahrzeugen und Kraftfahrzeuganhängern in den Jahren 2003 bis 2012 nach Fahrzeugklassen mit dem Durchschnittsalter der Fahrzeuge in Jahren.
http://www.kba.de/cln_016/nn_191188/DE/Statistik/Fahrzeuge/Bestand/Fahrzeugalter/b__alter__kfz__z.html

[10] Federal Motor Transport Authority: Außerbetriebsetzungen von Kraftfahrzeugen und Kraftfahrzeuganhängern in den Jahren 2007 bis 2011 nach Fahrzeugklassen.
http://www.kba.de/cln_016/nn_191240/DE/Statistik/Fahrzeuge/Ausserbetriebsetzungen/FahrzeugklassenAufbauarten/a__fzkl__zeitreihe.html

[11] Final deregistrations have not been recorded in the statistics since 2007, as there are now only "off-road notifications". Final dergistrations account for about 40 % of off-road notifications. Source: Federal Motor Transport Authority, see previous year's report, footnote 13.

The waste statistics do not provide any information about the average age of end-of-life vehicles. According to two ELV treatment and shredder trials performed in Germany in 2006, the average age of the scrapped vehicles was around or over 15 years. In 2009, the average age of ELVs for which an Environmental Premium was granted was 14.1 years; see previous year's report.

As described in Section 2.1.5 g), the dismantling facilities have to issue a certificate of destruction for every end-of-life vehicle in accordance with the German ELV Ordinance (*AltfahrzeugV*).

2.3.2 Section 2: National market information on export of used vehicles, ELVs and de-polluted body shells

Exports to EU states: The number of used cars exported from Germany to other EU Member States is determined from the number of vehicles formerly registered in Germany that have been re-registered in other Member States. These re-registrations are recorded by the Federal Motor Transport Authority (KBA). The data originates from an information exchange between Member States regarding the re-registration of motor vehicles previously registered in another EU Member State, on the basis of EU Directive 1999/37/EC on the registration documents for vehicles. On this basis, some 761,000 used cars were exported to other EU Member States, see Table 4. This figure should be seen as a minimum number, since in 2010 data was available from 20 of the 26 other EU Member States. After 1.5 million used car exports in 2008 and 0.9 million in 2009 due to the Environmental Premium, exports of used cars to EU Member States decreased again in 2010, to 0.8 million.

Table 4 Notifications to the Federal Motor Transport Authority (KBA) about vehicles formerly registered in Germany [12]

New EU Member States (accession from May 2004)	Number 2010		Old EU Member States	Number 2010
Poland	**397,072**		Finland	21,211
Czech Republic	**35,885**		Denmark	10,782
Slovakia	11,284		Sweden	8,669
Hungary	12,242		United Kingdom	1,862
Lithuania	**34,429**		France	18,191
Latvia	10,571		Netherlands	**59,077**
Estonia	5,720		Belgium	23,583
Romania	**46,303**		Luxembourg	7,198
Bulgaria	26,969		Austria	2,773
			Spain	10,055
			Italy	17,555
Total EU			**approx. 761,000**	

Exports to non-EU states: Exports to non-EU states were small compared with exports to EU countries. The foreign trade statistics showed a total of around 278,000 used cars exported (passenger cars and motor homes). Comparison with the figures for 2008 (around 243,000 exports) and 2009 (around 224,000 exports) indicates a slight increase. The major destinations for used cars outside of Europe are West Africa (37 %) and the states of the former Soviet Union (28 %), see Table 5. In view of the fairly low notification thresholds, it can be assumed that the statistics cover a relatively large proportion of actual exports.

Table 5 Exports of used cars to non-EU states according to the foreign trade statistics, cars and motorhomes with petrol or diesel engine [13]

Year / Country	2010
Non-EU total	**278,222**
Of which CIS[14]	**77,391**
Of which Belarus	26,268
Of which Russia	18,716
Of which West Africa[15]	**101,691**
Of which Norway, Switzerland	**34,622**

[12] Personal communication from the Federal Motor Transport Authority dated 4 March 2011

[13] Federal Statistical Office: Warenverzeichnis Außenhandelsstatistik 8-Steller, Länderverzeichnis, Daten für 2010. Wiesbaden 2011

[14] Commonwealth of Independent States, i.e. states of the former Soviet Union excluding Baltic States

[15] Collective term for 18 West African states: Angola, Benin, Burkina Faso, Cameroon, Cote d'Ivoire, Equatorial Guinea, Gabon, Gambia, Ghana, Guinea, Liberia, Morocco, Mauritania, Niger, Nigeria, Senegal, Sierra Leone, Togo

Overall, the various statistical sources produce the following picture regarding the fate of cars deregistered in Germany - see Figure 3, with comparative figures for the previous years 2008 and 2009.

