

**Policy Department
Economic and Scientific Policy**

End of Life Vehicles (ELV) Directive

An assessment of the current state of implementation by Member States

(IP/A/ENVI/FWC/2006-172/Lot 1/C1/SC2)

This study was requested by the European Parliament's Committee on the Environment, Public Health and Food Safety

Only published in English.

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Manuscript completed in March 2007.

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Acknowledgements

The authors at the Institute for European Environmental Policy (IEEP) would like to thank the various colleagues who undertook the national case studies. These were: Catherine Bowyer (IEEP, London), Alena Dodoková (IEP, Prague), Kristof Geeraerts (IEEP, Brussels), Gábor Harangozó (Corvinus University, Budapest), Peter Hjerp (IEEP, London), Alexander Neubauer (Ecologic, Berlin), Frans Oosterhuis (IVM, Amsterdam), and Carolina Valsecchi (IEEP, London).

We are also grateful for the contributions of stakeholders to whom they spoke in the course of the research for this report. Thanks are also due to Ian Skinner, now at AEA Technology, who managed a bulk of the project and commented on drafts. As ever, responsibility for any errors remains with the authors.

**STUDY FOR THE EP COMMITTEE ON ENVIRONMENT, PUBLIC HEALTH AND
FOOD SAFETY**

IP/A/ENVI/FWC/2006-172/C1/SC2

**END-OF LIFE VEHICLES (ELV) DIRECTIVE:
ASSESSMENT OF THE CURRENT STATE OF IMPLEMENTATION BY MEMBER
STATES**

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EXECUTIVE SUMMARY

Introduction

The proposal for a Directive on End-of Life Vehicles (ELVs) was the first to arise from the Commission's priority waste streams programme, and it is well known that most Member States and car companies experienced difficulties in implementing it. This report provides an assessment of various aspects of the ELV Directive¹ that were of particular interest to the European Parliament's Environment, Public Health and Food Safety Committee, on the basis of a series of case studies. It focuses in particular on transposition of the Directive; free take back and disposal arrangements; and the extent to which recycling targets were met.

Cars and Car Scrappage

The quality of statistics on car scrappage is extremely variable across Europe, although there are signs that the Directive itself is beginning to bring about some improvements in this. In some countries, though, it is not yet even possible to estimate precisely how many end-of life vehicles are being scrapped each year, as by no means all older cars are yet disposed of as prescribed under the Directive:

- Export of second-hand cars before they reach their end of life is an important (and possibly growing) feature of the European car market.
- The legitimate second-hand trade masks some illegal activities, such as the export of wrecked or stolen cars.
- A significant number of cars in some countries are being scrapped by unlicensed operators who remove the economically desirable parts.
- Some cars are still abandoned rather than properly scrapped.
- Some end-of-life vehicles are 'garaged' rather than scrapped.

In most cases, it should be stressed that these practices predate the implementation of the ELV Directive and were not therefore caused by it. Little evidence was found that the ELV Directive has adversely affected the levels of such practices, and the requirement to provide free take back seems to have led to some improvements in the disposal of old cars in some cases.

General Implementation of the Directive

A small number of countries with a good level of resource, effective administrative systems, and early experience of operating a highly regulated system of car disposal, have been able to implement the directive relatively smoothly. The Netherlands and Sweden are good examples in this respect, with Sweden having enacted its first car scrappage law in 1975, and implemented producer responsibility from 1998. Germany and Austria also implemented the Directive in a systematic and quite timely way.

Many, however, have experienced significant difficulties, delays and setbacks in implementing the Directive. Reflecting this, the Commission has taken some form of legal action against most of the EU-15 Member States in relation to this Directive, in particular for late implementation. The EU-10 have also experienced additional problems as outlined below.

¹ Directive 2000/53/EC of the European Parliament and of the Council on end-of life vehicles
IP/A/ENV/ST/2006-29

There are a number of reasons that have contributed to these problems and help to explain the particular difficulties being experienced. Some of these are inherent in the complexity of the tasks required, and some arise from the specific terms and requirements of the Directive.

- Waste disposal arrangements vary significantly in detail and in effectiveness from one state to another. Many of these arrangements date back many years, and were not originally designed to meet the requirements of the ELV Directive.
- The Directive sought to make producers responsible for the cost to take back their products, not only for those yet to be put on the market, but also for those already on the market. The latter proved particularly controversial and was strongly opposed by the carmakers, and the Directive did not specify how the disposal of these cars would be funded during the transition period of 2002-2007.
- The requirements of the Directive have increased the cost of car disposal, for example by requiring levels of reuse and recycling that will force all countries to go beyond the recycling of scrap metal, which was generally economically viable, and to begin to address recycling of other materials, combustion of certain wastes with heat recovery, etc.
- Administrative arrangements have also been complex. For example, some of the requirements of the Directive need the establishment of national systems or standards, whereas waste management is often the responsibility of the Regions or municipal authorities. Other responsibilities may have been given to a national EPA², or may rest with local authorities. Furthermore, in some countries, strict environmental standards and licensing requirements have been imposed on car dismantlers and scrappers for the first time, and this has been demanding in terms of resources for inspection and administration.
- In most Member States the requirements for reporting and for certificates of destruction have required whole new systems, procedures and administrative structures to be put in place.
- Car manufacturers hitherto did not have to regard the disposal of their products as a part of their core business. Where a clearinghouse authority was established to mediate between manufacturers and dismantlers, things appear to have gone relatively smoothly. Elsewhere, however, manufacturers have clearly struggled to get to grips with understanding the diverse waste management systems of 25 different Member States.
- Countries from the EU-10 have experienced particular difficulties arising in part from specific aspects of their car fleets and historic disposal arrangements, but also from their relatively recent adoption of the *acquis communautaire*. More generally, those countries that do not have a high level of administrative resource in the relevant areas have found it particularly difficult to implement this complex Directive effectively
- As noted above, there are a number of routes to the disposal of a vehicle, some legal, and some not. Where the Directive requires extra procedures and incurs extra costs in disposal, there is an obvious disincentive for full compliance, and additional enforcement action is needed to ensure that more cars are covered by the system.

² EPA, Environment Protection Agency

Most of the difficulties listed above can be overcome given sufficient time, effort, and resources. In many cases there is evidence that delays and problems are of a transitional nature and can and will be solved in due time. Indeed, some problems have already been or are being addressed, both in the transposition of the legislation itself, and in its implementation. More specifically, where figures are available they do generally show progress towards the reuse, recovery and recycling targets, as discussed below.

Free Take Back

In most Member States, the central requirement for free take back has been implemented, improving conformity with the Directive's standards and encouraging last owners to deliver their cars for disposal.

In some cases it was observed that certain administrative charges were being levied, and hence take back was not completely free as it ideally should be. It was further argued that transporting a vehicle to a disposal site could incur a significant cost for vehicles unable to be taken to the site under their own power. In only a few countries such costs for transport to disposal appear to be also covered under free take back; elsewhere this may remain a barrier to complete take-up.

On a related matter, the density of the disposal network appears at this time to vary substantially from country to country. To some extent this reflects different levels of ambition in different Member States, but it may in some cases also be a question of transition where implementation has been slow, and networks are still being built up and new sites licensed.

In general, the financial arrangements between the various actors appear to have worked well when there is an established clearinghouse organisation to handle the flow of payments and documentation. In Sweden and the Netherlands, scrappage is funded by a charge applied to all new cars. Things seem to have gone less smoothly elsewhere, with voluntaristic attempts to create clearinghouse systems having failed in some cases. Where no such system exists, a great number of transactions have to be dealt with both by car manufacturers and by dismantlers and scrappers. Disputes over the level of charges and costs have been reported in several countries.

During the transition period, there has been a particular difficulty over who should bear the costs of cars already on the roads before 2002. In countries which had existing funds to handle disposal of end-of-life vehicles, this appears not to have been a problem. Elsewhere, though, manufacturers have been extremely resistant to incurring extra costs prior to the date on which this was made mandatory by the Directive, and in such cases, final owners continued to have to bear any costs during the transition period. Fortunately, a sharp rise in the value of scrap metal over this period helped to offset such costs.

Implementation and Achievement of Recycling and Recovery Targets

Although the first set of reuse, recycling and recovery targets relates to 1 January 2006, it is still too early to draw definitive conclusions as to whether these targets have been widely met or not. That is, the many countries that implemented the Directive rather late still do not have reliable reporting systems in place to allow firm conclusions to be drawn as to the percentages of material that are being reused or recovered in some way, and even the more 'advanced' countries are likely to experience some delays in assembling definitive data.

There are also a range of other reasons why data remain incomplete and are often estimates at best. Furthermore, in countries where only a relatively small proportion of vehicles are being scrapped fully under the aegis of the Directive and have received a certificate of destruction to prove it, the data available have to be regarded as selective and not fully reliable.

Sweden and the Netherlands already reached the 85% target for reuse and recovery in 2005. The Netherlands even met the reuse and recycling targets by 1997; but this situation is rather exceptional. Belgium met the 80% reuse and recycling target in 2005, but it is still unclear whether it will reach the 85% reuse and recovery target.

In general, a few of the countries that had made an early start in implementing strong targets for cars are on track to meet the reuse and recycling targets, but most fall somewhat short. By weight, it is possible to get a long way towards the reuse and recycling target simply by recycling scrap metal parts of a vehicle, particularly iron and steel, which is in any case economic to do. Hence it seems likely that a number of other countries will have met the 80% reuse and recycling target, or at least will do so soon.

However, further efforts are needed in order to reach the reuse and recycling targets in full, typically including greater efforts to recycle glass, plastics and other materials. Only a few Member States have so far implemented such systems, though more are now seeking to do so. It appears, however, that there is little or no market for some of these recycled materials. A few are also considering more advanced systems to sort the light shredder fraction and 'fluff' that remains after the main recyclable components have been dismantled.

The reuse and recovery targets are also proving challenging in almost all Member States, with few likely on current trends to reach the target, although some others will come close. Some are now looking actively at the possibility of incineration with heat recovery of parts of the post-shredder waste stream in order to comply.

Wider Implications

It is sobering to reflect on how many difficulties have been encountered in seeking to impose a regime of safe and sustainable disposal of end-of-life vehicles, and a degree of producer responsibility. It can be concluded that many problems, possibly more than currently observed, will arise in efforts to improve the reuse, and recycling and recovery of materials from other waste streams, most obviously under the WEEE Directive³.

³ Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

INTRODUCTION AND BACKGROUND

Background to the Report

The proposal for a Directive on End-of Life Vehicles (ELVs) was the first to arise from the Commission's priority waste streams programme, which sought to bring together government, environmental and industrial interests with the aim of building a consensus to identify how to address such major waste streams. The aim of the ELV proposal was to address the estimated 8 to 9 million tonnes of waste generated annually from the disposal of ELVs. Around 25 % of this waste was considered to be hazardous, which amounted to around 10 % of the total hazardous waste generated each year in the EU, and was landfilled.

The proposal was first published in July 1997, but its progress in both the Parliament and Council was slow as a result of the concerns of some Member States and the motor industry. Not only did the Directive propose considerably more stringent arrangements for the take back and disposal of ELVs than those that were in place at that time in most Member States, but it also sought to make producers responsible for the cost of take back of their products, not only for those yet to be put on the market, but also for those already in use. The latter proved particularly controversial and was strongly opposed by the carmakers.

When the Directive⁴ came into force, it quickly became clear that many Member States were struggling to implement some of its requirements, and enforcement actions by the Commission followed. Carmakers also complained bitterly about the difficulties of dealing with different waste management systems and different administrative arrangements in each Member State.

Given these difficulties and the fact that this was the first Directive that sought to impose major new environmental requirements for a priority waste stream and a degree of producer responsibility, the European Parliament's Environment, Public Health and Food Safety Committee considered that it would be valuable to undertake an independent assessment to see what lessons might be learned. In addition, the principal reuse and recovery targets of the Directive were intended to be met in 2006, while the last of the main provisions of the Directive should have come into force on 1 January 2007. It therefore appeared timely to undertake an assessment of progress now.

Purpose of the Report

The purpose of this report is to undertake an assessment of various aspects of the ELV Directive that were of particular interest to the European Parliament's Environment, Public Health and Food Safety Committee. The report therefore addresses primarily the following questions and is structured accordingly:

- **Transposition** – Article 10(1) required Member States to have implemented the Directive by 21 April 2002 (new Member States by accession), but this was not achieved in all cases. When did legislation to implement the Directive enter into force? Did those dates correspond with what it is required by the Directive? What enforcement action has the Commission taken against each Member State? How did the Member State respond, and have the reasons for the enforcement action now been addressed?

4 The ELV Directive covers any vehicle designated as category M1 or N1 defined in Annex IIA to Directive 70/156/EEC, and three wheel motor vehicles as defined in Directive 92/61/EEC, but excluding motor tricycles. Classification of the relevant vehicles is as follows: Category M1 are vehicles used for the carriage of passengers and comprising no more than 8 seats in addition to the driver's seat – i.e. cars; Category N1 are vehicles used for the carriage of goods and having a maximum weight not exceeding 3.75 metric tons – i.e. light vans. In this context 3-wheeled vehicles are small cars or vans with only 3 wheels, but not motor tricycles.

- **Free take back** – Article 5(4) of the Directive required Member States to ensure that the last owner of the vehicle could return the vehicle to a treatment facility at no cost. Article 12(2) states that Article 5(4) applies to vehicles put on the market after 1 July 2002 from that date (i.e. 1 July 2002) and to all vehicles (no matter when they were put on the market) from 1 January 2007. How and when did the Member States implement this aspect of the Directive? Were changes to existing systems necessary or have new systems been put in place? If there were any delays in transposing the provisions of Article 5, what were the reasons for these?
- **Reuse, recycling and recovery targets** – Article 2(a) requires Member States to take measures to ensure that, by 1 January 2006, ‘economic operators’ on average reuse and recover annually at least 85 % of ELVs by weight and reuse and recycle at least 80 %. What measures has each Member State taken to increase the reuse, recovery and recycling of ELVs since 2000, and have these been successful in meeting targets?
- **Other issues** - Were there any specific issues or problems in the Member States arising from the requirements of the Directive (for example, in relation to the ban on the use of certain hazardous substances (Article 4(2))?

Note that this is an overview report based primarily on case studies, in order to address some of the broader themes of the Directive and its implementation and to highlight general lessons learned. The case studies sought to answer the questions set out above, but fall far short of a detailed legal analysis of the Member States’ compliance with the terms of the Directive, and should not be taken as such.

Methodology

The analysis is based on case studies from a representative sample of Member States, as it was judged impractical to survey them all with the resources available. Case studies were structured around responses to a short questionnaire reflecting the main themes and questions set out above. Each case study was undertaken by a national expert, and the results were subsequently compiled and analysed by IEEP. The content of the questionnaire is set out in Annex I.

The experts used a range of information sources in compiling their reports, including the following:

- Relevant documentation produced by the Commission and the European Court of Justice, including that for the purposes of legal proceedings;
- Review of legislation and other relevant government documentation, including national impact assessments;
- National progress reports and other data sources;
- Documentation produced by NGOs, industry (manufacturers, but also the recycling industry), other stakeholders (e.g. local authorities) on the issue;
- Interviews with representatives of NGOs, industry, other stakeholders, government.

The authors sought to select a representative range of Member States, including some of the newer Member States, in order to capture the particular difficulties and issues that might arise across the Community as a whole. Our choices and rationale for selecting particular countries were to ensure a diverse range of conditions in terms of car markets and local environmental laws. We also had some information on which to judge which countries had implemented the system well and which had experienced specific problems, so we were able to choose diverse situations to illustrate a range of problems and solutions.

Our final choices were as follows:

- Several of the large Member States with significant car fleets and manufacturing interests from the EU-15 (Germany, United Kingdom, Italy);
- Similarly for EU-10 (Hungary, Czech Republic);
- Two states that were known to have implemented the Directive well (Sweden, the Netherlands);
- Other small to medium-sized states in a range of geographical situations (Ireland, Austria, Belgium);
- A small island state (Malta).

AUSTRIA

Introduction to ELVs in Austria

The automotive industry is of considerable importance in Austria. Cars and other vehicles are produced in the country (for instance buses, tractors, lorries, military equipment; see e.g. MAN Austria). In particular, the production of lorries and lorry parts is of economic importance. Even though there is a significant production of cars (230,505 units produced in 2005⁵), nearly all are exported: only a small number of models belonging to mainly European (often German) car manufacturers are produced for use within the country (of the 230,505 units of cars and vans produced in 2005 in the country, 224,398 were exported.⁶) In this sense, then, the problem of end-of life vehicles is one that concerns mainly retailers and importers of vehicles. According to Austria's Statistical Yearbook 2006, the registered cars (including small vans) in the country were 4,156,743 in the year 2005.⁷ 367,992 new cars⁸ and 16,820 second-hand cars were imported during 2005, whereas 37,248 second-hand cars were exported during that same year⁹.

92,188 ELVs were treated in Austria in the year 2003.¹⁰ The official numbers of ELVs treatment reported to the EU-Commission for 2004 and 2005 were 98,819 and 94,520.

Even before the ELV Directive was enacted, Austria had considerable experience in the ELV take back and recovery area, due to an agreement between the Austrian Federal Economic Chamber ("*Wirtschaftskammer Österreich*"), the Ministry for Environment and the Ministry for Economic Affairs in 1992. Since 2002, an ordinance determines the requirements of ELV take back and treatment/recovery.

Interviewees (Ministry and industrial association) reported that they are not aware of any increase of illegal shipment or dumping of cars for disposal since the implementation of the ELV Directive. It is true, however, that with the coming-into-effect of the ELV Ordinance, there is a decline in numbers of ELVs requiring disposal. As the Economic Chamber of Austria reported, an important number of old cars are exported to Germany or the new Member States of the European Union.

Transposition of the Directive

1. Legal situation

Before the ELV Directive was transposed into national law, there was a take back-system for end-of life vehicles based on a voluntary agreement between the Ministry for the Environment, the Ministry for Economic Affairs and the Federal Economic Chamber.

⁵ http://www.wk.or.at/fahrzeuge/main_frame/statistik/statistikjahrbuch/jahrbuch_2006/Seite4.3-4.5%202006.pdf (20 January 2007).

⁶ http://www.wk.or.at/fahrzeuge/main_frame/statistik/statistikjahrbuch/jahrbuch_2006/Seite1.3-1.8%202006.pdf (20 January 2007).

⁷ http://www.wk.or.at/fahrzeuge/main_frame/statistik/statistikjahrbuch/jahrbuch_2006/Seite5.2%202006.pdf (20 January 2007).

