This article provides an overview of statistical information on end-of-life vehicles in the European Union over the period 2008-2017. End-of-life vehicles are vehicles that are demolished or otherwise disposed of after reaching the end of their useful service. The data cover end-of-life passenger cars and light goods vehicles such as vans and pick-ups. Information and data are based on the Directive 2000/53/EC on end-of-life vehicles and the Commission Decision 2005/293/EC, which lays down rules on monitoring the reuse/recycling and reuse/recovery for end-of-life vehicles. Each year, EU Member States and EEA/EFTA countries report data on the total vehicle weight and total number of end-of-life vehicles and rates for ‘total reuse and recycling’ and ‘total reuse and recovery’.

**Number of end-of-life vehicles**

The total number of end-of-life vehicles reported in the European Union reached 5.3 million in 2017, sharply up from the 4.8 million recorded the previous year, and the highest since 2011 (see Table 1). However, the number of end-of-life vehicles was still well below the levels recorded in 2009 (7.7 million) and 2010 (6.2 million), when national scrapping schemes introduced in the context of the financial crisis stimulated the dismantling of older vehicles. Three Member States established scrapping schemes in 2008, twelve in 2009 and one in 2010.¹

¹IHS, Global Insight: Assessment of the effectiveness of scrapping schemes for vehicles, prepared for DG Internal Market, Industry, Entrepreneurship and SME’s (March 2010)
During the period 2015-2017, EU Member States were required to meet rates for reuse and recycling of ≥ 85 % and for reuse and recovery of ≥ 95 % by an average weight per vehicle. The reported rates are shown in Tables 2 and 3. In 2017, the reuse and recycling rate for end-of-life vehicles in the EU stood at 87.8 %, up 0.7 percentage points from 2016 (see Table 2). This continued a trend of increasingly higher reuse and recycling of end-of-life vehicles in the EU, with the reuse and recycling rate increasing (or remaining at the same level) every year since 2009. Eleven EU Member States reported reuse and recycling rates higher than 90.0 % in 2017, with another twelve Member States reporting rates falling in the range of 85.0 % to 89.9 % and three Member States reporting rates falling in the range of 82.5-84.9 %; estimates from the last available year apply for missing reporting countries. Malta reported a rate of 95.5 % in 2016, as parts of materials arising from de-pollution and dismantling are stored at the site of authorised treatment facilities, pending export for further treatment at favourable market prices also to limit shipments expenses; therefore, Malta did not report such materials in any of the tables pursuant to Commission Decision 2005/293/EC.
The picture is relatively similar for the reuse and recovery rate. The rate for the EU has risen from 85.3% in 2009 to 93.6% in 2017, increasing every year in this period, except in 2016 (-0.1 percentage point) (see Table 3). Sixteen Member States reported rates above 95.0% and seven Member States reported rates falling in the range of 90.0% to 94.9% in 2017; estimates from the last available year apply for missing reporting countries. For the same aforementioned reason, Malta reported a rate of 54.4% in 2016.

### Table 2: Total recycling and reuse rate of end-of-life vehicles, 2008–2017 (% of weight of vehicles)

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[Source: Eurostat (env_waselvt)]

### Table 3: Total recovery and reuse rate of end-of-life vehicles, 2008–2017 (% of weight of vehicles)

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[Source: Eurostat (env_waselvt)]
Figure 1: Reuse/recovery and reuse/recycling rates for end-of-life vehicles, 2017(% of weight of vehicles)

Source: Eurostat (env_waselv)

Total weight of end-of-life vehicles

Two sources can be considered for the total weight of end-of-life vehicles: the total vehicle weight derived from the registration documents or similar, or the sum of the amounts reported for de-pollution and dismantling, shredding and export. These sources do not necessarily match perfectly, but they should show a similar order of magnitude.

In 2017, the end-of-life vehicles in the EU were reported to have a total vehicle weight of 5.7 million tonnes, according to their registration papers. This was sharply up from the 5.2 million tonnes reported in 2016, and the highest volume recorded since 2010. The total weight is influenced both by the weight of individual vehicles and the number of vehicles being scrapped. Thus, as detailed above, the national scrapping schemes in 2009 and 2010 led to highs in the number of end-of-life vehicles and as a consequence also in the total weight. The total weight of end-of-life vehicles peaked at 7.1 million tonnes in 2009, and maintained a high level with 6.1 million tonnes in 2010. Following the end of these schemes, the total weight remained relatively stable at between 5.1 and 5.3 million tonnes between 2012 and 2016.
Table 4: Total vehicle weight according to registration papers, 2008–2017(tonnes)Source: Eurostat (env_waselvt)

Source data for tables and graphs
- End-of-life vehicles Excel file

Data sources
The management of end-of-life vehicles and the data requirements for monitoring the implementation of this process is laid down in Directive 2000/53/EC on end-of-life vehicles.