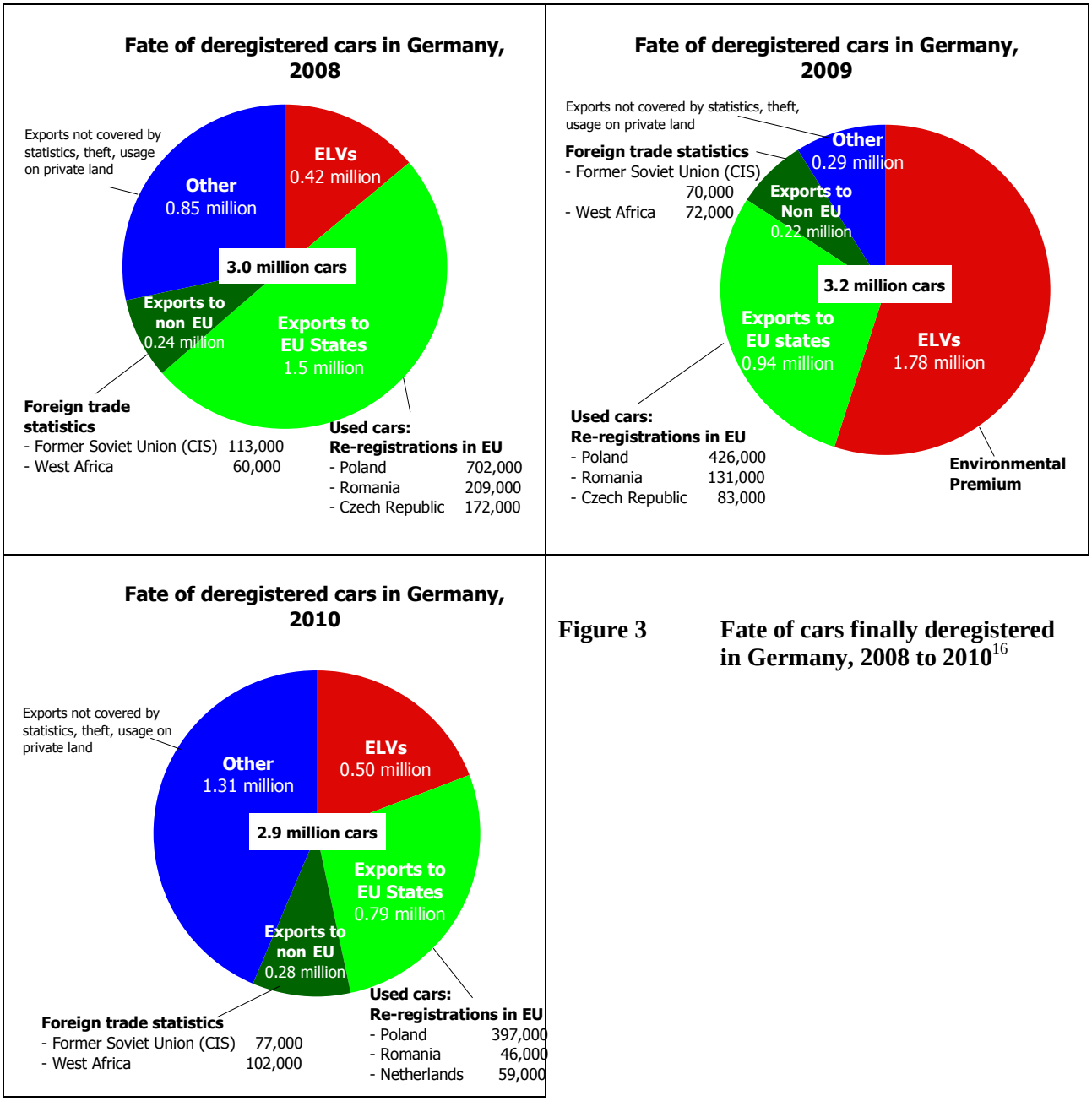


Figure 3 **Fate of cars finally deregistered in Germany, 2008 to 2010**[16]

[16] Sources:

- Federal Motor Transport Authority: Wiederanmeldungen von Gebrauchtwagen im Ausland. Personal communications dated 23 April 2009, 26 March 2010 and 4 March 2011.
- Federal Motor Transport Authority: Fahrzeugklassen und Aufbauarten – Löschungen bzw. Außerbetriebsetzungen in den Jahren 1950 bis 2011 nach Fahrzeugklassen (http://www.kba.de/cln_005/nn_191240/DE/Statistik/Fahrzeuge/Ausserbetriebsetzungen/FahrzeugklassenAufbauarten/a__fzkl__zeitreihe.html)
- Federal Statistical Office: Außenhandelsstatistik 2008, 2009 und 2010, 8-Steller, Gebrauchtwagen, Länderverzeichnis,
- Federal Statistical Office: Table 14 of the Waste Management Surveys, 2008 to 2010, Wiesbaden 2010, 2011 and 2012

ELVs, body shells

- In 2010, the dismantling facilities in Germany accepted 503,208 end-of-life vehicles, of which 500,193 came from within Germany (=W).
- According to the statistics on "Transboundary shipment of waste requiring notification" [17], no "scrapped passenger cars" (Nr. 8.11) were exported from Germany in 2010.

Table 6 Exports of used cars, end-of-life vehicles and pre-treated body shells from Germany

Reference year 2010	Unit	To other EU Countries	To non-EU Countries
Used vehicles exported (see Table 4 and Table 5)	Number	approx. 761,000	278,222
Average age of used vehicles exported	Years	Unknown	Unknown
ELVs exported (see COM Table 3)	Number	0	0
De-polluted (and dismantled) body shells exported (waste code 16 01 06)	Number	35,234 [18]	
	Tonnes	27,389	

2.3.3 Section 3: Elements related to methods and quality of Sections 1 and 2

a) How do you assess the quality of the information on both the national vehicle market and the export market?