⁸ http://www.wk.or.at/fahrzeuge/main_frame/statistik/statistikjahrbuch/jahrbuch_2006/Seite4.13%202006.pdf (20 January 2007).

⁹ http://www.wk.or.at/fahrzeuge/main_frame/statistik/statistikjahrbuch/jahrbuch_2006/Seite5.7%202006.pdf (20 January 2007).

¹⁰ http://www.altauto.at/text/afz_bericht_2003.pdf (20 January 2007).

This agreement became widely obsolete (see below) with the coming-into-force of the new “*Verordnung über die Abfallvermeidung, Sammlung und Behandlung von Altfahrzeugen*”, in short “*Abfallfahrzeugeverordnung*”, hereinafter ELV-Ordinance, which transposed the ELV Directive into national law. Most of the provisions of the ordinance entered into force on 6 November 2002, which is some months after the required implementation deadline of 21 April 2002 as set in the Directive. The core of the ELV system, the free take-back system for cars put on the market from 1 July 2002 should have been installed by this date, for cars put on the market before 1 July 2002 it should be installed by 1 January 2007. The Directive, thus, was not transposed into national law quite within the term required by the Directive. As a consequence, the delay of the legal - i.e. not necessarily the practical - implementation amounted to a few months.

The Austrian ELV-Ordinance covers the cars M1 and N1 as required by the EU Directive, and the definitions of M1 and N1 comply with the definitions of Directive 70/156/EEC¹¹, as required by the ELV Directive. The Austrian Ordinance also covers M1 “combined cars”, which are used for both the transport of passengers and consumer goods.

2. Amendment of Austrian Ordinance after EU Commission’s Complaints

The ordinance (from 2002) was criticised by the European Commission as not being sufficient to transpose the ELV Directive into national law. The Commission’s main criticism was that the Austrian ordinance restricts the producers’ obligation to only take back cars of their own brand and registered in Austria.¹² Upon these complaints the Austrian Government enacted an amendment to the ELV-Ordinance stating that producers or importers have to take back all end-of life-vehicles of their brand. In the event that an end-of life vehicle of a brand that has not been put into circulation in Austria (e.g. an East-German TRABANT) becomes an ELV, the producer or importer with the closest take-back point to the ELV must take the vehicle back (i.e. another car firm).¹³

There have not been any other complaints from the EU Commission since the 2005 amendment.

Implementation of free take back

The take back system became legally mandatory in Austria on 6 November 2002. The legal requirement that the take back system is cost-free is laid down in § 5 No. 2 of the ELV-Ordinance. The costs that the producers have to bear to finance a take-back and treatment system for ELV are to be included in the price for new cars.

No operative problems with the take-back system have been reported. As ELVs contain valuable materials – especially metals, for which good prices can be realised – no major problems with the cost-free take back are to be expected.

An overview of take back points is published on the homepage of the Austrian Ministry for the Environment.¹⁴ The Ministry for the Environment regularly checks to ensure that the number of take back points is numerically sufficient and complies with the requirements of § 5 No. 1 of the ELV-Ordinance. The Economic Chamber views the present number of take back points, which almost equal the number of sale points, as definitely sufficient.

11 Council Directive 70/156/EEC on the approximation of the laws of the Member States relating to the type-approval of motor-vehicles and their trailers.

12 Press release of 19 January 2005, *Environment: Commission pursues legal action against Austria and Germany* and http://portal.wko.at/wk/format_detail_wk?AngID=1&StID=171763&DstID=0.

13 BGBl. II Nr. 168/2005.

14 <http://umwelt.lebensministerium.at/misc/altfahrzeuge/list/?SectionIDOverride=122> (25 January 2007).

Implementation/achievement of recycling targets

In Austria, the recycling targets of the ELV Directive were not achieved by the Voluntary Agreement between Industry and Ministries. In 2002, a study analysed the possibilities of attaining the recovery/reuse rates, especially the “recovery quota” (including energetic recovery) as opposed to the “recycling quota”¹⁵ as laid down in the ELV Directive.

In order to meet the recycling rate target set up by the ELV Directive, the study in 2002 recommended stimulating an increase in tyre and shredder residue recycling. In 2002, the capacity for the recycling of rubber from car tyres has been greatly stepped up with the inauguration of a new recycling plant – “*GVG Gummiverwertungs Gesellschaft mbh*”.¹⁶

Nevertheless, a study commissioned by the Austrian Ministry for the Environment calculated that the recovery of the average ELV in Austria in 2004 only amounted to about 79 % (reuse, recovery and recycling) and fell therefore short of the 85 % reuse-and-recovery objective.¹⁷ This study suggested that the recycling of car tyres could be used to a higher extent (production of rubber granulate) and glass should be recycled at a high standard. Both the recycling of the tyres and glass are, however, assessed as economically less attractive than other ways of treatment (i.e. co-incineration of tyres in cement kilns).¹⁸

In the event that the recycling targets are not met by the economic operators, the legal framework in Austria might be modified in the sense that certain parts of ELVs would be required to be recycled in a certain way; but there is as yet no formal proposal to do this. Besides the experiences and studies concerning ELV treatment practice developed on the basis of the voluntary ELV agreement, there are both information and training events on the ELV issue organised by the Austrian Ministry for the Environment.

Other issues

The Economic Chamber (Upper Austria) reported occasional problems concerning compliance with the lead ban on balance weights (sale and import). Other problems have been reported concerning spare parts for cars. Spare parts, which have been produced in compliance with the transitional exceptions (Annex II No. 2a, 4, 7a, 10, 13a, 13b), can also be used for vehicles that were put into circulation after 1 July 2003. A consultation procedure was organised following concerns in December 2006.

At the beginning of ELV treatment there have also been a few problems connected with Austrian permitting law. Treatment processes have to be permitted according to the Trade, Commerce and Industry Regulation Act and to the Waste Act. These, however, were mainly transitional issues that have been resolved in the meantime.

15 Up to 2006, the recovery and recycling quote should be 80 % whereas the recovery and reuse quote should be 85 %, so a maximum of 5 % thermal recovery was allowed.

16 The plan has a yearly capacity of 30.000 tons of waste tyres. It can produce 15.000 to 18.000 tons of rubber granulate and 3,000 to 6,000 tons rubber flour.

17 <http://www.umweltnet.at/filemanager/download/15136> (25 January 2007)

18 <http://www.umweltnet.at/filemanager/download/15136>, p28 (25 January 2007).

BELGIUM

Introduction to ELVs in Belgium

Almost all foreign makes of car sold elsewhere in Europe are also represented in Belgium. Every year about one million cars and 90,000 commercial vehicles, buses and (motor) coaches are assembled in Belgium. The car industry (assemblers, producers and importers) has a major impact on the economy and employment. Directly and indirectly some 360,000 persons are employed in the sector (10 % of employees). The Belgian fleet comprised on 31 December 2006 3,582,031 private cars, 1,347,253 cars for both private and commercial use, 523,161 vans and 105,065 lorries. Furthermore, 25,000 persons are employed in more than 260 companies acting as suppliers for the motorcar industry. In 2006 131,074 vehicles (N1 and M1 vehicles) were officially scrapped.

The low number relative to the size of the car fleet is partly explained by the fact that Belgium has a significant export market for second-hand vehicles. The major destinations for these exports are West Africa, the Middle East and the former Eastern bloc countries. However, many of these exports are illegal. Many scrapped cars (wrecks) are exported under the guise of second-hand cars. According to a Flemish expert, there is no link between the directive's implementation and illegal dumping and export. These phenomena already existed in Belgium before the ELV Directive.

As the competences regarding the implementation of the Directive within Belgium are divided between the federal and regional authorities, several actors have been made responsible for the three-yearly reporting on the implementation of the ELV-directive: the Flemish OVAM (*Openbare Vlaamse Afvalstoffenmaatschappij*), the Walloon OWD (*Office Wallon des Déchets*) and the Brussels BIM/IBGE (*Brussels Instituut voor Milieubeheer/Institut Bruxellois pour la Gestion de l'Environnement*). To this end these three administrations work closely with FEBELAUTO, a non-profit body established in 1999 by twelve occupational federations from three sectors¹⁹ in order to organise and observe the management of end-of life vehicles for the whole of Belgium. To gather all the data on the collected end-of life vehicles every single recognised treatment facility makes use of EMS-software (*End-of life vehicles Monitoring System*). FEBELAUTO has access to the information of the whole network of recognised treatment facilities and is, thanks to this, able to determine figures on reuse, recovery and recycling.

Transposition of the Directive

For the sake of conciseness, we only discuss the transposition measures taken by the federal and Flemish authorities. In the Flemish Region the directive was transposed by changes to the Flemish waste decree, the VLAREA-rules on waste prevention and waste management (*Vlaams Reglement inzake Afvalvoorkoming en -beheer*), the decree on environmental permits, the rules on environmental permits (VLAREM I and VLAREM II), the decree on economic support policy and the decision regarding support to enterprises for ecological investments and the environmental policy agreement concluded between the Flemish government and the economic operators. Some changes were made and entered into force before 21 April 2002, others only after this date. VLAREA for example, was adapted in order to bring complete conformity with the Directive. This new VLAREA entered into force on 1 June 2004, two years after the deadline of 21 April 2002.

¹⁹ The three sectors are: the sector of the assemblers, producers, importers and end sellers, the treatment and recycling sector and the sector of the suppliers and the raw materials industry.

The old VLAREA, however, already implemented a significant part of the Directive, as it had already introduced the obligation of economic operators to take back end-of life vehicles in 1999. Besides, the Flemish legislation and rules do cover both light commercial vehicles (N1 vehicles) and passenger cars (M1 vehicles), as required by the directive.

The federal government on the other hand did not manage to transpose article 4 (on prevention) and article 8 (on component and material coding standards) on time, as it adopted the decision regarding product norms for vehicles, only on 19 March 2004. However article 5 paragraph 2 regarding the setting up of a system, according to which the presentation of a certificate of destruction is a condition for deregistration of the end-of life vehicle, was transposed on time by the decision on the registration of vehicles of 20 July 2001, but was initially not communicated to the Commission.

Because of these late transpositions and some non-communication, the Commission took enforcement action against Belgium. In 2002 it opened a non-communication case against Belgium. In 2003 the Commission even decided to refer Belgium to Court for its failure to adopt national legislation transposing the Directive. In 2004, however, the Commission closed the infringement procedure because Belgium had adopted and communicated its transposition measures. In 2005 a new enforcement action was set up as a result of a conformity inquiry by the Commission. The Commission sent a letter to Belgium on 16 March 2005 with questions which needed to be clarified by the authorities. The Flemish Region responded to these questions in July 2005 and promised to make and actually made some changes to its legislation. The information sources consulted indicated no further steps by the European Commission.

Implementation of free take back

In the Flemish Region the economic operators (end sellers, middlemen and producers/importers) are obliged to take back end-of life vehicles since 1999. This obligation was laid down in the VLAREA-regulation and the environmental policy agreement concluded in 1999 between the Flemish government and the economic sector. The free take back, however, was only introduced with the entering into force of the new VLAREA on 1 June 2004, whereas the Directive requires that the free take back must apply on vehicles put on the market after 1 July 2002 from 1 July 2002. All other vehicles, however, were already subject to the free take back system since 1 January 2006, one year earlier than required by the directive.

The economic operators do pay for the take back and the transport of end-of life vehicles to the recognised treatment facilities since 1999. They are encouraged by the environmental policy agreement(s) concluded with the Flemish government (and the other regional governments) to provide for a network for collection of end-of life vehicles either via recognised treatment facilities or via points of sale. However, before 2004 owners of end-of life vehicles could only leave their car at the points of sale, if they bought a new vehicle. Since the new environmental policy agreement of 2004 they are not obliged to buy a new car.

The treatment of end-of life vehicles takes place in a national network of recognised treatment facilities, co-ordinated and supported by the clearinghouse body FEBELAUTO. These treatment facilities are inspected by independent inspection bodies. On the basis of the reports made by these inspection bodies, the responsible administrations (OVAM for the Flemish Region) decide about the recognition of these facilities. In 2005 the Flemish Region had 45 recognised treatment facilities (Wallonia 9 and Brussels 2). The Belgian treatment facilities collected 131,074 vehicles in 2006, while only 38,822 in 2002.

In order to increase the traceability of vehicles and improve the collection rate, the federal agency responsible for registration of vehicles (DIV or *Dienst Inschrijving Voertuigen*) started recently a study on the feasibility and opportunity to introduce a new registration system in Belgium. The federal government aims to introduce in 2009 a procedure by which seller and buyer of a vehicle need to identify themselves via their electronic identity card and need to confirm the transaction via an electronic signature. Thereby the chassis number will be registered too. At this moment only the number plates are linked with identity details of individuals. In order to encourage people to deregister their end-of life vehicle and to get a certificate of destruction, the policy makers are considering options to financially reward people for doing this. A possible way of doing this, is to exempt these persons from paying their car tax. The regional waste authorities and FEBELAUTO have been zealous advocates of this new registration system.

A difficulty that has arisen with respect to the free take back and the requirement that producers pay at least a significant part of the costs, is the fact that it is quite difficult to determine these costs. Most producers and importers in Belgium have made agreements with the recognised treatment facilities to organise the collection of end-of life vehicles. So the costs are shared between the 'producers' and the treatment facilities. As this is commercial information, the waste agencies do not know exactly how much the producers pay.

Implementation/achievement of recycling targets

Besides the take back system, the Flemish Region took additional measures to increase the reuse, recovery and recycling of end-of life vehicles. First, the software used by these treatment facilities was upgraded in order to register data on reuse, recovery and recycling more adequately: transition was made from the EDP system (*Electronic Data Processing System*) to the EMS system (*End-of life vehicles Monitoring System*). Second, the code of good practice for treatment facilities was transposed to the rules regarding environmental permits (VLAREM). As a result, this code of good practice is now part of the treatment facilities' environmental permits (as a set of obligatory conditions) which makes its application subject to control by the environmental inspection. Third, FEBELAUTO and the regional authorities took action to bring the legislation and obligations regarding end-of life vehicles to the notice of insurance companies and authorities in order to increase the level of collection, reuse, recycling and other types of recovery.

In 2004 and 2005 the economic operators within Belgium attained a reuse and recovery rate of 81% by an average weight per vehicle and year (EU target is 85% by 2006), while the reuse and recycling rate in 2005 was 80% (EU target is 80% by 2006). So the reuse and recycling target imposed by the Directive was already reached in 2005. Progress has been made over the years: in 2002 the reuse and recycling rate was 76%, while the reuse and recovery rate was 77%. Currently available data do not suggest that significant further progress is being made in terms of recovery, however, there are difficulties in establishing full information on this point, and it has been suggested that final figures may be more favourable.

The figures mentioned come from FEBELAUTO, the Belgian management body. At this moment there is, however, still some discussion about (the method to determine) these figures. More in particular there is some discussion on how to take into account data from post shredder treatment technology.

Other issues

None raised.

CZECH REPUBLIC

Introduction to ELVs in the Czech Republic

The Czech Republic is a country with relatively aged car fleet (in 2005 – average age of a car was 13.57 years²⁰) although during the recent years the amount of new cars sold on the market increased a number of times. Still, the country's market for second-hand cars ranks among the biggest in the EU, with the majority of these cars imported from abroad; the import in 2005 increased by 20 % and was the highest in history (approximately 150,000 cars were imported in relation to 130,000 new cars sold).²¹ The Czech car manufacturer ŠKODA Auto is well established and after it became part of the Volkswagen Group, ŠKODA cars are now frequently sold and well-known across the EU. Car components are manufactured and marketed by ŠKODA Holding.

In 2005, there were 3,958,708 cars/vans registered in the Czech Republic – the size of the car/van fleet grew by 500,000 since the year 2000.²²

The end-of life vehicle agenda is administered by the Ministry of the Environment (ME). Other competent authorities are regional authorities and so-called Municipalities with Extended Competences (MECs). Certain competencies were also delegated to the Ministry of Industry and Trade and Ministry of Health. The ME is a final collection place of the reports from the MECs that were submitted by producers and operators of authorised take-back facilities and operators of authorised treatment facilities, who are responsible for keeping the reports. Producers²³ are required to submit annual reports on meeting the recovery and recycling targets by 31 March of the following year. The system of reporting has been criticized from the side of the obligated authorities for its complexity. Following the “audit” of environmental legislation, the Ministry started to draft a new and separate Decree regulating exclusively end-of life vehicles (a major improvement would be that the report in a standardized format can be submitted in electronic form). While waiting for this Decree to be adopted and to enter into force, the Ministry issued a communication on keeping the reports for 2007.²⁴ The communication has been issued in the beginning of 2007 to regulate the issue for the time being.

Transposition of the Directive

The ELVs Directive was transposed by Act no. 185/2001 Coll. on wastes²⁵. More technical requirements of the Directive on the authorised treatment facilities and reporting of information were transposed by the amendment to Decree no. 383/2001 Coll. of the Ministry for the Environment. Reuse and recovery targets have been transposed in the Mandatory Part of the Waste Management Plan (WMP) of the Czech Republic²⁶ and also in the Waste Act.

Act no. 188/2004 Coll. added to, respectively amended accordingly, Sections 36-37e of the Waste Act and entered into force on 23 April 2004. The amendment to the Decree entered into force on 21 April 2005. The Mandatory Part of the WMP is effective since 1 July 2003.

²⁰ This methodology also counts cars that are registred but may not be used regularly any more.

²¹ Kvítek, J. : *Problémem autogramů není jenom přesná* , in Odpady 1/2006

²² Statistical Yearbook of Transportation, Ministry of Transportation. 2006

²³ Producers are both car manufacturers and accredited importers

²⁴ Communication of the Waste Department of the Ministry of the Environment from 2 January 2007 concerning the reporting standards for 2007

²⁵ Sections 36- 37e

²⁶ Government Regulation No. 197/2003 Coll. on the Waste Management Plan of the Czech Republic.

The Czech legislation distinguishes between “end-of life vehicle” in general (for all vehicle types) and “specific end-of life vehicle”, for which more stringent measures are applicable. The definition of “specific end-of life vehicle” reflects the coverage of the ELV Directive, i.e. it covers both N1 and M1 vehicles and three wheel motor vehicles excluding motor tricycles as defined by the relevant Directives. According to the Seventh Annual Survey on the implementation and enforcement of Community environmental law, no infringement proceedings have been brought against the Czech Republic with regard to the ELV Directive.

Implementation of free take back

Article 5(4) of the ELV Directive was transposed by the amendment to the Waste Act. Free take back for final users is only applicable since 1 January 2007 for all cars/vans. Also, since 1 January 2007, producers (manufacturers and authorised representatives) are obliged to take back all cars of own brand if delivered to the authorised take-back facility by the last owner (up to this date, this obligation only applied to cars manufactured after 1 July 2002).