Commission Decision 2005/293/EC provides details for the reporting required. Data are submitted on an annual basis and have been available with good coverage since 2006. Data should be submitted within 18 months after the end of the reporting year.

Comparability
A guidance document aimed at harmonising the reporting and improving comparability is available; however, some inconsistencies remain and not all detailed figures reported are directly comparable. Some selected aspects regarding comparability are highlighted in the following paragraphs.

Different methodological approaches: 'Metal content assumption' or all data based on reports of the operators
The Commission Decision 2005/293/EC on monitoring reuse/recovery and reuse/recycling for end-of-life vehicles enables different approaches. One possibility is reporting based on files provided by operators. Alternatively, some countries apply the so-called 'metal content assumption' (MCA) approach and report all metals, regardless of whether metals are separated during de-pollution and dismantling, shredding, or whether metals are exported.

Reporting export data
Data on export of end-of-life vehicles and parts of them shall be reported according to Commission Decision 2005/293/EC . The term 'end-of-life vehicles and parts of end-of-life vehicles’ does not cover only entire end-of-life vehicles, but also de-polluted/pre-treated end-of-life vehicles (hulks) and waste from treatment such as material and components from dismantling and shredder output. However, in practice not all countries have been able to distinguish whether the outputs of dismantling and de-pollution or the outputs of shredders are exported or not.

End-of-life vehicle statistics
Context

History

During the course of the late 1980s and early 1990s EU Member States were facing several challenges in the waste processing of end-of-life vehicles, therefore Directive 2000/53/EC and Commission Decision 2005/293/EC provide measures to reduce environmental harm due to inappropriate depollution and disposal of car bodies:

- Charges on recycling and disposal services provided limited motivation to the last owner to abide by the law when disposing end-of-life vehicles. Directive 2000/53/EC obliges the Member States to take the necessary measures to ensure that all end-of life vehicles are transferred to authorised treatment facilities.

- In order to reduce the very high volumes of shredding process residues, containing several pollutants and chemicals, Directive 2000/53/EC established targets for mandatory de-pollution, as well as quantified targets for reuse, recycling and recovery of vehicles and their components, pushing producers to design and manufacture vehicles with a view to their recyclability.

- Different disposal conditions amongst EU Member States were causing high shares of import/export of end-of-life vehicles inside the EU. To monitor this practice, in addition to the aforementioned measures, the recycling and recovery rates from exported vehicle parts are credited to the exporting Member State, according to Commission Decision 2005/293/EC.

Coverage and targets

Type of vehicles covered:

- Passenger cars with up to 8 places + driver
- Vehicles for transport of goods up to a weight of 3.5 tonnes

(see more details in Article 2(1) of the Directive 2000/53/EC on end-of-life vehicles)

Regional coverage:

- European Economic Area (EEA): EU + Iceland, Norway, Liechtenstein
- As a new Member State (from 1 July 2013) Croatia has reported data for 2012 for the first time

Targets:

- According to the Directive 2000/53/EC on end-of-life vehicles the countries have to introduce systems to ensure that the following targets are attained by economic operators:

2008-2014:

- reuse/recovery rate: 85 %
- reuse/ recycling rate: 80 %

2015 - 2017:

- reuse/recovery rate: 95 %
- reuse/recycling rate: 85 %

No exemptions or transitional periods are in place, thus countries of the EEA have to comply with the targets.
Other articles

- Environment statistics introduced
- Municipal waste statistics
- Packaging waste statistics
- Waste shipment statistics
- Waste statistics
- Recycling – secondary material price indicator
- Waste shipment statistics based on the European list of waste codes
- Waste statistics - electrical and electronic equipment
- Waste statistics - recycling of batteries and accumulators

Database

- Waste (env_was), see:

  Waste statistics (env)

  Waste streams (env_wasst)
  - End-of-life vehicles by waste operations: Detailed data (env_waselv)
  - End-of-life vehicles: Reuse, Recycling and Recovery, Totals (env_waselvt)

Dedicated section

- Eurostat’s dedicated website on waste statistics

Legislation

- Summaries of EU legislation: End-of-life vehicles

External links

- DG Environment: End-of-life vehicles (website)
- GHK and Bio Intelligence Service: A study to examine the benefits of the End of Life Vehicles Directive and the costs and benefits of a revision of the 2015 targets for recycling, re-use and recovery under the ELV Directive, Final Report to DG Environment (May 2006)
- European Parliament: Study on end-of-life vehicles: Legal aspects, national practices and recommendations for future successful approach (October 2010)