National vehicle market

The sources of data on the national vehicle market are stated in the footnotes to Table 3. The figures on new registrations, total registered fleet, average age and off-road notifications originate directly from the Federal Motor Transport Authority and are based on the official vehicle registrations. Their quality is therefore considered very good. Since the sum for vehicle classes M1 and N1 cannot be read off directly from these sources, the data is given for all motor vehicles and, in addition, for the subset "passenger cars".

Since the changeover from final and temporary deregistrations to off-road notifications, the number of final deregistrations can no longer be determined directly from the statistics. The

[17] See COM Table 3 and the waste export statistics: http://www.umweltbundesamt.de/abfallwirtschaft/abfallstatistik/dokumente/ZeitreiheExportAbfallarten.pdf.

[18] Converted with the average weight of body shells of 777 kg. The average weight was calculated from the total mass and the total number of body shells in shredder facilities in 2010 (accepted from within Germany and abroad): Total mass 554,860 t / Total number: 713,791 units = 777 kg/unit.

calculation is therefore based on the Federal Motor Transport Authority's estimate at the time of conversion that about 60 % of off-road notifications are temporary.

The number of end-of-life vehicles arising comes from the waste statistics of the Federal Statistical Office, which originate from a full-coverage survey of all dismantling facilities. This indicates good quality (see also the remarks on the data quality of the figures for end-of-life vehicles in Section 2.1.2).

Used car exports

The data on exports of used cars to EU Member States originates from the exchange of information under Article 9 of Directive 1999/37/EC on the registration documents for vehicles. As this exchange has grown steadily in recent years, it can now be assumed that it provides a largely complete picture of re-registrations of used cars in the EU Member States. The figures cover 20 of the 26 possible EU Member States. The figure of 0.76 million must therefore be regarded as the lower limit of actual exports. Since the list of countries does not include Germany's neighbour France (data from November 2010 onwards only), nor Greece or Slovenia, the actual volume of exports can be assumed to be somewhat higher (in the region of around 60,000).

The figures for exports of used cars to non-EU countries come from the foreign trade statistics. While these include all countries worldwide, they suffer from the familiar problem of notification thresholds. Since these are lower than for exports within the EU, it may be assumed that the figures cover a fairly high proportion of actual exports.

Cases of used car transits from Germany through another EU state to a non-EU state would not be covered by the extra-EU foreign trade statistics. Neither would such exports be covered by the exchange of information under Directive 1999/37/EC on the registration documents for vehicles if the car was not re-registered in the transit country. No information is available about any informal exports for purposes other than reuse.

It can be seen from Figure 3 that there is currently no statistical evidence of the fate of approximately 1.3 million of the 2.9 million or so vehicles finally deregistered in 2010.

However, since there is no concrete indication of the size of the share missing from the statistics, it was decided not to extrapolate the actual exports from the figures in the statistics. The export figures must be regarded as lower limits in each case.

b) Describe the source of information, the quality of sources, the completeness (coverage rate) and the validation process.

c) If Foreign Trade Statistics (FTS) are used as a source for the reporting of export of used cars, please explain how you estimate the amount which is not reported due to the (monetary) reporting thresholds for export.

d) How did you correct for unofficial imports and exports, e.g. where used cars are exported but not for reuse as a car.

For information on items b) to d), see under a)

3 Supplement: Development of end-of-life vehicle disposal and recycling/recovery rates since 2004

Development of ELV quantities

Between 2004 and 2008, the number of end-of-life vehicles fell from 0.54 million to 0.42 million, rising to 1.78 million in 2009 as a one-off effect of the Environmental Premium, and dropping again to roughly its pre-2009 level in 2010 - see Figure 4.