Authorised take-back facilities are independent facilities that have been authorised by the competent authorities (regional authority) to be run in order to take back all end-of life vehicles and specific end-of life vehicles free of charge (as applicable of 1 January 2007), issue certificates on the delivery, deliver the end-of life vehicles to the treatment facilities, store them in accordance with legal obligations, keep records of end-of life vehicles received and delivered to the treatment facilities and send them to the competent authorities and participate in the information system of the “flow” of specific end-of life vehicles as stipulated by the relevant legislation. Producers that do not offer free take back in their own facilities, contract these facilities to provide for free take back of end-of life vehicles of their brand (this is a common practice). In other cases (non-existence of a contract with a producer), the operators are allowed to charge fees for the take-back (inter alia for old car brands). These facilities are not obliged to carry out treatment themselves. In such cases, their operators are legally bound to deliver the end-of life vehicles collected to the authorised treatment facilities. The list of authorised take back and treatment facilities is publicly available on the internet and at the regional authorities.

All importers (including individual importers) are obliged to pay a fee of 5,000 CZK (about €180) for importation of a second-hand car, which does not meet the technical standards required by the amendments to Directive 70/220/EEC.²⁷ The fee is transferred to the State Environmental Fund and allocated for the collection, treatment, reuse and disposal of end-of life vehicles.

A person applying for withdrawal of a car from the car register in accordance with the special Act²⁸ is required to submit, apart from other documents, a certificate of the delivery of the end-of life vehicle to the authorised take back facility (*Potvrzení o převzetí autovraku do zařízení na sběr autovraků*). However, reasonable doubts exist about the certificate being easily counterfeited or the obligation otherwise evaded.

²⁷ Section 37e of the Act no. 185/2001 Coll.

²⁸ Act no. 56/2001 Coll. on the conditions of road traffic, as amended (*zákon o podmínkách provozu na pozemních komunikacích*)

Implementation/achievement of recycling targets

Producers prepare an annual report on meeting the recycling targets which is specified by Decree 383/2001 and send it to the Ministry of the Environment. According to the responsible ministerial officials, these targets have not yet been monitored separately (started from the second half of 2006) therefore no separate data is available, as this has only been put into effect after Decision no. 2005/293/EC laid down this obligation.²⁹

At present, end-of life vehicles in the Czech Republic are from 18 – 24 years of age. It concerns several generations of cars that differ also in their material structure, which is important with regard to the achievement of recycling targets. The differences are quantitative (amount of irons, plastics, rubber and other parts) and also qualitative (use of “modern metals” such as platinum, rhodium etc., different plastics and hazardous materials). This makes benchmarking with the EU data (where end-of life vehicles are much younger) complicated and demands different separation and recycling technologies.

In general, transformation of a common “car landfill” operation (as operated before) to a treatment facility demanded costly investments, which only a part of the operators was willing to bear.³⁰

Other issues

To sum up, problematic issues in relation to end-of life vehicles are, apart from rather complicated legislation and massive importation of second-hand cars, cost-demanding investment into the treatment facilities, system of fees, a lack of capacity to process certain material parts (glass, plastics and rubber) and the existence of so-called “car cemeteries”.³¹

Car cemeteries are illegally operated sites where people leave their unused cars (end-of life vehicles in fact) and there is no consequent treatment process. These car depots are a long-term phenomenon - they used to serve as a “storage” of spare car components in the past and end-of life vehicles dumping sites. Instruments, which were adopted to prevent this from happening, are:

1. Certificate of the delivery of the end-of life vehicle to the authorised take-back facility (*Potvrzení o převzetí autovraku do zařízení na sběr autovraků*) which is a mandatory document to be submitted together with the application for a withdrawal of a car from the car register (as mentioned above). This requirement is imposed by law and is now fully effective. Although occurrence of forgeries is presumed, there are no statistics of these. Statistics of the development trend do not exist either.

²⁹ 2005/293/EC: 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

³⁰ At present, there are more than 400 authorised take-back facilities – they either have capacities to treat the end-of life vehicles or contract with an authorised treatment facility. The Czech Republic has 14 regions and its territory has 78,866 km² – car owners are concentrated in Prague where the distance is short. On the other hand, from some remote areas, it might be even 25 km or more. However, there is no fixed distance criterion in the Czech legislation. Authorised take-back facilities are to be evenly spread with regard to regions, not municipalities.

³¹ Melčák, M.: *Autovraky – včera, dnes a zítra*, in *Odpadové fórum* 10/2006

2. So-called “car deposit” (temporary withdrawal of a car from a register), which in practice means that the owner returns back his licence plates and is not obliged to pay the insurance, is now limited to 12 months (in exceptional situations may be extended by half a year) after which the registration has to be renewed or the car permanently withdrawn (in the latter case, the owner has to submit the certificate as mentioned in the first bullet)³².
3. Regarding sanctions, the Czech Environmental Inspectorate is competent in the field.

The Centre for Waste Management of the T.G. Masaryk Water Research Institute has been executing a project, which monitors amounts of hazardous substances in samples of treated parts obtained from two treatment facilities. The project will be concluded by the end of 2011. However, the period is not long enough to acquire samples from the end-of life vehicles manufactured after 1 July 2003.

³² Section 13 of the Act no. 56/2001 Coll. on the conditions of road traffic, as amended (*zákon o podmínkách provozu na pozemních komunikacích*) – the amended Section 13 is effective since 1 July 2006

GERMANY

Introduction to ELVs in Germany

Germany hosts a variety of car producers, and a high proportion of buyers are loyal to the national brands. Consequently, many of the cars sold and used in Germany have also been manufactured in the country. The German Association of the Automotive Industry's (VDA) statistics show that 5,350,187 cars and 407,523 lorries were produced in 2005.³³ 46 millions cars were registered in Germany in 2005.³⁴

Of the 3.2 million cars, which were de-registered from German registration in 2005, about 2.4 million cars are supposed to have been exported. There is no clue as to whether they were kept in circulation as "used cars" or scrapped abroad.³⁵ A great deal of informal evidence suggests that a significant proportion is exported to the new Member States and other countries still further east. New statistical information about ELV recovery indicates that 540,000 ELVs were treated in 2004, which amounts to less than 20 % of the cars that were de-registered from the German market.

The 2005 German report on the implementation of the ELV Directive³⁶ according to Art. 9(1) of Directive 2000/53/EC states the export of second-hand cars as the main reason for this decrease in numbers; the factual basis for this judgement, though, is not provided. It is not clear if the reduction in the number of cars being scrapped in Germany is associated with the new strength of the ELV regulations, or with other factors such as changes in the economic context of other countries or regions (e.g. Eastern Europe) which could have led to an increased demand for second-hand cars out of Germany.

One estimation for illegal car dumping was delivered by a Bavarian Environmental NGO, which in 2001 estimated the number of cars dumped in the countryside to be between 50,000 and 100,000 in Germany per year.³⁷ This estimate was delivered before the ELV Directive came into force. The German Ministry for the Environment judges that the implementation of the ELV Directive in Germany would lead to an end of the ELV dumping in the countryside.³⁸ There are no current statistics about illegal dumping of cars. However, because of the high prices of steel, even before 2007, owners of ELVs could hand in their cars to take back points/treatment facilities on a cost-free basis or even earn a small profit. The motivation for illegal dumping has therefore been limited.³⁹

Regardless, the problem of illegal (i.e. non certified/permitted) ELV collection and recovery was mentioned by ARGE Altauto, a forum ('working group') dealing with ELV issues. ELV recovery, which is not in line with the requirements of the ELV Directive, is motivated by the recovery of highly priced materials as metals, etc. In these cases end-of life vehicles are bought by non-certified "recoverers" and the valuable materials are then sold on the market (e.g. Poland, Russia, Ukraine, Serbia, etc.) without respecting the technical treatment requirements of the Directive.

³³ <http://www.vda.de/de/aktuell/statistik/jahreszahlen/automobilproduktion/index.html> (24 January 2007).

³⁴ http://www.bmu.de/fb_abf?fb=2985 (24 January 2007).

³⁵ http://www.bmu.de/fb_abf?fb=2985 (24 January 2007), same statement by German Association of the Automotive Industry (VDA).

³⁶ See http://cdr.eionet.europa.eu/Converters/convertDocument?file=de/ev/envq_mnia/questionnaire.xml&conv=rem_9 footnote 3 (24 January 2007).

³⁷ <http://www.bund-naturschutz.de/oekotipps/muellentsorgung/altautos.html> (24 January 2007).

³⁸ <http://www.bmu.de/abfallwirtschaft/doc/3730.php> (24 January 2007).

³⁹ Information also given by VDA.

Transposition of the Directive

1. *Legal history*

The Directive was transposed into German national law in 2002 by the “Act on the disposal of end-of life vehicles / End-of life Vehicles Act”⁴⁰. The core piece of this act was an amendment to the already existing End-of life-vehicle-Ordinance (hereinafter ELV-Ordinance). This ordinance had come into effect in 1998 and already laid down certain requirements for the treatment/recovery of end-of life vehicles including recovery and recycling targets, but had to be adapted to the provisions of the EU Directive.

The ordinance amendment (version adapted to the Directive) came into force on 1 July 2002 while the Directive required the national transposition by 21 April 2002 for most of the stipulations. Therefore the delay of formal transposition was – if of any importance – only a matter of 2 and one half months.

2. *European Commission demands amendments*

The 2002 Ordinance transposing the ELV Directive did not satisfy the European Commission. In the following, the various points that were referred to by the Commission as not being in accordance with the ELV Directive are listed and the steps by Germany to overcome these problems described⁴¹:

- **Scope:** The 2002 ordinance covered M1 and N1 vehicles but contrary to the ELV Directive limited the scope of the ordinance for vehicles designed for special use to vehicles with a maximum weight of 3.5 tonnes (see § 1 para. 3 ELV Ordinance 2002). Upon complaints by the European Commission, the German Government extended the scope of the Directive to all M1 vehicles making use of the clause in Art. 3 No. 4 of the ELV Directive, which says “Special purpose vehicles as defined in the second indent of Art. 4(1)(a) of Directive 70/156/EEC shall be excluded from the provision of Article 7 of this Directive”.
- **Exceptions from cost-free take back system:** The German 2002 ordinance made a free take back system obligatory only for cars registered according to the German registering procedure. In addition, free take back could be denied if the German car documents (“*Fahrzeugbrief*”) are not handed over. The EU Commission did not regard the restriction to cars run in accordance with German national procedures compatible with EU law and principles. Upon complaints by the European Commission, the amendment to the ELV Ordinance extended the obligation to take back ELVs on a cost-free basis to cars registered in the European Union. The free take back of an ELV can be denied if the car papers (German document or EU Document) have not been handed in.⁴²

⁴⁰ BGBl. I, 2002, p. 2199.

⁴¹ The Amendment of the German ELV-Ordinance, which remedied the shortcomings referred to by the EU-Commission, was enacted in 2006 (see BGBl I, 2006, p. 326).

⁴² A further amendment concerns cars produced in a multi-stage process, see new § 3 no. 7.

Other critical points mentioned by the EU Commission concern the ban of certain substances for the car production⁴³, the provision of information regarding the decomposition of ELVs⁴⁴ and the definition of 'economic operators'⁴⁵.

With the amendments enacted in 2006 the legal transposition of the ELV Directive into German national law has been accomplished.

Implementation of free take back

The German ELV-Ordinance foresees a take-back obligation (§3 para.1) in line with the requirements of the ELV Directive. Car producers have to take back all the vehicles of their brand in an authorised permitted collection facility or an authorised dismantling facility designated by the car producer. At the collection or dismantling facility, the owner is given a certificate of destruction.

The take back system for end-of life cars is explicitly required to be cost free. The German ordinance also requires the installation of a "sufficiently comprehensive network of authorised collection facilities or authorised dismantling facilities". No practical problems with the cost-free take-back system have been reported⁴⁶. Currently, the high steel prices rather favour the cost-free take back. The take-back system works effectively. Dismantling facilities even report the problem of the decreasing number of ELVs being presented for dismantling, which makes it hard for them to fill their capacities. In effect the car manufacturers have to bear the costs of the take-back system. The recovery of ELVs is subject to market mechanisms. High steel prices thus make the recovery of ELVs at least cost-neutral.

There is a tightly knit web of take back and dismantling points in Germany. 1116 treatment facilities for ELV were registered at the Joint Point ELV (*Gemeinsame Stelle Altfahrzeuge*).⁴⁷ The treatment facilities are certified by external experts.⁴⁸

ARGE Altauto, however, referred to occasional enforcement problems of the ELV-Ordinance by the local authorities. For example the submission of a certificate of deconstruction in line with the ELV ordinance as a precondition of car deregistration is not always respected.

Implementation/achievement of recycling targets

Based on data from the Federal Statistical Office Germany, the German Federal Environmental Agency has calculated the reuse and recycling rate for 2004 at 77.2 % and the reuse and recovery rate at 79.7 %. Therefore, the recycling and recovery targets (at least 80 % reuse and recycling, 85 % reuse and recovery as from 1 January 2006) might not be achieved. ARGE Altauto estimates the *de facto* recycling rate to be lower (around 70 % as an optimistic number). In particular, the reuse/recycling of glass and synthetic materials has been criticised.

⁴³ These aspects will not be further explored in this briefing, see for the amendments: § 1 para. 3, § 8 para. 2.

⁴⁴ Now to be provided generally and not only on request.

⁴⁵ For the definition of economic operators the group of "distributors" had to be added in § 2 no. 22.

⁴⁶ Unanimous position of VDA, ARGE Altauto and the Federal Environmental Agency. VDA, however, rejects the free-take back system as too burdensome for the car manufacturing industry. Age and state of the ELV are decisive for the costs and profits of the recovery process and cannot be influenced by the car manufacturing industry.

⁴⁷ http://cdr.eionet.europa.eu/Converters/convertDocument?file=de/eu/elv/envq_mnia/questionnaire.xml&conv=rem_9 (25 January 2007).

⁴⁸ In accordance with the ELV-Ordinance of 1998, an ELV- take-back system had already been in place in Germany when the ELV-Directive was passed on the European level. However, the take-back system was not generally cost-free, but a price had to be negotiated between the treatment facility and the owner of the ELV. The take-back was only cost-free for cars produced from 1998 onward.

The material is often stored at the site of car treatment facilities due to a lack of further uses identified for it. The lack of enforcement of the recycling standards by many authorities was also criticised by ARGE Altauto. The German Federal Environmental Agency refers to the shredder residues as the fraction, which has so far been largely landfilled. The statistics for 2006 will be available in 2008. VDA suggests that the recycling targets could still be met.

In order to foster compliance with the prescribed recycling targets of the ELV-Ordinance, Germany has enacted an amendment to the German Waste Disposal and Landfill Ordinances (*Abfallablagungs- und Deponieverordnung*), banning waste featuring a calorific value of over 6,000MJ/Mg from landfills, also for those landfills for ELV-specific waste streams. There are also guidelines by technical associations (e.g. the association of German engineers, VDI) aiming at fostering the reuse of ELV parts. In the future, the focus of recycling and recovery research will lie on the light shredder fraction, which may no longer be put to landfills. A mechanical recovery of this fraction is carried out for example in a treatment plant in Saxony where it is separated into different recoverable streams. In the future, the automobile industry will focus on post-shredder technology to recover non-metallic fractions.

Other issues

Principally the technical treatment requirements of the ELV are complied with in the treatment facilities. Of course, there are problems with illegal collectors of ELVs, who only wish to recover the valuable materials and do not comply with the high standard of ELV treatment.

The car manufacturing and spare part industry is unhappy with bans of certain materials, which also apply for cars where these materials have been used and where the material may no more be used even for repair purposes.

As for component and material coding standards, in Germany there is no general coding guideline, so coding is not very developed.

HUNGARY

Introduction to ELVs in Hungary

Hungary has not been a car manufacturer country in the last decades (it was specialized in buses and trucks within the socialist bloc), it used to import the main part of its car/van fleet. However from the beginning of the 1990s a couple of international car and car-component manufacturers have started to operate in the country.

At present the major car manufacturer in Hungary is Suzuki (22,000-25,000 cars per year for the domestic market – roughly a market share of 10 %). Audis are also produced in Hungary, but mainly for export. The major component manufacturers are: VW/Audi, GM/Opel, Ford, Denso etc.

The car fleet (M1) in 2005 accounted for 2,900,000 vehicles, the van fleet (N1) approximately 230,000, both are about 20 % higher than the 2000 data.

In the recent years approximately 220,000 new cars have been registered per year plus 3,000-30,000 second-hand cars. The second-hand cars are coming mainly from Western-Europe (the most popular source is probably Germany). The high volatility of the second-hand import data is due to the frequent changes of the regulation of imports in the last years; second-hand imports are currently decreasing as regulation is getting stricter. There is no reliable data on second-hand export quantities (from a couple of thousands to a couple of ten thousands), but the main destinations are Ukraine, Russia and Serbia. Until very recently Romania was also one of the most important destinations but parallel to EU integration those exports seem to decline. As the car fleet on average is so old (11 years on average) the second hand car import helps to make it a bit younger (not much as they are not very significant in total number). Of course if all the second hand import would be replaced by new cars it would be even better, but this is not likely to happen in the near future.

In 2005 about 140,000-150,000 cars and 10,000-12,000 vans have been scrapped (it is rather an estimation than official data – see details later).

Illegal exports from Hungary are not unknown (for instance in the case of stolen cars for use or for car-parts) but this issue does not seem to be linked with the implementation of the Directive.

The car “producers” (although in the Hungarian context this means importers in most cases) are responsible for the reporting requirements set out in Article 9(2). The authorities check the reuse/recovery/recycling targets (by the ELV-processing network, the contractors of the car producers) – however, it is not unproblematic (see Section 6.4).

Transposition of the Directive

The implementation of the Directive happened 1 January 2005, by Order number 267/2004. Due to the challenge of the law harmonization by that time, it was rather later than Hungary’s EU entry on 1 May 2004 – the required date of transposition. Although Order 267/2004 covers the whole Directive in its generality and there has been much harmonisation work done with other laws, the enforcement of these rules is still unclear at some points (see free take back and processing ELVs later).

The Hungarian legislation covers both M1 and N1 categories and all provisions required by the Directive.

There is no information on any enforcement action by the Commission against Hungary.

Implementation of free take back

This aspect of legislation is also implemented (267/2004) and in force since 1 January 2005 (for pre-July 2002 cars/vans) and 1 January 2007 for all cars/vans. Thus the first deadline was missed reflecting Hungary's relatively recent accession, but the second was met on time. Hungarian law prescribes that the ELV processing facilities must be able to be reached within 50 km on public road from any points of the country.