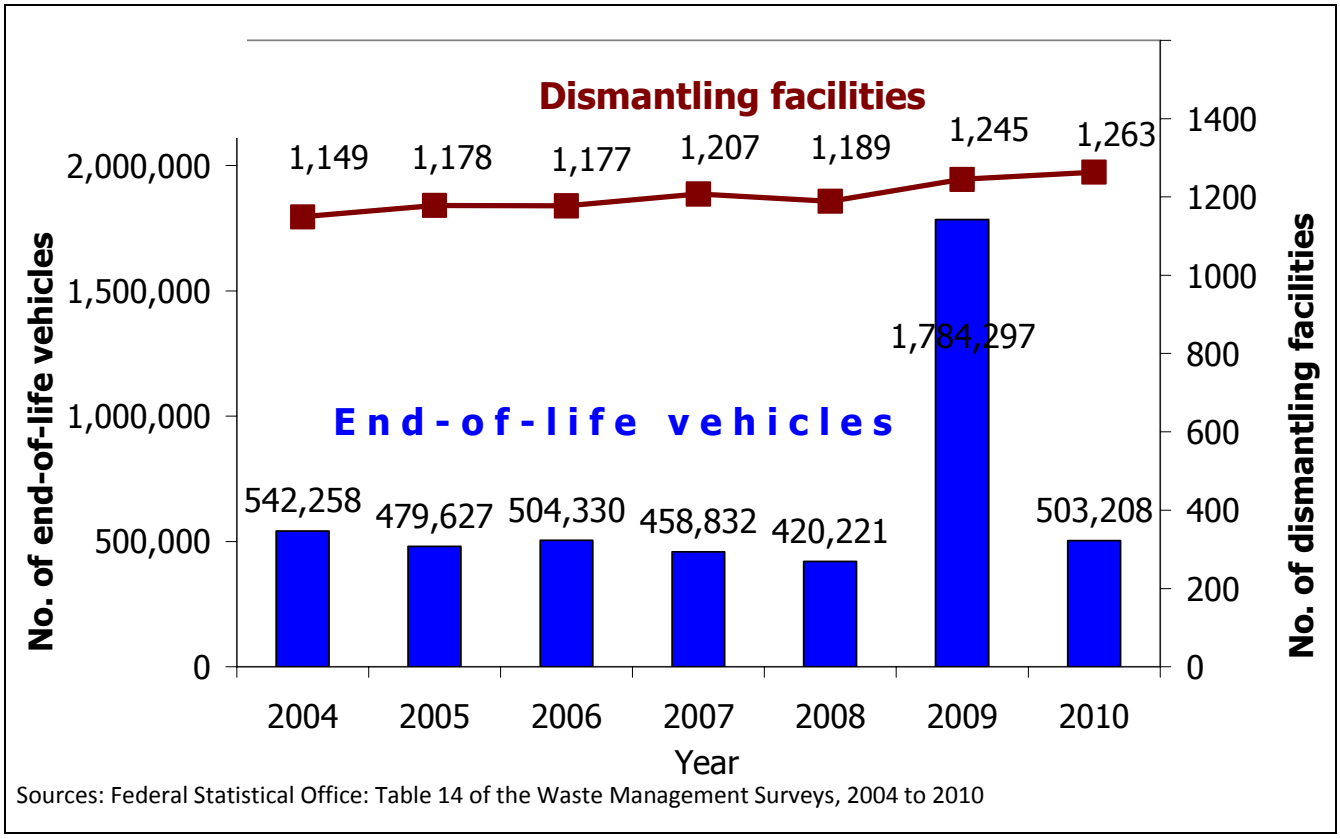
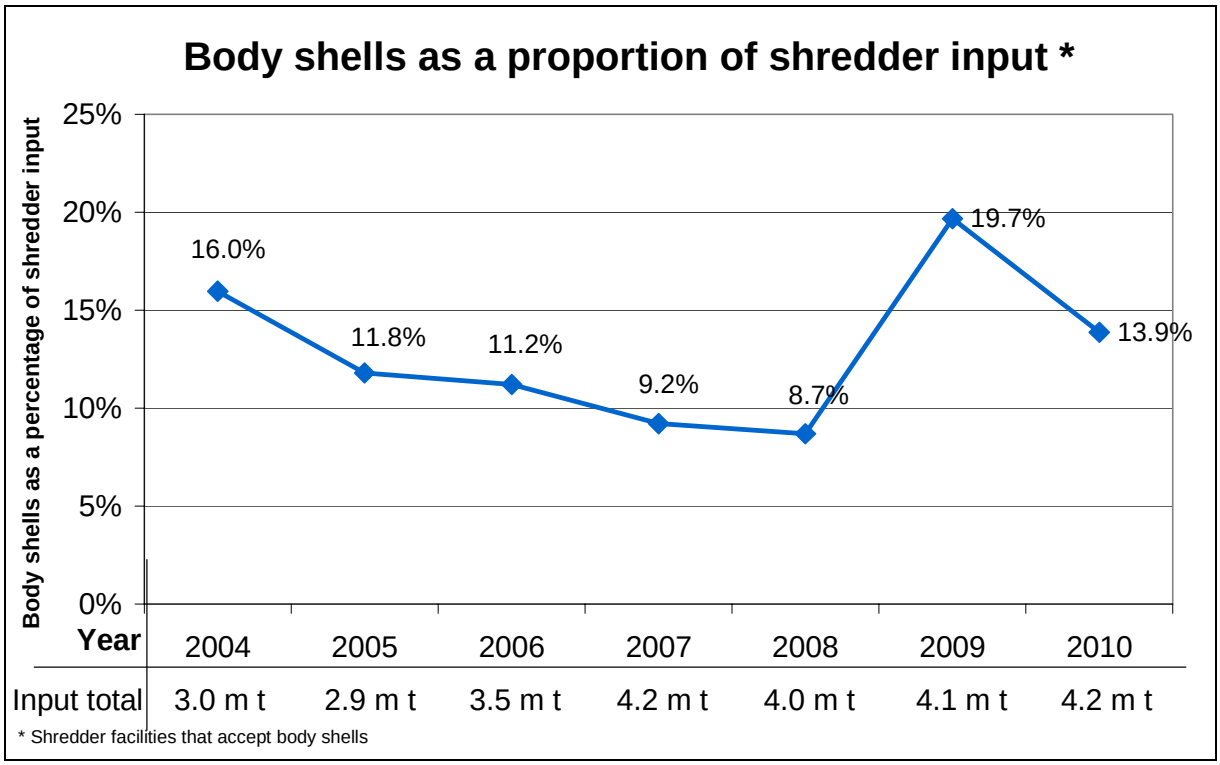


Figure 4 **Development of ELV quantities (total, delivered from within Germany and abroad) and the number of dismantling facilities in the waste statistics, Germany since 2004**[19]

Between 2004 and 2008, body shells as a share of input into shredder facilities that treat body shells fell by half (from 16 % to 8.7 %), but more than doubled again in the year of the Environmental Premium. In 2010, the share of body shells remained fairly high at 13.9 %, due to certain after-effects from the Environmental Premium, see Figure 5.

[19] Note: Figure 4 shows the total number of end-of-life vehicles treated in the dismantling facilities. The figure W (total number of ELVs) which is relevant for calculating the rates is lower, as the ELVs received from abroad are deducted first. The number of dismantling facilities corresponds to the information in the waste statistics of the Federal Statistical Office. Slight discrepancies are possible compared with the number of waste facilities certified under the ELV Ordinance (*AltfahrzeugV*) as determined by GESA (*Gemeinsame Stelle Altfahrzeuge* / Joint Agency for End-of-Life Vehicles), for example because some certified facilities may not actually have accepted any end-of-life vehicles.



Source: Federal Statistical Office, Table 1 of the Waste Management Survey, 2004 to 2010

Figure 5 Development of body shells as a percentage of input into German shredder facilities, 2004 to 2010

Recycling/recovery of shredder light fraction

One important non-metallic waste stream from the treatment of end-of-life vehicles is the shredder light fraction. Whereas 90 % of the shredder light fraction was still being sent for disposal in Germany in 2004, the proportion that is recycled or recovered has increased continuously year on year, and by 2010 only 9 % was sent for disposal - see Figure 6. The diagram shows the total quantity of shredder light fraction treated in shredder facilities that accept body shells. A certain proportion of this is due to body shells (2010: 32 % or approx. 138,500 t out of 436,000 t).

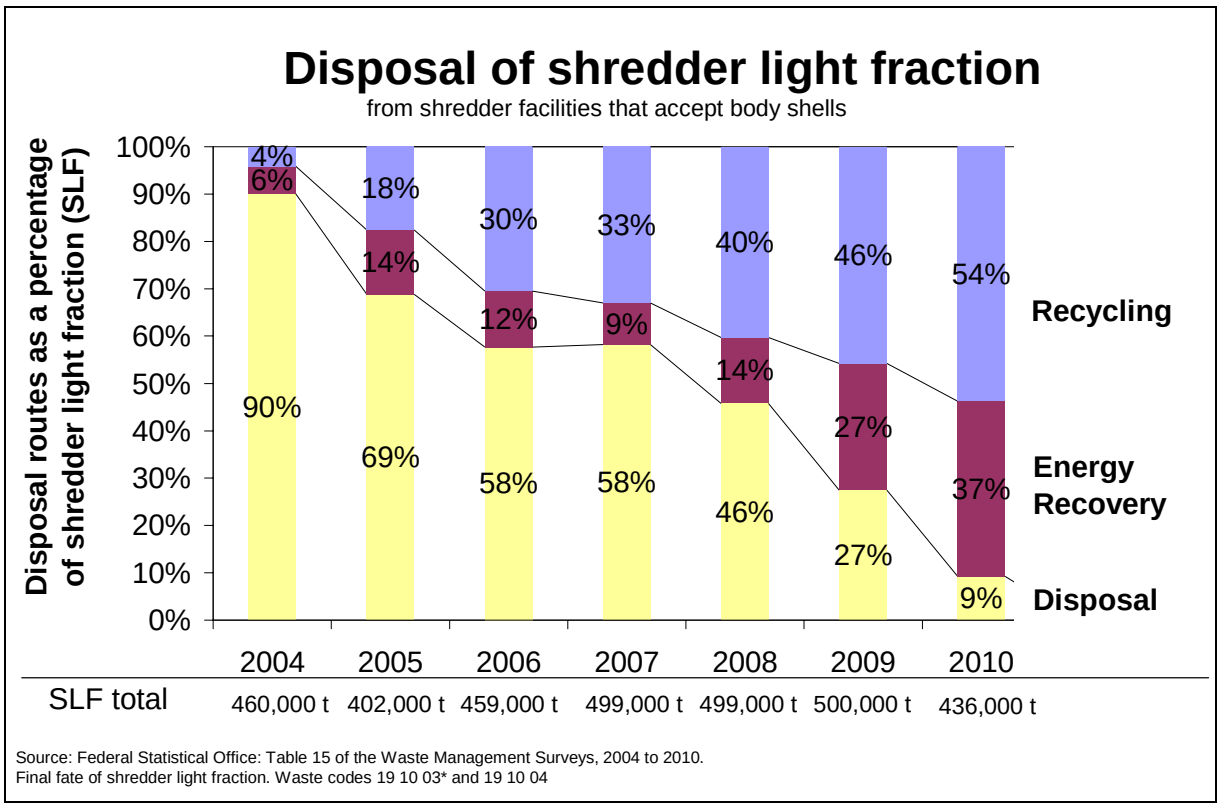
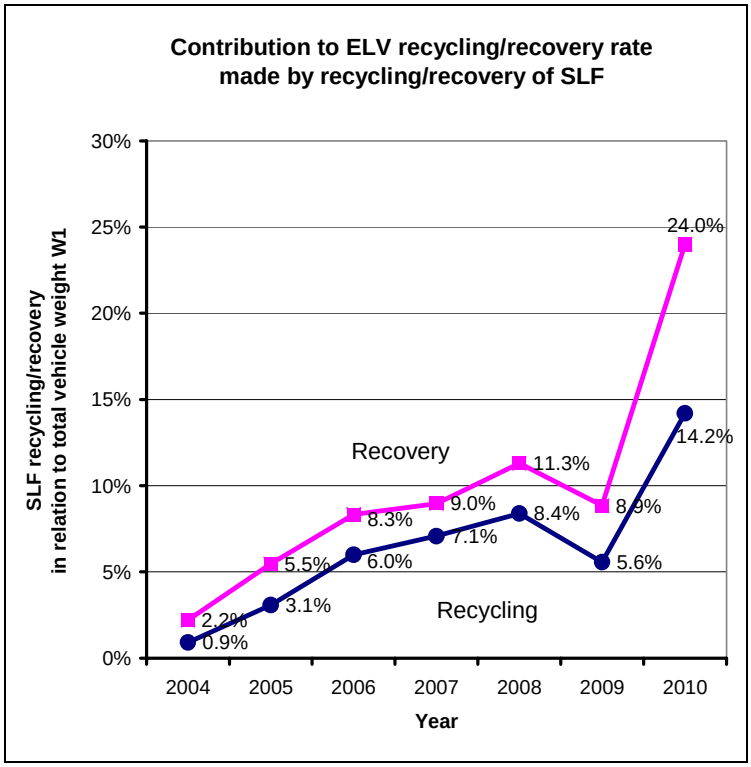