Take back is now theoretically free for final users (as stated in 267/2004) although there is still an older parallel rule that lets ELV processing facilities charge a fee of about €16 for certifying the take back (which is not always applied in practice) and there is an official fee of about €6 for the final withdrawal from traffic of the vehicle. An extra – but potentially high– cost can be the transport to the processing facility, if the ELV can not do it under its own power.

Making producers pay has been a very tough and unclear task so far, which is closely connected to the main characteristics of Hungarian ELV issue. Because of the high demand for motorization and cars in Hungary and the still not very high living standards of the population, the car and van fleet is still very old. The average age of these vehicles is approximately 11 years (25 % of the car fleet is older than 16 years), the average age of withdrawal from traffic is approximately 21.5 years; these numbers do not seem likely to decrease rapidly in the near future. Besides the significant market for old cars there is a prospering market for car parts as well (the high quantity of old cars on the roads set a high and stable demand for parts of the same models – and of course this demand is not satisfied by purchasing new parts from producers). *The main problem is that a central point of the Directive (free take back of ELVs as they mostly have a negative market value) is not really realistic as a) a 20-year-old car is usually far not an ELV yet and b) an ELV still has a positive market value in most cases, as at least a couple of euros can be made out of it by selling its parts.* It should be emphasised that the number of older cars – especially for socialist models – have a very modest model range, so the old car parts are compatible with the surviving cars in most cases.

Because of this issue car “producers” argue that taking over and processing ELVs is not a problem they should pay for, as it happens automatically on a market basis (which is not far from reality in most cases – if we disregard environmental points of view at processing). As the law requires them to ensure the free take back, they contract ELV processing facilities with the required environmental permissions. Most of the “producers” contract with coordinating organizations (more “producers” with the same organizations managing an ELV processing network), however other producers have set up their own contractor network. There was a plan to create one coordinator organization and a shared ELV-processing network for all “producers” to decrease the total costs, but this failed because of the resistance of producers – they refused to pay the costs. Although now all the producers are in contract with ELV processing facilities or coordinators, it is unclear what part of the total costs they pay. Thus a network or networks do exist, but are avoided in many cases because it is more economic to dispose by other (informal or illegal) means as described below.

In the existing system of ELV processing facilities, car owners could leave (or in most cases – sell) their vehicles there; the facilities sold what they could as car parts and secondary raw material and the rest was deposited. Now there is a network for all “producers” with a guarantee of free (or almost free – see above) take back (in this sense not very different from the existing system) but at least operating with the required environmental permissions. The main problem is still open, whether the free take back at the facilities in the new network is incentive enough that most of the ELVs end up there (see next point).

Implementation/achievement of recycling targets

As it was stated before, the reuse/recovery/recycling of ELVs has happened (or not happened) until recently mainly on a market basis. In addition there is now the administrative requirement of reuse and recovery targets of the Directive.

It is very difficult to give exact numbers for reuse and recovery for 2000 as there was not an exact database for that and the destination of most of the ELVs was unclear (this is still the case), but the estimation of about 70-75 % for the processing facilities (reuse and mainly material recovery) is probably not far from reality.

The ELV processing facilities (the ones in contract with “producers”) seem to have reached the 85% reuse and recovery target for 2005 and 2006. They mainly specialize on material recovery (scrap-metal etc.); reuse happens in smaller quantities while recovery (e.g. incineration with heat recovery) is not significant.

This positive picture is clouded by the fact that far from all ELVs end up in these processing facilities (with the environmental permissions). As stated above, about 140,000-150,000 cars are scrapped per year (or at least disappear from the roads), but in 2006 only 44,000 have gone to the appropriate processing facilities. It is not clear what happens with the rest, given that the Directive and also the national law 267/2004 sets the requirement of a take back certification from a “qualified” processing facility for the final withdrawal from traffic, but this is clearly not the case for many cars. Some of the latter are dumped, some deregistered and garaged, some processed through unregistered dismantlers, who use them to provide second-hand car parts for the domestic and export market.

As was pointed out above, for owners free take back is not the most financially attractive way for getting rid of their ELVs. They can probably sell it whole or at least some parts (engine, body parts etc.) for a couple of tens or hundreds of euros (in the latter case, the rest of the car will probably not be taken by the official processors for free – see also the Directive). In these cases there is no data on reuse and recycling rates, and the fulfilment of environmental standards is at least questionable. The question – how car owners choose these latter options, if they need the processing certification for final withdrawal from traffic – is still open.

The problem is very complex, and it can be partly led back to the back doors of the legislation and registration system of cars. In Hungary besides final withdrawal from traffic there is also “temporary” (up to 6 months) and since very recently also “interim” (up to 10 years) withdrawal. These arrangements can usually be applied when a vehicle is not used for a period and the owner does not want to pay the maintenance costs (insurance, taxes etc.) for this time (for pensioners not using the car at winter etc.). Now many ELV owners choose these options (after his ELV is not taken back for free, as he has already sold the engine for instance) – of course in these cases no processor certification is needed. Probably because of the interim withdrawal possibilities officially only 44,000 cars have been finally withdrawn in 2006 (99 % of them already ended up in registered and qualified processing facilities at least), compared to the 74,000 in 2005 (while the estimated number of scrapped cars is still 140,000-150,000 per year). Another not very uncommon method is stating that the ELV has been stolen so then no processing certificate can be required by authorities, and the car can be disposed of informally as indicated above.

A key problem is still that in most cases ELVs (in whole or in parts) have positive market value, so free take back is not a real incentive for owners to take them to the right place. Official networks cannot offer a competitive price as they have made huge investments to ensure environmentally sound disposal but unregistered dismantlers have not had to do this, and trading car parts is also not that big a business for official dismantlers (they do rather recycling) if they follow the environmental rules (on storing parts etc.).

Other issues

Compared to the main problems stressed before, other issues seem to be less problematic (hazardous substances, treatment, coding are regulated – of course the question is still whether the ELV will be processed properly).

There is no information on any sorts of agreement between authorities and economic operators concerning Article 10(3) of the Directive.

IRELAND

Introduction to ELVs in Ireland

The vehicle fleet in Ireland has increased steadily over recent years, with a total of 1,682,221 vehicles, including 1,319,250 private cars, under current licence in 2000. The total vehicle fleet increased by almost 60 % between 1990 and 2000, with a 66 % increase in private cars in the same period⁴⁹. Table 1 shows the rate of licensing of new and second hand private cars and goods vehicles demonstrating the rate of flux in the Irish market. According to work published in 2001, by the Irish Environmental Protection Agency (EPA), there are no national statistics accounting for abandoned vehicles in the country. However, an estimate is presented based on UK percentages of vehicle abandonment. Applying the 23 % ELV abandonment rate, reported in the UK, to Ireland it can be estimated that up to 30,000 vehicles are abandoned in Ireland each year. It is, however, not possible to verify this⁴⁹.

Table 1 - Motor Vehicles Licensed for the First Time⁵⁰

Type of Vehicle	1999	2000	2001	2002	2003	2004	2005	2006
New Vehicles								
Private cars	170,322	225,269	160,908	150,485	142,992	149,635	166,270	173,273
Goods vehicles	30,066	33,606	30,622	28,412	30,532	31,165	38,396	43,619
Second-hand vehicles								
Private cars	36,878	24,003	15,237	13,352	13,472	21,391	38,207	54,244
Goods vehicles	9,285	6,983	5,958	5,285	6,294	7,948	11,590	15,228

It has been equally difficult to identify the actual numbers of end-of life vehicles arising in Ireland. Up until the implementation of the ELV Directive there was no system for de-registration in Ireland. Therefore, the levels of ELV production have been estimated in a range of ways⁵¹. ‘Direct’ methods make use of directly-produced estimates of the numbers of ELVs from relevant bodies; ‘indirect’ methods seek to estimate the number by calculations based on other statistics. Tables 2 and 3 present a summary of the estimated numbers and weight of ELVs based on the different estimation techniques for 1997 to 2000.

⁴⁹ Environmental Protection Agency, Ireland, Ms Caitriona Collins, Mr Andrew Fanning, Dr Matthew Crowe and Mr Brian Meaney, End-of life Vehicles in Ireland - A Sectoral Report, 2002

⁵⁰ Central Statistics Office Ireland, <http://www.cso.ie/statistics/motvehlicfirsttime.htm>

⁵¹ Results from the Government scrappage scheme provide the only definite information in relation to end-of life vehicle arisings in Ireland. The total amount of scrap metal recovered in 1998 was reported to be 187,484 tonnes. This was predominantly steel and iron scrap with other metals accounting for 17,484 tonnes. An estimated 30,000 tonnes of ferrous scrap arose from end-of life vehicles. Based on 0.6 tonnes ferrous metal per end-of life vehicle in Ireland, this accounts for some 50,000 end-of life vehicles. Other methods used to estimate levels included surveying the two operators of shredding facilities and one metal recycling company. Additionally records were used from Irish Ispat was the only company involved in the recycling of ferrous metals in Ireland until its closure in June 2001. It processed fragmented scrap from the shredding facilities located in the Republic of Ireland. Since the closure of Irish Ispat, all scrap processed by the shredding facilities in the Republic of Ireland is exported for recovery abroad.

Based on the results presented it is considered that the most reliable estimates are made by the recovery operators method (Method 1), the projections of the vehicle stock method (Method 3) and the vehicle inactivity method (Method 6). Now that a system for certificates of destruction is in place, in future it should be possible to provide more accurate data on end-of life vehicle arisings in Ireland.

Table 2 - Summary of results 1997-2000 – number of end-of life vehicles ⁴⁹

Year	Direct Methods (Number of end of life vehicles)		Indirect Methods (Number of end of life vehicles)			
	Recovery Operators – Shredding Facilities	Recyclers – Irish Ispat	Projections of the Vehicle Stock – ETC/W Adjusted Methodology	Historical Numbers of End of Life Vehicles	Lifetime Parameters	Vehicle Inactivity (Non-renewal of tax)
	Method 1	Method 2	Method 3	Method 4	Method 5	Method 6
1997	-	-	99,932	-	29,335	116,887
1998	-	-	128,960	-	32,622	119,300
1999	105,855	77,888	152,727	-	28,053	162,777
2000	176,632	100,343	217,203	-	18,529	197,987

Table 3 - Summary of results 1997-2000 – weight of end-of life vehicles (tonnes) ⁴⁹

Year	Direct Methods (Tonnes)		Indirect Methods (Tonnes)			
	Recovery Operators – Shredding Facilities	Recyclers – Irish Ispat	Projections of the Vehicle Stock – ETC/W Adjusted Methodology	Historical Numbers of End of Life Vehicles	Lifetime Parameters	Vehicle Inactivity Method (Non-renewal of tax)
	Method 1	Method 2	Method 3	Method 4	Method 5	Method 6
1997	-	-	59,959	-	17,610	70,132
1998	-	-	77,376	-	19,573	71,580
1999	63,513	46,733	91,636	-	16,832	97,666
2000	105,979	60,206	130,322	-	11,117	118,792

According to one source Ireland has developed a very strong automotive components industry, which currently exports close to US\$1 billion worth of automotive components every year to customers in Europe, the US and the Far East. The products range from turbochargers by Allied Signal and mirror glass by Donnelly Mirrors to cable harnesses by Kromberg & Schubert. There are 24 U.S. automotive components manufacturers based in Ireland that are manufacturing products to European market standards.

By looking at recent statistics on passenger car registrations it is possible to identify the key players in the Irish market. These are Toyota, Ford, Volkswagen, Nissan, Opel and Renault, each with over 5% of new car sales.

It should also be noted that the rate of used car imports is rising. In 2005 the Society for Irish Motor Industry reported a rate of import of almost 20,000 per year. When comparing date from the first 6 months of 2004 to those in 2003, a 45 % increase in the level of imports was noted⁵².

⁵² The Society of the Irish Motor Industry, Pre Budget Submission 2005, http://www.unison.ie/features/budget2005/SIMI_PreBudget_Submission_2005.pdf

Transposition of the Directive

In Ireland the ELV Directive has been transposed through the Waste Management (End-of life Vehicles) Regulations 2006⁵³; these came into force on 8 June 2006. The Regulations place obligations on producers - vehicle manufacturers and professional importers - to establish national collection systems for the recovery and treatment of end-of life vehicles and require treatment facilities to meet specific environmental standards. The Regulations cover both M1 and N1 vehicles, both are included within the definition of a 'specified vehicle'.

Under the system local authorities are charged with ensuring effective implementation including the permitting of treatment facilities, approval of national collection plans for their area, receipt of reporting data, etc. Producers have to register with local authorities identifying the level of ELVs they anticipate being responsible for and the authorised treatment facilities (ATFs) they plan to make use of in that area. The producer is charged with primary reporting responsibilities, each year they must submit an annual report to the local authority on the treatment of ELVs, including steps taken to encourage recycling and reuse e.g. vehicle design⁵⁴. The first reporting deadline is 31 January 2008, and every 31 January thereafter. Authorised treatment facilities must also hold some records i.e. details of the ELVs processed.

Authorised treatment facilities must operate under a waste license, or as appropriate, a waste permit and meet the minimum technical requirements for the –

- storage (including temporary storage) of end-of life vehicles prior to their being the subject of appropriate treatment and recovery,
- appropriate treatment and recovery of end-of life vehicles,
- storage of components containing fluids, recoverable components and spare parts.

The Regulations also impose obligations upon producers to ensure that the materials and components of specified vehicles do not contain lead, mercury, cadmium or hexavalent chromium other than in specified cases. Producers must compile and maintain appropriate documentation, for a period of seven years, to verify that the materials and components of vehicles are in compliance with the provisions of the Regulations.

In October 2004 the European Court of Justice condemned Ireland for failing to transpose the ELV Directive into national law (Case C-460/03)⁵⁵. Following another formal notice from the Commission in 2005, requesting Ireland to comply with the case ruling and implement the Directive, the case was dropped in July 2006. This followed the transmission of Ireland's Waste Management Regulations 2006 to the Commission⁵⁶.

⁵³ S.I. NO. 282 of 2006, Waste Management (End-of Life Vehicles) Regulations 2006, Published by the Stationery Office, Dublin, [http://www.environ.ie/DOEI/DOEIPol.nsf/0/c8f71c4e05251d8280256f0f003bc802/\\$FILE/ELV%20Regs%202006%20\(S.I.%20No.%20282%20of%202006\).pdf](http://www.environ.ie/DOEI/DOEIPol.nsf/0/c8f71c4e05251d8280256f0f003bc802/$FILE/ELV%20Regs%202006%20(S.I.%20No.%20282%20of%202006).pdf)

⁵⁴ The reporting template for annual reports from producers can be found at [http://www.environ.ie/DOEI/DOEIPol.nsf/0/c8f71c4e05251d8280256f0f003bc802/\\$FILE/Annual%20Report%20Template.pdf](http://www.environ.ie/DOEI/DOEIPol.nsf/0/c8f71c4e05251d8280256f0f003bc802/$FILE/Annual%20Report%20Template.pdf)

⁵⁵ European Commission, Commission Staff Working Document Annex to the 23rd Annual Report from the Commission on Monitoring the Application of Community Law (2005) {Com(2006) 416 Final} Situation in the Different Sectors, Sec(2006) 999, 24.7.2006, http://ec.europa.eu/community_law/eulaw/pdf/XXIII_rapport_annuel/comm_pdf_sec_2006_0999_1_en_documentdetravail.pdf

⁵⁶ Commission Press Release, Commission seeks further action to protect wild salmon, Brussels, 3 July 2006, IP/06/906, <http://europa.eu/rapid/pressReleasesAction.do?reference=IP/06/906&format=PDF&aged=1&language=EN&guiLanguage=en>.

Implementation of free take back

From 1 January 2007 owners of intact end-of life cars and vans can deposit them free of charge at authorised treatment facilities. Under the 2006 Regulations each producer is required to develop a national collection system consisting of at least one authorised treatment facility in every city and county council area providing free take-back for vehicles of that producer's brand or for which that producer has responsibility. Producers are required to establish formal relationships with authorised treatment facilities, but any agreement must not last longer than 3 years. Producers must send a formal notice to treatment facilities stating the nature of the engagement, and this must be displayed for public information. The producer is obliged to develop a network of treatment facilities that is 'reasonably' accessible to all and that can meet the demand associated with that producer's ELVs

Producers are required to have additional authorised treatment facilities in those counties and cities with a larger population base (i.e. one additional facility for each additional 150,000 persons in the relevant county or city). Producers must register with each local authority – the application form for this can be found online⁵⁷ and specifies details of vehicles placed on the market and appropriate treatment locations.

The Irish Government had initially hoped to develop a collective scheme for take back. This was to be run by the relevant economic operators: the producers i.e. those who import vehicles into the State and the vehicle dismantling / metal recycling / shredding sectors; mirroring efforts in the packaging waste field and building on Ireland's previously successful Producer Responsibility Initiatives (PRIs). It was, however, not possible to achieve the necessary consensus between stakeholders in order to implement this approach. The self-compliance approach was, therefore, pursued; this is similar to other EU countries, including Germany and the UK⁵⁸.

In Ireland, while local authorities are responsible for administering and enforcing the scheme, it is essentially a producer responsibility initiative. Under the Regulations, therefore, producers are responsible for establishing national collection systems – comprising of authorised treatment facilities - for the appropriate treatment and recovery of end-of life vehicles, registering with each local authority and submitting an Implementation Plan / Annual Report / Registration Fee, keeping records, restricting the use of specified hazardous substances in the manufacture of vehicles, making use of component and material coding standards, providing technical documentation on request and making available dismantling information for new vehicles within six months of their being placed on the market.

The costs for producers of conducting these operations are cited in the Regulatory Impact Assessment (RIA). Work by the consultancy KPMG recommended a levy per ELV firstly of €153 (excluding VAT), then offered a revised figure in a subsequent study of €120(excluding VAT). The second report noted that there was scope for the price of any proposed levy to fall to €60/€70 per vehicle. The Irish RIA also cites work on costs of dismantling identified in the UK's RIA. Finally it highlights costs associated with establishing new authorised treatment facilities. While there is no accurate information available, the initial investment in Ireland to ensure a national network of 43 contracted ATFs to the standards required by the Regulations could cost in the range of €1.7m.

⁵⁷ [http://www.environ.ie/DOEI/DOEIPol.nsf/0/c8f71c4e05251d8280256f0f003bc802/\\$FILE/Application%20for%20Registration.pdf](http://www.environ.ie/DOEI/DOEIPol.nsf/0/c8f71c4e05251d8280256f0f003bc802/$FILE/Application%20for%20Registration.pdf)

⁵⁸ Statement on Regulatory Impact, Waste Management (end-of life vehicles) Regulations 2006, S.I. No. 282 Of 2006, [http://www.environ.ie/DOEI/DOEIPol.nsf/0/c8f71c4e05251d8280256f0f003bc802/\\$FILE/Statement%20on%20Regulatory%20Impact%20May%2006.pdf](http://www.environ.ie/DOEI/DOEIPol.nsf/0/c8f71c4e05251d8280256f0f003bc802/$FILE/Statement%20on%20Regulatory%20Impact%20May%2006.pdf)

In order to cover Local Authority costs in terms of administering the scheme and enforcement, producers are charged a fee based on the scale of their operations in Ireland. The charges are set out below.

- €1,000 for producers whose annual turnover was less than or equal to €50,000,000 in the preceding twelve month period, or as appropriate,
- €2,500 for producers whose annual turnover was greater than €50,000,000 but less than or equal to €100,000,000 in the preceding twelve month period, or as appropriate,
- €6,000 for producers whose annual turnover was greater than €100,000,000 in the preceding twelve month period,
- €1,000 for a producer -
 - (i) whose annual turnover was less than or equal to €1,000,000 and
 - (ii) who placed less than 10 specified vehicles on the market in the State

The registration fee system will have cost implications for industry estimated at €3.4m annually, but enable cost recovery by local authorities.

One group of Local Authorities have reported that they will conduct activities such as audits of waste collection facilities and waste permit holders to ensure accurate records are kept. They also planned education campaigns for the public to coincide with the implementation of the ELV Directive⁵⁹. Little further information regarding the specific enforcement activity was available aside from legislative requirements, these are expressed in general terms within the Regulations.

Implementation/achievement of recycling targets

According to research by the Irish EPA, ELVs have traditionally undergone relatively high levels of recycling due to their high content by weight of ferrous metal. There were a number of potential routes that an ELV may take in Ireland, reported by the EPA in 2002. 'At dismantling facilities, parts may be removed and sold for re-use. The rest of the ELV may be delivered to a metal merchant or directly to a metal shredder. Metal merchants often process the ELV by crushing, before delivery to one of the shredding facilities. Metal shredders process the metal to a required standard before it is shipped to a metal recycling company'. It should be noted that before the reclassification of ELVs as hazardous waste auto shredder residue, although not exclusively resulting from processing of end-of life vehicles, was generally landfilled.

⁵⁹ Replacement Waste Management Plan for Limerick/Clare/Kerry Region 2006-2011, Policy objectives & targets for priority wastes, 16.4 end-of life vehicles,

http://www.clare.ie/Environment/WasteMPlan/Priority_Wastes.pdf

Waste Management (end-of life vehicles) Regulations 2006 (S.I. No. 282 of 2006), Frequently Asked Questions, [http://www.environ.ie/DOEI/DOEIPol.nsf/0/c8f71c4e05251d8280256f0f003bc802/\\$FILE/Frequently%20Asked%20QuestionsParis.pdf](http://www.environ.ie/DOEI/DOEIPol.nsf/0/c8f71c4e05251d8280256f0f003bc802/$FILE/Frequently%20Asked%20QuestionsParis.pdf)

The Waste Regulations 2006 transpose directly the targets set in the ELV Directive expressed as

- 85% reuse/recovery with 80% reuse/recycling by average weight per vehicle and year, on and from the date of commencement of the Regulations, and
- 95% reuse/recovery with 85% reuse/recycling by average weight per vehicle and year, by the 1 of January 2015.

It should be noted that the date of commencement of the Regulations was the 8 June 2006.

The Regulatory Impact Assessment (RIA) that accompanied the Regulations states that achieving the recycling targets will pose a ‘significant challenge’ for the metal recycling and vehicle dismantling sectors in Ireland. While the recycling of the 75 % steel and aluminium may not be so problematic, it will be necessary to increase the recycling of the non-metal components, plastics in particular. It was reported in the RIA that the EPA were planning to conduct trials (working with shredders) to assess the material content of ELVs recovered in Ireland.

Given that the Regulations were only implemented recently in Ireland reliable statistics could not be identified on current recycling levels. According to the EPA report published in 2002, Ireland did not have indigenous metal recyclers in operation. This followed the closure in June 2001 of Irish Ispat, the only company involved in the recycling of ferrous metals in Ireland. There are no details as to whether this situation has changed; this may mean that considerable quantities of waste metal must be exported for recycling. Commonly exports of such materials from Ireland go to the UK on account of its proximity.

Other issues

None raised.

ITALY

Introduction to ELVs in Italy

The number of registered passenger cars in Italy amounts to 34,667,485; there are 3,637,740 commercial vehicles (i.e. categories N1, N2, N3) in a total of 45,185,101 vehicles. There are several Italian car manufacturers: FIAT, Alfa Romeo, Lancia, Innocenti, Autobianchi. Altogether they are responsible for 51 % of deregistered cars; of these, however, Fiat has by far the largest share (32 %) of the total.

As shown in Table 4, in 2005, 2,862,576 passenger cars were deregistered (of which 15 % were 20 or more years old). Of these, the majority, 42 %, were scrapped; 40 % were deregistered by the public authority for being in breach of paying road taxes for more than 3 years⁶⁰; 11 % were exported (of these, 98,729 (30 %) were exported as second hand cars); and 4 % were garaged (i.e. deregistered for circulation only in private areas). There is no data available on deregistrations of the other category included in the Directive, N1 vehicles. However, more broadly, within a fleet of 3,637,740 commercial vehicles, 202,756 were deregistered (6 % of the total). Of these, 49 % were cancelled from the public register for not paying road taxes for more than 3 years; 32 % were scrapped; 9 % were exported (of these 11,932 (63 %) were second hand); while another 9 % was deregistered to be used only in private areas (i.e. garaged).

Table 4 - Number of cars and commercial vehicles deregistered in Italy in 2005

Measures	Cars	Commercial vehicles (N, N1, N2, N3)
Scrapping	1,228,414	65,447
Exports	324,324	18,804
Garaging (use in private areas)	138,649	18,257
In breach of road taxes for more than 3 years	1,166,350	99,772
Other	4,839	476
TOTAL	2,862,576	202,756
TOTAL (net of cars in breach of paying taxes and garaged)	1,557,577	84,180

Source: ACI, Istat, 2006

The category 'other' in Table 4 includes mainly abandoned cars or commercial vehicles removed by the police from public areas. This represents a small percentage of total deregistrations, however it is still a considerable number.

⁶⁰ Under this procedure deregistered cars can, if apprehended on the road, be seized by the authorities; but it is likely that many remain in use illegally or have been abandoned.

Perhaps more important, a very large share of cars deregistered, were found in breach of road taxes payments, and this was considered mostly an indicator of car abandonment. On top of these, until 2005, there was an extensive record of the use of the ‘garaging’ option; again, there is evidence that this option was in fact used to abandon cars in private properties. On this specific issue, the European Commission sent a reasoned opinion to Italy on 14 December 2004 (C(2004)5023), for this choice being inconsistent with European legislation. Therefore, since 27 April 2006, cars used in private areas will have to be regularly registered.

Another indicator of ELVs abandonment (and possibly also garaging) practice in Italy emerges by an analysis of historical series on deregistrations. As we can see from Table 5, the number of passenger cars deregistered in 1997 almost doubled in correspondence with a Law (30/1997) which offered incentives to car owners for scrapping their ELVs (the Law was valid only in the years 1997 and 1998). Although since 2001 the number of deregistrations increased again, compared to the previous decade, they never reached the level they did under the incentives campaign, therefore providing another useful indicator of how, before and after the incentives, many cars were probably not passing through deregistration and were dealt with by an illegal method.

Table 5 - Vehicles deregistration between 1991 and 2005 (excl. cars not paying taxes)

1991	1993	1995	1997	1999	2001	2003	2005
1,225,400	1,395,441	1,094,180	2,037,426	1,231,480	1,784,711	1,806,322	1,701,469

Source: Automobil Club Italy (ACI)

Another element to take into consideration is car crime. Italy has the third highest number of car thefts in the EU, after the UK and France, and there is evidence of a prosperous market of car components and metals. In Italy, a considerable number of cars (97,182) were stolen in 2005 (World Vehicle Documents, 2006).⁶¹

Responsibilities for the implementation of the ELV Directive in Italy are split among three levels: the Competent Authority for the transposition of the Directive is the *Ministero per la Tutela dell’Ambiente e del Territorio* (MATT – ministry for environmental protection and landscape); the monitoring and national reporting is a competence of the *Agenzia per la Protezione dell’Ambiente e per i Servizi Tecnici* (APAT – environment agency); permitting and regional monitoring is a responsibility of Provinces. Some information on transposition and implementation, although very incomplete, is available from the compilation, in March 2006, of the questionnaire on the implementation of Directive 2000/53/EC on end-of life vehicles. No official data on recovery, reuse and recycling have been yet published at the time of writing.⁶² Information on the progress in achieving reuse, recycling and recovery targets (required under art. 9.2.) has been published for the past seven years by the Joint Trade Association of Reuse, Recycling and Recovery Industries (FISE UNIRE). The collaboration with APAT and the National Observatory on Waste (ONR), part of MATT, ensures that data are quite reliable.

⁶¹ <http://www.vehicle-documents.it/statistica/AUTO1.pdf>

⁶² Sources within APAT stated Italy will send the implementation report to the Commission in the first quarter of 2007.

Transposition of the Directive

Italy transposed the Directive with Legislative decree no. 209 of 24 June 2003.⁶³ It includes N1 and M1 categories and three wheel vehicles as categories of ELVs. However, in 2004, 2005 and 2006 (the last was 28 January 2006 (Official Journal C22/6), the Commission sent reasoned opinions to Italy and then referred to the Court of Justice for non-conformity of the national legislation transposing the ELV Directive: in particular, for failing to include the necessary measures to ensure that definitions, scope and enforcement of the Directive are transposed within the national legislation. In particular, the following points have been raised:

- *Definitions*: the definition of ELVs as waste and their treatment is not in line with the Directive;
- *Hazardous materials and components*: it is not clear from the Italian legislation that all dangerous components and materials included in Annex II should be stripped from the ELVs before further treatment;
- *Certificate of destruction*: not ensuring that the *certificate of destruction* is issued only by authorised scrapping centres and that the certificate is a condition for deregistration;
- *Free take back*: the law does not appropriately address the need to ensure that producers meet all, or a significant part, of the free take back provision of the Directive;
- *Depollution*: it does not adequately ensure the depollution and adequate storage of dangerous components of ELVs before treatment;
- *Recycling*: it does not adequately ensure that recycling has the priority over other forms of recovery;
- *Information and monitoring*: it excludes certain important provisions of the Directive within the agreements under Art. 10 of the Directive; it does not set a monitoring system for the assessment of the recycling and recovery targets by 1st January 2006 as required; it does not ensure that the appropriate information on vehicles and their components is given to treatment centres; it does not put in place the necessary monitoring and communication systems to ease public authorities and the European Commission's involvement in the process.

In order to address these requirements and to implement effectively the Directive, the Italian government has integrated the transposition Law with a corrective legislative Decree (Dlgs. no.149) on 23 February 2006.⁶⁴ On 2 May 2006, it also published a Decree addressing the minimum technical requirements for treatment and treatment facilities (Art. 6 and Annex I of the Directive).⁶⁵

⁶³ Official Journal 7 August 2003, n. 182 – s.o. n.128/L.

⁶⁴ Dlgs. 23 February 2006, n.149, 'Disposizioni correttive ed integrative al decreto legislativo 24 giugno 2003, n. 209, recante attuazione della direttiva 2000/53/CE in materia di veicoli fuori uso' <http://gazzette.comune.jesi.an.it/2006/86/1.htm>

⁶⁵ Decreto 2 May 2006 (Gazzetta ufficiale 16 maggio 2006 n. 112) (Art. 231 del Dlgs 3 april 2006, n. 152 - Requisiti relativi al centro di raccolta e all'impianto di trattamento dei veicoli fuori uso non disciplinati dal Dlgs 24 giugno 2003, n. 209) http://www.reteambiente.it/ra/normativa/rifiuti/2302_Dm02Mag_06_vige.htm

Moreover, a number of improvements were brought within the existing inadequate monitoring system with a Decree (DCPM) on 22 December 2004,⁶⁶ which institutes a new section for ELVs treatment facilities within the MUD⁶⁷ (the annual environmental statement required under the IPPC Directive)⁶⁸. This will represent the principal tool for monitoring ELVs management operations. Sources within APAT told us that the first set of data coming from the new monitoring mechanism should include, as of 2005, specific data on the number of authorised treatment facilities, their input and output and on the specific type of wastes treated therein. This data should be included in the first Italian implementation report.

Implementation of free take back

The transposition Law (209/2003) requires car manufacturers to be responsible for the creation of a network of retailers or treatment plants for the free take back of vehicles. The Law provides for this requirement to be in place by the end of 2003, for cars on the market since 1 July 2002, and by 1 January 2007 for all ELVs. However, the Law postponed the date by which the Ministry of the Environment had to issue the measures for the free take back of vehicles to 1 January 2006; in practice the requirement for all cars was postponed to 1 January 2007. Indeed, there is no evidence before 2005 of car manufacturers creating the networks required for the implementation of the free take back.

In May 2005 car manufacturers, represented by the trade association of Italian car manufacturers (ANFIA) and the trade association of foreign car manufacturers (UNRAE), signed an agreement with the car dealers trade association (FEDERAICPA) and the association of dismantlers and scrap dealers (FISE UNIRE), in order to create a network to facilitate the flow of ELVs and the demand/supply match on the national territory.⁶⁹ The agreement states that producers will pay for the ELV take back, excluding the last owner's costs of transport to the retailer or to the treatment facilities and the administrative costs of deregistration. On 10 November 2006, the above agreement was enlarged to include the national trade association representing recovery and recycling industries (ASSOFERMET). The agreements aim at creating networks that will facilitate the achievement of recovery targets by minimising costs and achieving economic sustainability. By the end of 2006 almost 200 plants were operating within this network – although this is not a large number for a country of the size of Italy. As a support measure, the Government decided to reduce VAT on ELVs treatment operations by 10 %, in line with other wastes.

Implementation/achievement of recycling targets

An analysis shows that in 2000, circa 75 % of ELVs were either reused, recycled or recovered in Italy. This percentage was almost entirely represented by scrap metals, totally absorbed by existing recycling facilities. Moreover, 27,000 tonnes per year of plastic components (only homogenous polymers) were absorbed by existing facilities, which had potential for further expansion (however, there was no capacity available for composite plastics materials). Also, the rubber recycling industry had a capacity equivalent to three times the potential ELVs market (50,000 tonnes per year) of rubber at the time; as well as the glass recycling capacity, which at the time could receive an additional 145,000 tons (ELVs

⁶⁶ *Dpcm 22 dicembre 2004, Approvazione del modello unico di dichiarazione ambientale per l'anno 2005 - cap. 1 sezione veicoli a fine vita o fuori uso.*

⁶⁷ MUD, *Modello Unico di Dichiarazione ambientale*

⁶⁸ The new section of the MUD was published before Decision 2005/293/CE on monitoring and control of the ELVs Directive's targets; however sources within ANPA state they will use it for the Decision's purposes as it is a flexible tool.

⁶⁹ On 12 May 2005 an agreement with FISE UNIRE and FEDERAICPA (retailers trade association).

glass being 35,000 tonnes per year). The installed capacity witnesses the existence of an economically sustainable recycling market in 2000 for the above components and materials. Still, most of the 25 % ELVs waste remaining from scrapping, the so called 'fluff' (e.g. seat filling, fuel caps, textiles, gaskets, varnishes), was sent to Germany for recovery. In 2005, still 82 % (247,000 tonnes per year) of 'fluff' was not yet recycled or recovered in Italy. There is still no available energy recovery capacity in Italy, to the detriment of the achievement of the targets set by the Directive. Indeed, FISE UNIRE estimates that if Italy had a fluff combustion capacity, it would have met its 2006 target. However this is an expensive option and in 2005, only 79.4 % of the total ELVs were reused, recycled or recovered:

- **Reuse:** Components and parts (10 % of total ELVs weight or 120,000 tonnes per year) were reused.
- **Recycling:** Hydrocarbons and fluids deriving from pre-treatment (1 % of total weight or 14,000 tonnes per year); Metals (70 % of total weight or 800,000 tonnes per year).
- **Recovery (energy):** none.

On the contrary, the second target, concerning vehicles produced before 1 January 1980, was reached: of these old cars, reuse and recovery is deemed at least at 75 % and reuse and recycling at least 70 %.⁷⁰

More upstream, the real difficulties in Italy appear to be at the pre-treatment level. In 2005 there were 125, reported to become 200 by 2006, permitted facilities. The main obstacle is the nature of treatment facilities in Italy. Indeed, these are constituted mainly by multifunctional treatment platforms, which treat different wastes, such as municipal solid waste, together with ELVs. The economic burden of upgrading such platforms to the environmental requirements of the ELV Directive is a powerful deterrent for most of them, who might decide to switch to other wastes, instead of upgrading. Additionally, there are a vast number of scrapping plants (1,562) scattered on the territory, which are therefore very difficult to licence and monitor. At the end of the treatment cycle, there are only 18 crushing plants for scrap material in Italy; of these 17 treat ELV scrap.

Other issues

No producer and its vehicles have been exempted from Article 8 on component and material standards and Article 9 on the publication of information relative to vehicle design and ways to reuse, recycle and recover. On the latter, all Italian car manufacturers participate in the international consortium called IDIS (International Dismantling Information System), through which they provide dismantling information on a number of their models to dismantling operators.

The materials and components listed in Art. 4.2. of the Directive are banned since 1 July 2003; Art. 9 of Decree 209/2003, tables the necessary measures to ensure the transposition this requirement by that date. On the bans, the Italian car manufactures association (UNIRE) told us there have not been issues on their side in implementing the ban of those substances.

⁷⁰ Questionnaire established by Commission Decision 2001/753/EC concerning the implementation of Directive 2000/53/EC on end-of life vehicles, March 2006:
http://cdr.eionet.europa.eu/it/eu/elv/envq_ix2w

Also, linked to ELVs issue, is that of end-of life tyres. On this, with the aim of improving the efficiency of recovery of end-of life tyres, a Decree in April 2006, no. 152⁷¹, makes tyre producers and importers economically responsible for the recovery (on an annual basis at least) of a quantity of end-of life tyres equal to the quantity sold in the market. Producers can operate through another economic operator, ensuring that they take all the costs of the recovery of a quantity equal to that sold in the previous year.