Figure 6 **Disposal of shredder light fraction from shredder facilities treating body shells in Germany, 2004 to 2010**



The contribution made by the shredder light fraction to the ELV recycling/recovery rate rose to 24 % in 2010. The explanation for this exceptional development is that, in addition to the ELVs incurred in 2010, shredding of some ELVs from 2009 was postponed until 2010. Recycling/recovery of shredder residues from both these body shell quantities were reflected in the rate calculated for 2010.

Figure 7 Contribution to end-of-life vehicle recycling/recovery rate made by recycling/recovery of shredder light fraction; figures as a percentage of total vehicle weight W1

Development of ELV recycling/recovery rates

On the basis of the statistical data in combination with other documented parameters, e.g. regarding the metal content assumption (73.6 %), Germany, in 2010, again managed to reach or exceed the EU-wide targets of 80 % for reuse/recycling and 85 % for reuse/recovery.

In 2009, ELV recycling/recovery was driven by the Environmental Premium. Some of the 1.78 million ELVs incurred were not recycled/recovered in 2009, but were instead placed in interim storage. In 2009, this led to comparatively low recycling/recovery rates (decrease of around 6 percentage points in 2009 compared with 2008, see Figure 8). In 2010, part of the backlog was cleared - see Figure 2 in section 2.1.6. As a result, 40 % more ELVs and body shells (more than 700,000 units) were treated and recycled/recovered than were actually incurred in 2010. In 2010, the recycling/recovery of materials from ELV dismantling (27 % compared with 9 % in 2009 and 18 % in 2008) and recycling/recovery of the shredder light fraction was correspondingly high in relation to the approximately 500,000 ELVs incurred. In the case of the shredder light fraction, the decrease in the disposal rate to just 9 % as a result of the ban on the landfilling of untreated waste in force since mid-2009 had a further increasing effect on the rates.