⁷¹ *Decreto Legislativo 3 aprile 2006, n. 152, 'Norme in materia ambientale, National Official Journal n. 88, 14 April 2006, Supplemento Ordinario n. 96.*

MALTA

Introduction to ELVs in Malta

In Malta, in 2005, the total number of vehicles on the road was 271,338, of which 206,548 (76 %) were passenger cars and 43,971 (16 %) commercial vehicles, the latter being a category considerably wider than the N1 included in the ELVs Directive, as it includes goods carrying vehicles, special purpose vehicles and tractor units. In that same year, 13,940 end-of life vehicles were scrapped, 69 exported and 8,272 were garaged. Unfortunately, to the detriment of our enquiry, data available on deregistration do not distinguish among types of vehicle. Data are only available starting from 2003.

Table 6 - Vehicles deregistered in Malta

Measures	2003	2004	2005
Scrapped	2,798	5,529	13,940
Garaged	5,754	9,383	8,272
Exported	101	126	69

Source: ADT⁷²

Malta was required to implement the Directive upon the date of accession in 2004. However it is still struggling to implement the requirements of the Directive. Abandoned cars and illegal scrap yards have, until recently, been a common sight on the Maltese landscape. However, in 2006, many were closed under charge of being in breach of land use legislation, whilst the scrap material collected has been ‘sent for recycling’.

Some hints might also be derived by the data in Table 6, which suggests a significant tightening of enforcement. Indeed, it is striking the almost fivefold increase in the number of scrapping since 2003. Although we cannot attribute it all to the introduction of the ELV Directive, and there is no mention of methodological changes or incentive campaigns for scrapping for example, we can however not exclude the possibility that a significant part of this is attributable to a more tightly regulated environment.

Also, the option of garaging cars⁷³ has been growing considerably in the last two years. The number of cars deregistered for use in private areas increased, on average, by 53 %. This option has been reported also in other MS to be a mechanism for not paying scrapping costs, on the part of the owner, or of the treatment operator, in situations where there is not sufficiently strict monitoring and control. This increase might be therefore an indicator that the option of garaging is still, for the car owner or for facilities operators, more economically viable than scrapping vehicles under the Directive’s requirements.

The Competent Authorities for the implementation of the ELV Directive are the Malta Environment and Planning Authority (MEPA), responsible for permitting and for the requirements concerning the entire ELVs treatment cycle, and the Authority for Transport (ADT), responsible for example for the requirements concerning the ban on hazardous substances and deregistration.

⁷² Statistics on Motor Vehicles, Authority for Transport, Malta:
<http://www.maltatransport.com/en/tsd/transportstatistics/motorvehicleownership.shtml?s=D99670D2-7D7112122504-39EE>

⁷³ When a vehicle is garaged, the owner has to return the vehicle license, registration certificate, number plates and any other documents related to the vehicle’s use on the road. Thus the owner can keep the vehicle without being effectively used on the road and without paying any fees, such as road tax.

Transposition of the Directive

The Directive was transposed in 2004 with Malta's accession to the European Union, by the Waste Management Regulations relative to End-of life Vehicles, published with Legal Notice (LN) 99 in April 2004.⁷⁴ The Minister for Rural Affairs and the Environment set 1 May 2004 as the date when the said regulations would have had to come into force.⁷⁵ However, the implementation in Malta is, at the moment of writing, only 'theoretical'⁷⁶. The report on implementation of the Directive, due by 21 January 2006, has not yet been drafted by MEPA. However, sources inside MEPA assured us the Commission is aware of the difficulties that Malta is facing in the implementation of the vast legislative *acquis* with very limited administrative resources, and that, so far, for this reason it has not taken any enforcement action against the MS.

In line with the requirements of the Directive, the transposition law includes the vehicles categories M1 and N1, including three wheel motor vehicles.

Implementation of free take back

The transposition Law is consistent with the text of the Directive in requiring that producers should meet all, or a significant part of, the costs of collection, as prescribed under Art. 5.4. of the ELV Directive. However, Malta's interpretation of this Article was that free take back should not necessarily be imposed on car manufacturers. Therefore, in practice, it placed the obligation on treatment operators (i.e. scrapping facilities), placing an indirect obligation on car manufacturers to finance the process. In this way, in order to get the authorisation to treat cars under the Directive, scrap yards will have to include a copy of a contract with a car manufacturer or importer. The contract will have to state that a car manufacturer or importers will finance the costs of the free-take back, participating therefore in an authorised ELVs collection and treatment scheme.

Also, under Article 11 of its transposition Law, Malta linked the participation in an authorised ELV collection and treatment scheme to the exemption of car manufacturer or importers from all, or part of, their reporting and information requirements (Article 9(2)). These include the publishing of information on the design of vehicles, the removal of all fluids, dismantling and ways to optimise reuse recycle and recover and on the progress achieved so far. This is a further attempt to incentivise other economic operators to be involved in the collection and treatment process and to favour agreements among economic operators. However, apart from these provisions, there is no evidence of a coherent set of agreements between car manufactures or importers and MEPA for a better implementation of the Directive, as suggested by Article 10(3).

Presently, the registered owner of a car who wishes to scrap an ELV has to return all documents/plates related to the vehicle and confirm that it will no longer be used. Consistently with paragraph 5.3 of the Directive, the vehicle can be deregistered only upon presentation of the certificate of destruction (art. 5 of the transposition law and Article 50 of the Traffic Regulation ordinance (LN 476/2004 and LN 48 2006).

⁷⁴ L.N. 99 of 2004 - Environment Protection Act (CAP. 435) Waste Management (End-of life Vehicles) Regulations, 2004.

⁷⁵ L.N.164 of 2004 ENVIRONMENT PROTECTION ACT, (CAP. 435), Commencement Notice of the Waste Management (End-of life Vehicles) Regulations, 2004.

⁷⁶ Many of the considerations included in this chapter have been collected through contacts with the Waste Management Environmental Agency Malta

However, it has to be noted that in the Transport Authority web page, under the section for practical guidance on scrapping and in the FAQ section there is no evidence of a specific requirement that the certificate of destruction is presented as a condition for deregistration⁷⁷. It is just made a requirement for the owner to ‘confirm that it will no longer to be used on the road and can never under any circumstances be registered or relicensed’ and, again, ‘the owner is legally obliged to effectively physically scrap the vehicle’.

The car holder taking an ELV for scrapping, would in most circumstances have its ELV paid for by scrap yards. These will in turn sell on the valuable material coming from the ELV for recycling. However, it has to be noted, that this situation is affordable only when the operator has not to pay for the costs of waste disposal, which would follow the appropriate implementation of the Directive.

Implementation/achievement of recycling targets

The Maltese transposition Law, in line with Art. 7 of the Directive, requires that economic operators reuse and recover at least 85 % on average of ELVs by weight, annually, and reuse and recycle at least 80 % of ELVs by weight; while, for those vehicles produced before 1 January 1980, the Maltese Government allows the target to be lower, still not lower than 75 % for reuse and recovery and not lower than 70% for reuse and recycling. By 2015, for all ELVs, reuse and recovery should increase to 95 %, while reuse and recycling should be increased to a minimum of 85 %.

The application of this Article, however, is highly dependent on the application of previous Article 6, requiring that ‘any establishment or undertaking carrying out treatment operations obtains a permit or is registered’. However, at the time of writing, the Waste Management team of MEPA is currently processing applications to assign permits under the ELV Directive: there are no authorised facilities for the treatment of ELVs and also, no timeframe is available or foreseeable on when treatment facilities in Malta will be in line with the Directive.

This process is likely to be lengthy, as the Agency has set conditions for which a scrap yard, in order to be in line with the ELVs Directive, has to apply both for a waste management permit (envisaged by Waste Management regulations of 2001) and for a land-use permit. The latter is required for the development of new activities on the territory.

Additionally, Maltese scrap yards will need to upgrade their capacity for pre-treatment, or ‘depollution’. Indeed, presently, facilities do not process ELVs with the care required for stripping the car of hazardous material and separating these from other components. Therefore, within the treatment, some of the requirements of Art.6 of the Directive are not yet put in place.

Regarding recycling, Malta exports most of the recyclable parts of ELVs to other countries, in particular lead from batteries, metals, plastic and glass. MEPA has not yet produced its report on implementation (which was due for January 2006); there are no available data on recovery, recycling and reuse of ELVs.

In short it will still take some time before all the conditions required can be put in place, and even longer before accurate reporting against the targets will flow through the system. In the light of the analysis performed for this study, as can be confirmed by sources within MEPA, it can be concluded that there is not sufficient evidence available in order to assess the achievement of the reuse and recovery targets included in Article 7(2a) of the Directive.

⁷⁷ Authority for Transport web page on scrapping and garaging
<http://www.maltatransport.com/en/new/motorvehicles/scrapping.shtml>

Other issues

Malta was required to implement the Directive upon the date of accession in 2004. However it is still struggling to implement the requirements of the Directive. The main problems that the Member State is facing can be summarised as the following:

- Lack of capacity (there are no authorised treatment facilities in the country and the exiting scrapping capacity needs to be upgraded);
- Bad practices are in place (i.e. poor implementation of Art. 6.2. relative to the depollution of ELVs, stripping of hazardous materials and components);
- Lack of enforcement (there is an acknowledged difficulty in having operator enforcing legislation once is in place);
- Lack of administrative resources to implement and administer the system.

As a consequence, most of the recyclable and reusable material is exported and what is recovered is mostly done under inadequate conditions (see above for the implementation of Article 6). Moreover, car manufacturers have been only marginally involved and there is no evidence of agreement between these and the government.

THE NETHERLANDS

Introduction to ELVs in the Netherlands

The number of cars in use in the Netherlands amounts to more than 8 million, of which more than 7 million are passenger cars and almost 1 million light commercial vehicles (LCVs). In recent years, the annual sales of new cars have been declining, reflecting an increase in average life. In 2005, 465,196 passenger cars and 65,908 LCVs were sold. The number of cars produced or assembled in the Netherlands is relatively small, and most of them are exported. Only 0.4 % of the new cars sold in 2005 were produced domestically. About 60 % of the newly registered cars are imported from Germany or France⁷⁸.

In recent years, about 45,000 used cars were imported annually⁷⁹. No data are available on the countries of origin.

Data on the import of car wrecks are lacking, but it can at least be concluded that car wrecks are not among the two largest types of imported waste⁸⁰. In early 2006 an increase in the import of car wrecks was noticeable, following a judgement by the European Court of Justice that it should be possible to register imported cars even if they were not fit for use. The imported car wrecks are probably used to change the license plates and chassis numbers of stolen cars⁸¹.

In 2005, 508,000 cars were deregistered, of which 246,000 were scrapped and 262,000 exported⁸². The export of used cars has increased in recent years, especially to Poland and other new EU Member States.

There are no indications of any major export of car wrecks for scrapping abroad. Car wrecks are not among the eight largest types of exported waste⁸³. The transport costs of car wrecks are probably too high in comparison with the value of the materials they contain and the costs of dismantling them domestically.

Transposition of the Directive

Directive 2000/53/EC was implemented in Dutch law by the *Besluit beheer autowrakken*⁸⁴ (Decree on car wreck management). This decree entered into force on 2 July 2002. As required by the Directive, it applies to all passenger cars and commercial vehicles up to 3,500 kg (categories M1 and N1 in Annex IIA to Directive 70/156/EEC), as well as to three wheel motor vehicles (excluding motor tricycles).

In December 2003 the Commission started an infringement procedure against the Netherlands, concerning two elements of the Directive.⁸⁵

⁷⁸ BOVAG-RAI (2006), *Mobiliteit in cijfers 2006 – Auto's*. Stichting BOVAG-RAI Mobiliteit, Amsterdam.

⁷⁹ BOVAG (2007), information from website www.bovag.nl (accessed 02.01.2007).

⁸⁰ SenterNovem (2005), *Nederlands afval in cijfers, gegevens 2000-2004*. SenterNovem, *Uitvoering afvalbeheer*, Utrecht, October 2005.

⁸¹ *Nederlands Dagblad* (2006), "Ingevoerde sloopauto's omgekat". *Nederlands Dagblad*, 25 February 2006.

⁸² ARN (2006), *Milieuverslag / Environmental Report 2005*. Auto Recycling Nederland, Amsterdam.

⁸³ SenterNovem (2005), *Nederlands afval in cijfers, gegevens 2000-2004*. SenterNovem, *Uitvoering afvalbeheer*, Utrecht, October 2005.

⁸⁴ Staatsblad 2002, 259. The Decree contains a table showing how each element of the Directive is implemented in Dutch legislation.

⁸⁵ 2003/2190 C(2003)5142.

These concern the definition of ‘treatment’ and the promotion of certified environmental management systems in treatment plants. These issues are addressed in a draft amendment to the Decree that was presented to Parliament on 10 July 2006.⁸⁶

Implementation of free take back

In the Netherlands, a voluntary system of free take back of ELVs was already introduced in the 1990s. This was an initiative of the main business organisations in the car industry. The organisation ‘*Auto Recycling Nederland*’ (ARN) was established to operate the system. ARN cooperates with certified car scrapping and recycling firms and pays them for the unprofitable parts of their operations. The payment is calculated on the basis of standard amounts for 20 different materials/components. The system includes provisions for monitoring and enforcement.

The ARN system is financed by a fee that is levied on all new car registrations (except for cars older than 25 years). From 2000 until 1 January 2007 this fee amounted to €45; it has now been reduced to €15. The system is fully self-financing, so it can be said that the car producers and importers (and ultimately the purchasers) pay the full cost of ELV management.⁸⁷

Since the Decree on car wreck management entered into force, the previously voluntary system has become legally binding. The ‘free take back’ provisions have been applicable to all vehicles since the Decree entered into force in July 2002. Postponement until 2007 for cars put on the market before 1 July 2002 was not deemed necessary.

The Decree stipulates that car wrecks have to be handed in at licensed dismantlers, car dealers, garages or repair shops, or at foreign companies importing car wrecks in conformity with the EU Regulation on waste shipment. In addition to the free take back of car wrecks, producers and importers are obliged to ensure a collection system covering the whole country, as well as a treatment system.

At present, companies affiliated to ARN treat about 91 % of the total number of ELVs in the Netherlands⁸⁸.

The Dutch system for the collection and treatment of ELVs is generally regarded as an effective one. Implementation of article 5 of the Directive has not caused any major problems. This should not come as a surprise, since the Commission’s proposal for the ELV Directive was inspired by the pre-existing Dutch system.

⁸⁶ Staatscourant 12 July 2006, nr. 133, p. 12.

⁸⁷ In fact, the level of the fee may have been too high in the past. For this reason, the Commission started a state aid procedure in 2001, as it suspected that the Netherlands overcompensated its car scrappers and recyclers. However, the case was withdrawn eventually (Decision 2002/204/EC, OJ L68, 12.3.2002).

⁸⁸ GHK (2006), A Study to Examine the Costs and Benefits of the ELV Directive – Final Report, Annex 4. <http://ec.europa.eu/environment/waste/pdf/study/annex4.pdf>.

Implementation/achievement of recycling targets

In 2005, the ARN related car scrappers in the Netherlands achieved 85.3 % recycling and recovery, of which 82.5 % material recycling⁸⁹. The reuse and recycling targets of 85 and 80 % had already been achieved in the Netherlands by 1997, well before the introduction of the ELV Directive.⁹⁰ Given this head start, the national target was set at a more ambitious level: the 95 % recovery target was set for 2007 instead of 2015.

ARN has announced plans to build a 'Post Shredder Technology' (PST) plant, which would enable the further processing of shredder waste. Nevertheless, achievement of the 95 % target by 2007 appeared to be unfeasible, and ARN has asked the State Secretary for the Environment to postpone the target to 2015, as in the ELV Directive. This request has been granted on the condition that the PST plant will actually be built.

Other issues

Car manufacturing in the Netherlands is relatively insignificant, and the development and design of new models takes place elsewhere. No specific Dutch problems or issues can therefore be identified relating to the ban on certain hazardous substances in article 4(2) of the ELV Directive, or relating to material coding standards (article 8(1)).

By 2002, the car scrappers affiliated to ARN generally already complied with the requirements for ELV treatment as specified in Article 6 of the Directive⁹¹.

As the Netherlands has implemented the Directive by means of a Decree, no use has been made of the option given in Article 10(3) to transpose certain provisions by means of agreements between the competent authorities and the economic sectors concerned. Nevertheless, the Dutch system leans heavily on the voluntary ARN initiative, including the disposal fee that was declared generally binding by the State Secretary for the Environment.

⁸⁹ ARN (2007), information from website www.arn.nl (accessed 02.01.2007).

⁹⁰ See the Explanatory Memorandum to the Decree on car wreck management, page 13.

⁹¹ Handhaving (2002), "*Autowrakkenbesluit maakt handhavers sociaal*". Handhaving, issue 3, p. 27-29.

SWEDEN

Introduction to ELVs in Sweden

The car industry is Sweden's most important exporting sector, accounting for more than 15 % of total Swedish exports in 2004 with 290,400 cars manufactured in Sweden itself. Of all cars on the road Volvo is the most common brand with 1,200,000 cars produced, followed by Volkswagen (VW) with 500,000 cars and SAAB with 440,000⁹². The total number of passenger cars in use at the turn of the year 2005/2006 was 4,153,674, which is an increase of 40,250 cars compared to the turn of the year 2004/2005.⁹³

In 2004 the number of scrapped cars under 3,500 kg was 234,860. The highest proportion of cars scrapped is from year 1989 (32,882 cars), followed by year 1988 (27,980 cars) and year 1985 (20,954 cars).

There is no evidence of a considerable export market of second-hand cars/vans to less prosperous countries. Neither is there any evidence of illegal exports from the Member State linked to the implementation of the Directive.

The reporting requirements of the producer are controlled by the Swedish Environmental Protection Agency (SwEPA). The producer is required to submit data to SwEPA, which enables it to assess the degree of reuse/recovery/recycling. Bil Sweden, which represents manufacturers and importers of cars, coordinates and collects the reporting from the producers. Every year since 2001 the SwEPA has published a report on how waste subject to producer responsibility has been dealt with. This report contains also a section on the current state of play regarding producer responsibility and the scrapping of cars. The report also includes recommendations by SwEPA, addressing any emerging problems.