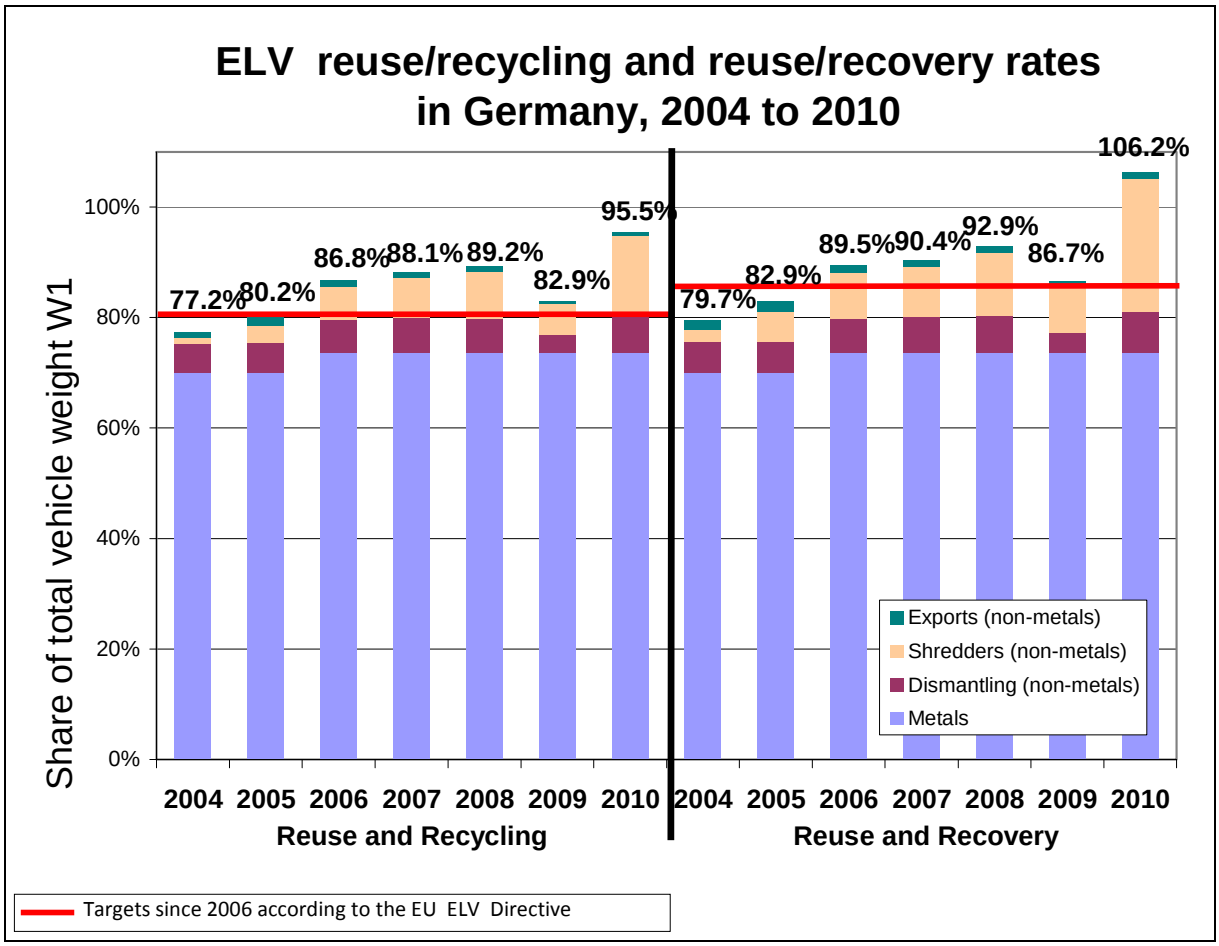


Figure 8 **Contribution of dismantling facilities, shredder facilities and recycling/recovery abroad to ELV reuse/recycling and reuse/recovery rates, 2004 to 2010**

In mathematical terms, the postponed treatment and recovery/recycling of stockpiled ELVs as an after-effect of the Environmental Premium leads to a recovery rate in 2010 of more than 100 % relative to the ELVs incurred in that year. Once the backlog from the era of the Environmental Premium has been cleared completely, the recycling/recovery rates will return to normal.

Appendix to the Quality Report: COM Tables with allocation of metals also to Tables 1 and 3

According to the EU Commission's guide, all recovered/recycled metals are to be entered in COM Table 2 (Shredders) if the "metal content assumption" is applied. However, this representation is not suitable for certain interpretations, such as calculating the specific dismantled battery mass per vehicle. For this reason, an alternative representation of COM Tables 1 to 4 is included in this Appendix, showing the distribution of recovered/recycled metals among COM Tables 1 to 3.

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

COM Table 1 (dismantling) for Germany, 2010 Total metals + non-metals					
Materials from de-pollution and dismantling	**Reuse**	**Re-cycling**	**Energy recovery**	**Total recovery**	**Disposal**
	(A)	**(B1)**	**(C1)**	**(D1=B1+C1)**	**E1**
	[t]	[t]	[t]	[t]	[t]
Batteries	282	14,415	0	14,415	1
Liquids (excluding fuel)	90	3,506	1,123	4,629	1,100
Oil filters	1	96	64	160	16
Other materials arising from de-pollution (excluding fuel)	2	25	236	261	15
Catalysts	86	2,046	0	2,046	31
Metal components	30,402	55,207	0	55,207	100
Tyres	1,675	14,569	0	14,569	203
Large plastic parts	196	1,189	0	1,189	5
Glass	152	1,575	0	1,575	12
Other materials arising from dismantling	7,376	39	964	1,002	3
Total	**40,263**	**92,666**	**2,386**	**95,052**	**1,486**

Source: From Federal Statistical Office data, Tables 1 and 15 of the Waste Management Survey 2010.

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

COM Table 2 (shredders) for Germany, 2010 Proportionate metal shares only				
Materials from shredding	**Recycling**	**Energy recovery**	**Total recovery**	**Disposal**
	(B2)	**(C2)**	**(D2 =B2+C2)**	**(E2)**
	[t]	[t]	[t]	[t]
Ferrous scrap (steel)	235,438	0	235,438	0
Non-ferrous materials (e.g. Al, Cu, Zn, Pb)	25,914	0	25,914	0
Shredder light fraction (SLF)	73,280	50,613	123,893	12,456
Other	0	0	0	0
Total	**334,631**	**50,613**	**385,244**	**12,456**

Source: From Federal Statistical Office data, Table 15 of the Waste Management Survey 2010.