In addition the Swedish Car Recyclers Association (SBR) carries out every year a questionnaire survey among its members, producing data on the number of scrapping certificates issued and on the quantity of waste generated for a number of selected waste types.⁹⁴

Transposition of the Directive

Sweden has a long history of tackling the problem of abandoned cars prior to the implementation of the ELV Directive. The Car Scrapping Law (SFS 1975:343) and the Car Scrapping Ordinance (SFS 1975:348) were enacted in order to regulate the problems that had been observed of end-of life vehicles being abandoned in the countryside. The Ordinance on Producer Responsibility for Cars (SFS 1997:788), which came into force 1 January 1998, is the main piece of legislation that covers the requirements of the ELV Directive. The Government Bill 2000/01:47 dated 7 December 2000 and the parliamentary decision dated 14 March 2001 contain amendments to the Car Scrapping Law, implementing remaining parts of the ELV Directive.

⁹² Statistics Sweden: http://www.scb.se/templates/tableOrChart_34751.asp

⁹³ SIKA Statistik (2006) *Vehicles in counties and municipalities at the turn of the year 2005/2006* 002:0601, Statens Institut för Kommunikationsanalys, 2006:4

⁹⁴ SwEPA (2006), *Quality Report for statistics on generation and recovery and disposal of waste in Sweden 2004 according to EU Regulation on Waste Statistics 2150/200*, Report 5994, June 2006

The Ordinance on Producer Responsibility for Cars defines a vehicle as in the Ordinance on Road Traffic Definition (2001:559), which covers light commercial vehicles as well as passenger cars.

The dates of the Swedish requirements differ from those set in the ELV Directive. The year when the total level of reuse, recovery and recycling is to reach 85 % was set at 2002, compared to 2006 in the ELV Directive. However, the year for achieving the 95 % target is set as in the ELV Directive for 2015.

In Sweden, free of charge handing-in is specified for all cars that were released on the market after 1 January 1998 compared to 1 July 2002 in the ELV Directive. This free of charge handing-in will be extended to apply to all cars from 1 July 2001, whereas the EC directive specifies that this shall apply no later than 1 January 2007. In practice, the free of charge handing-in has applied, in all important respects, to all cars in Sweden since 1975⁹⁵.

There has been no enforcement action against Sweden regarding the ELV Directive.

Implementation of free take back

The Car Scrapping Law (SFS 1975:343) and the Car Scrapping Ordinance (SFS 1975:348) were enacted in order to regulate the problems that had been observed of end-of life vehicles being abandoned in the countryside. At the same time, a charge was levied when a new car entered the Swedish market. The charges were collected in a non-interest fund known as the Car Scrapping Fund that was under State control. The Fund was then used for paying scrapping premiums in conjunction with the end of-life car being handed over to an authorised car dismantler who has the right to issue a scrapping certificate. In practice, the scrapping regulations of 1975 were an economic producer responsibility for the car industry.

The Ordinance on Producer Responsibility for Cars (SFS 1997:788) extended the producer responsibility for new cars entering the market after 1 January 1998 and introduced a replacement for the conventional deposit-refund system. The system is intended to be self-financing – the scrapping fee that is paid by the first owner is supposed to cover expenditure for the premium that is paid to the car's last owner. The ordinance required that the manufacturers and importers should take the responsibility for financing the treatment, and also ensured that a system was established that took care of end-of life cars, regardless of their age. At the same time, the principle was retained that cars that came on the market before 1998 would be financed by charges on new cars.⁹⁶

Sweden experienced some problems when it increased the scrapping premium from 500 SEK to 1500 SEK (around €58 to €174). From the end of the year 2000, six months before the introduction of the new system, there was a drop in the number of cars being scrapped. Several vehicle dismantling companies tried to cash in on the increased premiums and illegally postponed the scrapping of cars.⁹⁷ When the premium increase began to take effect, the number of cars being scrapped showed a marked increase. A month or so after the premium was changed, the level went down but the number of scrapped cars still remained at a higher level than in the years prior to the premium increase. In total, this meant that during the full year 2001, almost twice as many private cars were scrapped as in the previous year.

⁹⁵ Lindhqvist, T (2001). *Extended Producer Responsibility for End-of life Cars – Analysis of Effectiveness and Socio-economic Consequences*. Study for the Producer Responsibility Investigation on the Instructions of BIL Sweden. Lund: HIEE, Lund University.

⁹⁶ Lindhqvist, T (2001). *Extended Producer Responsibility for End-of life Cars – Analysis of Effectiveness and Socio-economic Consequences*. Study for the Producer Responsibility Investigation on the Instructions of BIL Sweden. Lund: HIEE, Lund University.

⁹⁷ *Naturvårdsverket (2002), Samla in, återvinn! Uppföljning av producentansvaret för 2001, men också mycket mer...*, Rapport 5237, June 2002

Scrapping remained at this level through 2002. In 2003, the number of cars scrapped went down somewhat but remained at a level that was higher than the years prior to the change in premium.⁹⁸ As a consequence of the above problems the supervision of vehicle dismantling companies has been strengthened by a combination of measures. The municipalities were given a supervisory role over the Vehicle Dismantling Ordinance, which they had not had previously. More and more municipalities started also conducting supervisory campaigns directed at vehicle dismantling companies.⁹⁹

Although the fund pays for the scrapping, the transport costs of the car to any collection points/scrap yards remain the responsibility of the car owner. During the consultation period, several stakeholders voiced their concern that long transport distances would lead to even more cars being abandoned in the countryside.

Note that a recent Government Proposal recommends the abolition of the scrapping fund and the premium, due to the increase of abandoned cars. This Proposal is discussed in greater detail under the "Other issues" heading.

Implementation/achievement of recycling targets

The proportion of reused, recovered and recycled ELVs was in 2000 as high as

83 %.¹⁰⁰ The target of 85 %, set by the Swedish legislation, was almost achieved for 2002, with the proportion being just over 84 %. For 2005 the proportion reached 85 %. The calculations are based on information from a 27 % proportion of all cars scrapped in Sweden. This information is provided by Bil Sweden's network.

The formula for calculating the reuse, recovery and recycling rates in Sweden differ slightly from that set by the ELV Directive. The main difference is the way the weight of petrol is calculated and hence the Swedish formula overestimates the proportion by 0.5 %.¹⁰¹

Other issues

A new Proposal regarding ELV and producer responsibility has gone through the consultation stage and was submitted by the Government to the Council of Legislation on 30 November 2006. The Proposal will remove the Car Scrapping Fund and clarify producer responsibilities. According to the Explanatory Memorandum to the Proposal the numbers of abandoned cars in the countryside and along roads increased significantly from around the time of the scrapping premium increase in 2001. It is assumed that this has been a consequence of the car acceptance fee for scrapping being often as high as the premium, such that there is no longer a positive economic incentive to scrap cars according to the prescribed procedure. Because the premium is no longer working as intended, the Proposal suggests abolishing the fund by May 2007. The remaining money in the Fund will be allocated for the fees for scrapping car models without catalysers, which are older than 1989 and for some other uses (abandoned cars collected by the municipality, funds for campaigns etc.).¹⁰²

⁹⁸ Naturvårdsverket (2004), *Styrmedel för ökad skrotning av gamla bilar*, Rapport 5415, December 2004

⁹⁹ Naturvårdsverket (2003), *Samla in, återvinn! Uppföljning av producentansvaret för 2002*, Rapport 5299, June 2003

¹⁰⁰ Naturvårdsverket (2003), *Samla in, återvinn! Uppföljning av producentansvaret för 2002*, Rapport 5299, June 2003

¹⁰¹ Naturvårdsverket (2006), *Samla in, återvinn! Uppföljning av producentansvaret för 2005*, Rapport 5599, July 2006

¹⁰² Council of Legislation (2006), *Bilskrotningsfonden m.m.*, The Government, 30 November 2006

UNITED KINGDOM

Introduction to ELVs in the UK

1. Vehicles and Disposals

In the UK in 2005 there were 26,208 thousands cars and 3,019 thousands light duty vehicles. There are 36 main vehicle manufacturers selling in the UK and 9 main vehicle producers operating in the UK¹⁰³. In addition, there are around 150-200 small volume vehicle producers in the UK, many of which will be affected by some, or all, of the requirements of the Directive. It is estimated there are some 7,000 vehicle component manufacturers in the UK.

Approximately 2 million vehicles are scrapped in the UK each year: there is however as yet no official data on the number of vehicles that is disposed of every year in the UK. The latest data available are estimates produced by the Automotive Consortium On Recycling and Disposal (ACORD) and by consultancy TRL for the Department of Environment, Food and Rural Affairs (DEFRA). The latter estimated the number of ELVs at 2,045,993 in 2001.

Table 7 - Estimates for historic ELV arising in the UK

Source of Estimate	1997	1998	1999	2000	2001
ACORD	1,900,000	1,800,000	1,800,000	2,017,137	n/a
TRL	1,700,068	2,232,487	1,749,876	2,109,967	2,045,993

Source: RIA, 2005¹⁰⁴

In 2000, 238,000 ELVs were abandoned (Department for Transport (DfT) estimates). In the following two years abandonments rose dramatically, due to the low price of metal and high costs of scrapping, as previously the system had relied on the fact that the scrap value of a car was high enough to make proper scrap page economically viable for dismantlers. It has been argued that in these circumstances owners of ELVs produced before 2002 (as such not included in the first phase of free take back (Art. 12)), were forced to this by the absence of an interim support system to avoid this phenomenon¹⁰⁵. These numbers are deemed to have considerably decreased since then, however, due to the higher price of scrap metal, the existence of a clearly defined network for collection and, only recently (from 1 January 2007), to the introduction of free-take back (see further). The estimates of ELVs abandoned in 2006 are of approximately 65,000 vehicles¹⁰⁶.

¹⁰³ Regulatory Impact Assessment of End-of-Life Vehicle Directive, 2005

¹⁰⁴ <http://www.dti.gov.uk/files/file30647.pdf> p. 7. TRL data are more accurate as they exclude exports, car stolen and unrecovered vehicles. The estimate is calculated with the following methodology: *Estimated ELV arisings in Year X = (Vehicles licensed at end of Year X-1) + (New vehicle registrations in Year X) – (Vehicles licensed at end of Year X) – (Exports of vehicles in Year X) – (Vehicles stolen and unrecovered in Year X)*.

¹⁰⁵ Fergusson M. and Skinner I., *The Implications of UK implementation of the ELV Directive*, Institute for European Environmental Policy, January 2003.

¹⁰⁶ Cartakeback, <http://www.cartakeback.com>, 2007

Table 8 - Cars abandoned in England and in the UK, 2000 – 2006 (thousands)

Geographic Coverage	2000/2001	2001/2002	2002/2003	2003/2004	2004/2005	2005/2006
UK	238	290	310	233	n/a	n/a
England	224	284	292	221	149	126

Source: Department of Trade and Industry (DTI), personal communication 2007

Note: UK=England+Scotland+Wales+N.Ireland

2. Implementation Arrangements

The Department of Trade and Industry (DTI) leads on implementation of the majority of the ELV Directive, while Defra leads on the implementation of Art. 6, on the permitting of treatment facilities. Since 1 February 2004 all treatment facilities should hold a new permit that will allow them to operate on the basis of the minimum technical standards required by the Directive on an equal footing. The Environment Agency (England and Wales), the Scottish Environment Protection Agency (Scotland), and the Environment and Heritage Service (Northern Ireland) are the authorities which enforce recovery and recycling obligations from 2006 and monitor ATFs¹⁰⁷ activities.

The DTI services the register of producer marque and vehicle declarations, and assesses producers' network plans. By 1 April 2007 producers and authorised treatment facilities (ATFs) with recovery obligations are currently required under the UK Regulations (see below) to send to DTI a Certificate of Compliance, confirming achievement of their target for 2006, and reporting the recovery rate achieved. Car manufacturers that have contracted one or both of the two main service providers, Autogreen and Cartakeback, will get from these the ATFs certificates of destruction (CoDs) and the reporting on marques of vehicles (DTI, 2006).¹⁰⁸ From this reporting, the DTI will derive the data relative to the recovery targets set by the Directive: therefore official up to date data will not be available before early summer 2007 (see below).

The UK Regulations are clear that all information and reporting requirements under Art. 9 of the Directive are with the producer or with ATFs, (in respect of ELVs for which they do not have a manufacturer's contract) (Art. 20).

Transposition of the Directive

The UK has transposed the Directive through its ELV Regulations in 2003 and 2005. Like many other countries it was late in doing so. In 2003, the European Court of Justice condemned the UK (Case C-277/03) for non transposition of the Directive by the time required (21 April 2002) and condemned the UK government to pay the costs of judgement.

The 2003 Regulations put in place most of the requirements of the Directive. The remaining provisions were the subject of the 2005 Regulations (in force by March 2005) which set out the requirements for vehicle producers to have available networks of facilities where last owners of their brands of vehicles could take their ELVs for treatment.

¹⁰⁷ Authorised Treatment Facilities (or ATFs) are sites licensed by the Environment Agency in England & Wales, the Scottish Environment Protection Agency in Scotland or the Environment & Heritage Service in Northern Ireland, to de-pollute end-of life vehicles to standards set by DEFRA. Only these sites are permitted to issue last owners with a Certificate of Destruction (CoD).

¹⁰⁸ DTI (2006), Recovery Targets in the End-of Life Vehicles (Producer Responsibility) Regulations 2005, December 2006, <http://www.autogreen.org/default.asp?p=marketing>

The regulations apply to end-of life vehicles which are in class M1, N1 and three wheeled vehicles as defined in Directive 92/61/EEC.

Implementation of free take back

Although the *The End-of life Vehicles Regulation 2003*¹⁰⁹ gives responsibility to producers to take back cars put on the market from 2002 (art. 39), in fact, only with the *End-of life Vehicles Regulation 2005*¹¹⁰ (art.7), a date was set from which producers would be responsible for all vehicles placed on the market. This defines the producers' responsibility, which includes the take back, treatment, re-use, recycling, recovery and disposal of vehicles they have declared responsibility for, or are assigned responsibility for by the DTI.

As far as the free take back is concerned, the UK Government decided to use the flexibility left by the Directive in deciding how to fund take back and treatment between 2002 and 2007. Free take back provision has been in force since 1 January 2007 (Art. 12 reg. 2005), while, until 2007, the 'last owner' of the vehicle continued to have responsibility for the costs of disposal of the ELV.

The *End-of life Vehicles Regulation 2005* introduces the framework for the achievement of producers' responsibility: producers will need to contract with a network of Authorised Treatment Facilities (ATFs), and with the reprocessing and recycling industries. Each producer's network is to be approved by the DTI to ensure adequacy and accessibility of ATFs to last holders/owners. On the latter, the UK introduced a very strict parameter for which 75 % of last owners should be within 10 miles on average of the nearest ATF, and no one should be more than 30 miles distance (or else free take back from the home applies)¹¹¹. This provision is one of the stricter in the EU; it is meant to guarantee a tight network of ATFs on the territory, particularly in highly-populated areas. Indeed, from approximately 650 licensed treatment facilities in 2003, the network has grown to approximately 1,400 by 2006 (ACORD, 2007). Car manufactures contracted two service providers (Autogreen and Cartakeback) to ensure the network complies with the information and recycling obligations, and to act as an interface on the information requirements between the individual ATF and the DTI. Treatment facilities channel through the service contractors the Certificate of Destruction (CoD), which is issued by the DVLA to prove that a vehicle has been scrapped in a lawful and environmentally sound manner, and counts for the annual target for recovery of the car producer.

Producers will be responsible for the costs in relation to the number of vehicles they have put on the market and will put on the market in the future and arise as ELVs in the UK. ATFs who accept ELVs outside of a producer contract will be able to make a free market decision on whether they take such ELVs or not.

¹⁰⁹ The End-of life Vehicles (Producer Responsibility) Regulations 2003 (no. 2635).

¹¹⁰ The End-of life Vehicles (Producer Responsibility) Regulations 2005 (2005 no. 263).

¹¹¹ In remote areas where this is not possible, one service contractor (Cartakeback) has established collection points to which vehicles can be delivered for onward transportation to an Authorised Treatment facility for de-pollution.

Implementation/achievement of recycling targets

Since the *The End-of life Vehicles Regulation 2003* the regulating agencies have issued around 1,400 licences to Authorised Treatment Facilities (ATFs). The Agencies are currently ensuring that all facilities are licensed. During this process many fines have been issued as indeed there are many other operators on the territory (i.e. the estimated number of operators was around 2,500 in 2003, including dismantlers, salvage operators, scrap yards, and secondary metal merchants dealing with ELVs, and many of these were small operators who had not hitherto had to operate to demanding environmental standards. Also there were an additional 500 to 800 sites operating illegally) (RIA, 2005).

However, ACORD reported to us that the number of CoDs gathered in the first nine months of statutory target period have been much lower than expected. The UK Liberal Democrats environment spokesman in the European Parliament, Chris Davies, explained this by arguing that Britain's 1,200 authorised treatment facilities would issue about 500,000 CoDs in 2006, while the remaining 1.5 million ELVs would be dismantled without the facility producing the only document that guarantees the sound treatment of the ELV.¹¹² This is apparently due to a lack of implementation by the Driver and Vehicle Licensing Agency (DVLA) that apparently allows last owners to tick a box on their vehicle deregistration form to state that they have scrapped their car themselves, but without requiring the certificate. There is however evidence that the responsible Agencies are now working to prevent operation by all non licensed facilities, and DVLA is considering whether the alternative means of notification should be withdrawn.

As regards ELV recovery, in 2000, the TRL Report for Defra estimated that ELVs' material re-use and recovery was 77 %. Again, for 2000, ACORD estimated that 69 % of materials from ELVs were recycled, and 11 % of parts from ELVs were re-used.

Using data from the UK Shredder Trial Report, and from the Government/ Industry Used Tyre Working Group and ELV Consultation Group, the DTI estimated an indicative ELV recovery figure for 2004. These estimates are expected to remain similar for 2005, but may be challenged by the wealth of data on actual recovery which should be produced by April 2007 (see above). However, these data will still be incomplete and may not be fully representative of the entire ELV fleet.

Table 9 - ELVs recovery percentages in the UK in 2004 (%)

Parts of ELV recovered	%
Metallic content re-used and recycled	75
Fuels re-used	1
Tyres re-used, recycled and recovered	2
Non-metallic parts re-used and recycled	2
Oils/fluids removed during depollution and recovered	1
TOTAL	81

Source: DTI, 2007.

¹¹² <http://www.letsrecycle.com/materials/metals/news.jsp?story=5992>

An estimate (RIA, 2005) states that the 2015 target of 95% will be hit through energy recovery (combustion) of non-metallic materials, which is going to be an option equivalent in terms of costs to that of landfills.