Explanatory comment on the calculation of metal proportions for COM Table 2:

1. *Calculation of recovered/recycled metals (total) = 73.6 % (metal content assumption) * 516 128 t (total vehicle weight W1) = 379,989 t.*
2. *Deduction of metals already recorded in COM Table 1 (dismantling of metals: re-use and recycling/recovery) and COM Table 3 (metal exports).*
3. *Breakdown into ferrous/non-ferrous on a ratio of 66.3 % : 7.3 %*

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

COM Table 3 (exports) for Germany, 2010 Total metals + non-metals					
Components / materials exported for further treatment _____ Total weight, broken down by countries	**Total weight of end-of-life vehicles exported, by country**	**Total recycling of (parts of) end-of-life vehicles exported**	**Total recovery of (parts of) end-of-life vehicles exported**	**Total disposal of (parts of) end-of-life vehicles exported**	**Remarks**
		(F1)	**(F2)**	**(F3)**	
	[t]	[t]	[t]	[t]	
1) End-of-life vehicles (Waste code 160104*)	0	0	0	0	No exports in 2010 according to the statistics on "Transboundary shipment of waste requiring notification" [a)]
Breakdown by countries: -- not applicable --					
2) Body shells from dismantling plants (Waste code 160106)	27,389	21,905	23,274	4,115	Basic figures: 27,381 t vehicles exported for recovery (assumption: 80 %/85 % thereof recovered), 8 t vehicles exported directly for disposal.
Breakdown by countries: -- unknown --					
3) Components from dismantling plants	2,392	2,262	2,384	8	Batteries, tyres, large plastic parts, glass etc.
Breakdown by countries, where known [b)]					
Waste		**Destination countries** for waste exports (total, not just from dismantling plants), included in the waste export statistics:			
- 130205* Engine etc. oils		to the Netherlands			
- 160103 Waste tyres		to Poland			
- 160113* Brake fluids		to Belgium			
- 160601 Lead batteries		to Belgium, Slovenia, Spain, Czech Republic			
- 160807* Catalysts		to Belgium, UK, USA			
- 170402 Aluminium		to Poland			
- 170405 Iron and steel		to Poland			
4) SLF from shredders	2,144	1,180	1,764	381	Total SLF exported: 191,003*: 4,684 t, 191004 : 2,066 t. Of which 32 % from end-of-life vehicles.
Breakdown by countries, where known [b)]					
Waste		**Destination countries** for waste exports (total, not just from ELVs) according to waste export statistics			
- 191003* Shredder light fraction		to Belgium, Canada			
- 191004 Shredder light fraction		to Belgium			
Total	**31,925**	**25,347**	**27,421**	**4,504**	

Source: Federal Statistical Office Waste Management Survey 2010 and waste exports data

Explanatory comments:

a) http://www.umweltbundesamt.de/abfallwirtschaft/abfallstatistik/dokumente/ZeitreiheExportAbfallarten.pdf (No. 8.11) and http://www.umweltbundesamt.de/abfallwirtschaft/abfallstatistik/dokumente/UStatGExport2010.pdf (waste code 16 0104*). The 1,271 t "end-of-life vehicles" exported to the Netherlands shown under 16 01 04* do not refer to road vehicles. As such, these vehicles do not fall within the scope of the End-of-life vehicles Directive. They may be allocated to No. 8.12 "Other scrapped motor vehicles", but not to No. 8.11 "Scrapped passenger cars".
b) Sources:
b1) Waste exports from end-of-life vehicle dismantling plants: "Erhebung über die Abfallentsorgung im Jahr 2010" (Waste Management Survey, 2010), Table 15, Federal Statistical Office.
b2) Total waste exports for Germany: "Abfallstatistik: Grenzüberschreitende Verbringung von zustimmungspflichtigen Abfällen" (Waste statistics: Transboundary shipment of waste requiring notification), Federal Environment Agency, June 2011: http://www.umweltbundesamt.de/abfallwirtschaft/abfallstatistik/dokumente/UStatGExport2010.pdf

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

COM Table 4 (rates) for Germany 2010						
From ...		**Reuse**	**Total recycling**	**Total recovery**	**Total reuse and recycling**	**Total reuse and recovery**
		(A)	**(B1 + B2 + F1)**	**(D1 + D2 + F2)**	**(X1=A+B1+B2+F1)**	**(X2=A+D1+D2+F2)**
		[t]	[t]	[t]	[t]	[t]
Tab1:	Dismantling (A,B1,D1) (metals + non-metals)	40,263	92,666	95,052	132,929	135,315
Tab 2:	Shredders (B2, D2) (metals + non-metals)		334,631	385,244	334,631	385,244
Tab 3:	Exports (F1, F2) (metals + non-metals)		25,347	27,421	25,347	27,421
Total		**40,263**	**452,644**	**507,718**	**492,907**	**547,981**

				Recycling and recovery rates 2010	
W	**(total number of end-of-life vehicles)**	**500,193**	**vehicles**	**95.5 %**	**106.2 %**
W1	**(total vehicle weight)**	**516,128**	**tonnes**	**X1/W1**	**X2/W1**