During 2006, the DTI produced guidelines for producers to report their compliance on the recovery targets for 2006. The DTI is expecting producers and ATFs with recovery obligations to send their certificate of compliance before 1 April 2007. Using the results of a 2005 shredder trial, the DTI established that the average weight of an ELV is 971 kilograms; 76% of that average weight, comprising the metal fraction and residual fuel, could be assumed to be recovered (that is, to re-use, recycle or recover energy from) automatically. This percentage is not subject to check as it is considered already economically sustainable for operators to reach it. Therefore the DTI is asking producers to obtain evidence of recovery only for the 9% left off the recovery and recycling target (around 87 kgs per ELV, from the non-metallic fraction). Obligated businesses should provide evidence of the following (DTI, 2006):¹¹³

- re-use of non-metallic parts (e.g. seats, part-worn tyres, windscreens, bumpers, fuel etc);
- recycling of non-metallic materials (e.g. plastics, glass, rubber, tyres, textiles, fluids etc);
- recovery of energy (up to a maximum of 5%) from non-metallic materials, including automotive shredder residue; and
- reuse or recycling of metal in addition to the 76% assumption explained above.

Producers and ATFs claiming reuse activity must retain sales data for inspection by the regulator, in a form which will enable him to identify the component. It will be for producers and service providers to ensure that their contracted ATFs allocate re-used parts to marques appropriately. Regarding recycling of non-metallic materials, DTI suggest to retain the system whereby ATFs use the notes for which they are bound under duty of care legislation on detailing tonnages of material they have passed to licensed or registered exempt businesses recycling or reprocessing waste oils, fluids, glass, rubber, plastics, and textiles reprocessors. The same transfer notes should be retained by the latter. Those fractions of non-metallic ELV waste which are hazardous (e.g. drained oils) will be subject to the consignment, movement and recording arrangements as set down in the 2005 Hazardous Waste Regulations, which will similarly provide an audit trail. It should be noted that businesses handling ELV waste may be subject to periodic inspection, under the mechanisms that already exist under the Duty of Care regime, to ensure that the required controls are in place.

Other issues

Regarding the phase out of the use of heavy metals in the manufacturing of vehicles, the UK used the flexibility allowed by Annex II of the Directive. ACORD pointed out that there is a controversial issue in the Directive: that of vehicles produced before the regulations were exempted from this ban until 1 January 2007. This, it is argued, will make replacement parts problematic, and thus creates an indirect driver for more and premature scrapping, where banned spare parts are no longer available.

¹¹³ To simplify the gathering of evidence relating to non-metallic parts re-use by ATFs, the DTI created a 'most popular components' weight data base available here (see Annex I, DTI, 2006)
http://www.autogreen.org/default.asp?p=marketing&news_id=20

OVERALL CONCLUSIONS

Background of the General Situation

1. *Cars and Car Markets*

Particularly in Western Europe, car ownership levels are high, giving rise to car fleets numbering tens of millions in the larger Member States. Equally in such states, there may be a requirement to dispose of several million end-of life vehicles each year. Owing to the relatively high levels of disposable income, fleets include a significant proportion of large and luxurious cars, and on average, the car fleets are quite young -- typically less than 10 years as the average age.

The situation is rather different in most of the EU-10. Here, car ownership levels are typically significantly lower, although in most countries they are increasing rapidly towards those already experienced further west. Also, the average age of cars is much older, with cars kept on the road through repeated repairs and the use of second-hand parts from scrapped cars. New car sales are also increasing, but the fleet is also being augmented by imported second-hand cars, many of them from Western Europe. Another feature that is relevant to the requirements of the ELV Directive is that there are still significant numbers of cars manufactured by companies that operated in the former socialist bloc, and that are now defunct. Taken together these represent significant legacy issues for the new Member States, which were arguably not anticipated when the legislation was first conceived.

Car manufacturing is an important element of the European economy in general, and is particularly important in a number of Member States, such as Germany, Belgium, France, Italy, Sweden, Poland and the Czech Republic. Such countries tend to be particularly keen not to impose excessive costs upon their car manufacturers, for example through implementation of the ELV Directive.

2. *Car Scrappage*

The quality of statistics on car scrap page is extremely variable across Europe, although there are signs that the Directive itself is beginning to bring about some improvements in this. In some countries, though, it is not yet even possible to estimate precisely how many end-of life vehicles are being scrapped each year. It is clear, however, that even now, in many of the EU Member States, by no means all older cars are disposed of as prescribed under the Directive:

- Export of second-hand cars before they reach their end of life is an important (and possibly growing) feature of the car market in most of the continental members of the EU-15. The EU-10 countries appear to be the principal recipients of these cars and will in turn have to dispose of them in due time. Some second-hand cars are taken even further east, and there are reports of exports outside of Europe as well.
- Although it is difficult to provide firm evidence of such activities, it has been reported that the legitimate second-hand trade masks some illegal activities, such as the export of wrecked cars for recycling outside Europe. This practice is illegal, as end-of life vehicles should be classified as hazardous waste and handled accordingly. It is also suggested that many stolen cars are moved across national frontiers and replated, in order to better avoid detection.

- Equally, it is clear that in countries that do not have a strong licensing or enforcement system, a significant number of cars are being scrapped by unlicensed operators who remove the economically desirable parts of the wreck -- notably the scrap metal -- but may dispose of the other materials illegally or in environmentally-damaging ways, and certainly not as prescribed in the Directive. This is still cheaper than following the terms of the legislation, so there is an economic incentive to take only what is profitable.
- Some cars are still abandoned rather than properly scrapped, although the rate of abandonment varies considerably from country to country, possibly reflecting in part the rigour or otherwise of legal controls, vehicle licensing and the registration arrangements. It is not always clear in what way abandoned vehicles are dealt with and disposed of, if at all.
- Some end-of life vehicles are ‘garaged’ rather than scrapped, particularly in countries where suspension of vehicle licensing is allowed. Such vehicles may be partly used for spare parts for other vehicles or simply left on private ground. Part-dismantling can in turn compromise the possibilities of scrapping them completely. There are reported to be significant numbers of such vehicles in some countries, and these appear to be storing up problems for the future.

In most cases, it should be stressed that these practices predate the implementation of the ELV Directive and were not therefore caused by it. It is reasonable to suppose that, by imposing additional requirements and hence costs, the Directive might have led to an increase in such practices, whereas conversely, a general tightening of the conditions surrounding car scrap page might (assuming it is accompanied by effective controls and enforcement) be expected to lead to a reduction in informal or illegal practices. In reality however, little evidence was found that either of these effects has taken place to any great extent. The requirement to provide free take back, where properly implemented, does however seem to have led to some improvements in the disposal of old cars in some cases. Furthermore, a significant increase in the price of scrap metal since the time that the Directive was first proposed has improved the economics of car scrap page.

It is also clear that the nature of pre-existing arrangements for car scrappage and for waste disposal in general has a strong bearing on the way in which the Directive has been implemented, and the degree of success or otherwise of these arrangements. For example, in some countries, car disposal was already highly regulated, and/or handled through large waste handling facilities at the municipal level. Elsewhere, the process has been handled rather more informally and in a more decentralised way, with less prior regulation. Often in these cases there are a large number of small operators, including some illegal ones, and it has proved difficult either to bring these up to the required standards to be able to carry out safe disposal within the terms of the Directive, or alternatively to prevent them from practising.

General Implementation of the Directive

A small number of countries with a good level of resources, effective administrative systems, and early experience of operating a highly regulated system of car disposal, have been able to implement the directive relatively smoothly. The Netherlands and Sweden are good examples in this respect, with Sweden having enacted its first car scrappage law in 1975, and implemented producer responsibility from 1998. Germany and Austria also approached implementation in a systematic and quite timely way.

Many, however, have experienced significant difficulties, delays and setbacks in implementing the Directive. Reflecting this, the Commission has taken some form of legal

action against most of the EU-15 Member States in relation to this Directive, in particular for late implementation. In Ireland, for example, the requisite legislation was only enacted in 2006. Some have also been taken to task for not fully reflecting the scope of the Directive, for example by not applying it to three-wheeled vehicles. Even the Netherlands, which enjoyed perhaps the smoothest introduction of the new system, suffered legal proceedings relating to two technical points, while Italy had to adjust quite a number of different aspects of its original legislation. Such legal actions have been common amongst the EU-15 States as late as 2006, although many have now been dropped in response to Member States' implementing or amending their legislation. The EU-10 has experienced additional problems as outlined below.

There are a number of reasons that have contributed to these problems and help to explain the particular difficulties being experienced. Some of these are inherent in the complexity of the tasks required, and some arise from the specific terms and requirements of the Directive.

- Waste disposal arrangements vary significantly in detail and in effectiveness from one state to another. Many of these arrangements date back many years, and were not originally designed to meet modern requirements, including those of EU directives such as the ELV Directive;
- The Directive sought to make producers responsible for the cost to take back their products, not only for those yet to be put on the market, but also for those already on the market. The latter proved particularly controversial and was strongly opposed by the carmakers. The Directive also did not specify how the disposal of these cars would be funded during the transition period of 2002-2007. In a few countries such as the Netherlands which made sensible and advance provision to build up a fund that would cover the cost in these cases, few problems were experienced, but elsewhere, there have been significant disagreements over costs and who should pay them;
- The requirements of the Directive, although arguably very necessary, have increased the cost of car disposal, for example by requiring significant upgrades to the facilities of many car breakers, and requiring levels of reuse and recycling that will force all countries to go beyond the recycling of scrap metal, which was generally economically viable, and to begin to address recycling of other materials, combustion of certain wastes with heat recovery, etc;
- Administrative arrangements have also been complex in a number of respects. For example, some of the requirements of the Directive require the establishment of national systems or standards, whereas waste management is often the responsibility of the regions in federal countries, or of municipal authorities in others. In Sweden and some other countries, the main reporting and monitoring requirements rest with the national EPA; in other cases such as Ireland, these rest with local authorities. Hence questions of overlapping competencies have arisen. Furthermore, in some countries, strict environmental standards and licensing requirements have been imposed on car dismantlers and scrappers for the first time, and this has been demanding in terms of resources for inspection and administration;
- Furthermore, in most states the requirements for reporting and for certificates of destruction have required whole new systems, procedures and administrative structures to be put in place. Where governments have imposed a central clearinghouse body to handle these new arrangements, the systems appear to have been developed quite smoothly; but elsewhere, things have often gone less well. Also, the new requirements have had to be linked in to existing vehicle registration systems, and this too has caused some difficulties;

- Car manufacturers had not had hitherto to regard the disposal of their products as a part of their core business, and this was a significant adjustment. Where a clearinghouse authority was established to mediate between manufacturers and dismantlers, things appear to have gone relatively smoothly. Elsewhere, however, manufacturers have clearly struggled to get to grips with understanding the diverse waste management system of 25 different Member States, and in negotiating with dismantlers and waste handlers;
- Countries from the EU-10 have experienced particular difficulties arising in part from specific aspects of their car fleets and historic disposal arrangements, but also from their relatively recent adoption of the *acquis communautaire*. More generally, those countries that do not have a high level of administrative resource in the relevant areas have found it particularly difficult to implement this complex Directive effectively;
- As noted above, there are a number of routes to the disposal of a vehicle, some legal, and some not. Where the Directive requires extra procedures and incurs extra costs in disposal, then there is an obvious disincentive for full compliance, and additional enforcement action is needed to ensure that more cars do not fall out of the system. Also, the new administrative procedures have sometimes contained ‘loopholes’ that allow some of the requirements of the Directive to be circumvented. It is clearly still possible in a number of countries to secure the deregistration of a vehicle without obtaining a certificate of destruction, which is one of the central requirements of the Directive. In the UK, for example, most of the requirements of the Directive now appear to be in place, yet reportedly only a quarter of ELVs actually received a certificate of destruction prior to deregistration in 2006.

Most of the difficulties listed above are real enough, but capable of being overcome given sufficient time, effort, and resources. In many cases there is evidence that delays and problems are of a transitional nature, and can and will be solved in due time. Indeed, there is evidence from many areas that the problems have already been or are being addressed, both in the transposition of the legislation itself, and in its implementation. More specifically, where figures are available they do generally show progress towards the reuse, recovery and recycling targets, as discussed below.

Free Take-Back

In most Member States, the central requirement for free take back has been implemented, improving conformity with the Directive’s standards and encouraging last owners to deliver their cars for disposal. In countries that have developed a dense network of authorised takeback facilities and have effective enforcement, this appears to be developing quite effectively.

Elsewhere, it can still be more economically advantageous to use unauthorised facilities that can sell on the useful parts of the ELVs (principally spare parts and scrap metals), but do not incur the cost of carrying out proper recycling or recovery of other parts. This gives rise to additional waste and potential environmental hazards and can only be overcome by improved enforcement and/or improved facilities to recycle or recover additional materials such as glass, plastics and tyres.

In some cases it was observed that certain administrative charges were being levied, and hence that take back was not completely free as it ideally should be. It was further argued that transporting a vehicle to a disposal site could incur a significant cost for vehicles unable to be taken to the site under their own power. In only a few countries does it appear that such transport costs for disposal are also covered under free take back; elsewhere this may remain a barrier to complete take-up.

On a related matter, the density of the disposal network appears at this time to vary very substantially from country to country. To some extent this reflects different levels of ambition in different Member States, but also may in some cases be a question of transition where implementation has been slow, and networks are still being built up and new sites licensed. The UK, for example, has specified that most people should be less than 20km from an authorised disposal site, and that transportation costs should be reimbursed to those beyond a specified distance threshold.

Some states, including Germany and Austria, originally confined the take back obligation to vehicles registered under their own national registration systems, but the Commission complained that this was incompatible with the principles of EU law, and the provisions had subsequently to be widened to cover take back of cars registered in other countries.

The fact that scrap metal prices are currently very high is an important component of the overall financing of vehicle disposal, but other requirements of the Directive (ie for additional recycling and recovery, and for safe disposal of hazardous materials) generally incur cost that requires cross-subsidy if it is to be carried out in conformity with the Directive. In some countries major new recycling and recovery facilities have required investment, and this has to be recovered through the system, thereby incurring extra costs.

A few countries established central funds through charges on new cars, on second-hand imports, or directly on producers and importers, and these have been able to finance proper disposal within the terms of the Directive with few problems. In general, the financial arrangements between the various actors appear to have worked well when there is an established clearinghouse organisation to handle the flow of payments and documentation. In Sweden and the Netherlands, scrappage is funded by a charge applied to all new cars, and this avoids the expense falling upon the final owner, the producer, or the dismantler. This appears in many respects to have been the most effective solution and arguably the most equitable system, although Sweden is now planning to move away from this approach.

Elsewhere, some attempts were made to establish centrally-organised networks, but these often failed owing to disputes over sharing of costs. Where no such arrangements exist, manufacturers have had to enter into private contracts with take back and treatment facilities. These are commercially confidential and complex, and therefore not transparent. Hence little further information can be provided in these cases.

Disputes over the level of charges and costs have been reported in several countries, with car manufacturers questioning the level of costs charged by the disposal sites and dismantlers. In Ireland, a fixed levy has been established for each vehicle dismantled, and producers are charged a further annual fee to cover local authority administration costs. A number of countries have now established a fixed fee rate, but others have not, and fees vary from country to country. In other cases, these costs are a private transaction between producers and dismantlers.

During the transition period, there has been a particular difficulty over who should bear the costs of cars already on the roads before 2002. In countries which had existing funds to handle disposal of end-of life vehicles, this appears not to have been a problem. Elsewhere, though, manufacturers have been extremely resistant to incurring extra costs prior to the date on which this was made mandatory by the Directive, and in such cases, final owners continued to have to bear any costs during the transition period. Fortunately, a sharp rise in the value of scrap metal over this period helped to offset such costs.

Implementation and Achievement of Recycling Targets

1. *Achievement of Targets*

Although the first set of reuse, recycling and recovery targets relate to 1 January 2006, it is still too early to draw definitive conclusions as to whether these targets have been widely met or not. That is, the many countries that implemented the Directive rather late still do not have reliable reporting systems in place to allow firm conclusions to be drawn as to the percentages of material that are being reused or recovered in some way, and even those that are more advanced are likely to experience some delays in assembling definitive data. In Germany, for example, final figures for 2006 will not be available until next year, and this will be the first reporting period under the Irish legislation. Furthermore, in countries where only a relatively small proportion of vehicles are being scrapped fully under the aegis of the Directive and have received a certificate of destruction to prove it, the data available have to be regarded as selective and not fully reliable.

Sweden and the Netherlands already reached the 85 per cent target for reuse and recovery in 2005. In the Netherlands too the reuse and recycling targets had already been met by 1997; but these are very much the exceptions. Belgium appeared to have met the 80 per cent per cent reuse and recycling target in 2005, but appears unlikely to reach the 85 per cent reuse and recovery target completely.

Nonetheless, some general conclusions can be drawn. A few of the countries that had made an early start in implementing strong targets for cars are on track to meet the reuse and recycling targets, but most fall somewhat short. By weight, it is possible to get a long way towards the reuse and recycling target simply by recycling scrap metal parts of a vehicle effectively, particularly the iron and steel, which is in any case economic to do. Hence the appears likely that a number of other countries will have met the 80 per cent per cent reuse and recycling target in 2006 or soon after.

However, further efforts are needed in order to reach the reuse and recycling targets in full, typically including greater efforts to recycle glass, plastics and other materials. Only a few Member States have so far implemented such systems, though more are now seeking to do so. It appears, however, that there is little or no market for some of these recycled materials. A few are also considering more advanced systems to sort through the light shredder fraction and ‘fluff’ that remains after the main recyclable components had been dismantled.

European car manufacturers association ACEA also reports that there are potential problems with the tight definitions under the Waste Framework Directive that might prevent some uses of shredder residue (i.e. in blast furnaces) as counting towards reuse and recovery targets. In this case it will be very difficult in some countries to meet the 85 % target¹¹⁴.

There is also anecdotal evidence that significant quantities of fluff are now being exported to developing countries, notably China, for further sorting and recycling. Such activity takes advantage of the extremely low costs of sea container traffic from Europe to China, since most containers would otherwise return empty, and also the much lower labour costs in China. This allows a level of manual processing that would not be at all economic to do in Europe.

The reuse and recovery targets are also proving challenging in almost all Member States, with few likely on current trends to reach the target, although some others will come close. Some are now looking actively at the possibility of incineration with heat recovery of parts of the post-shredder waste stream in order to comply.

¹¹⁴ Personal Communication from ACEA representative

A number of countries have not yet had systems in place long enough to have produced any meaningful official results of recycling rates, although other data from trade bodies may be available. Furthermore, in countries where only a relatively small proportion of vehicles are being scrapped fully under the aegis of the Directive, and have received a certificate of destruction to prove it, then clearly what data are available will have to be regarded as selective. In countries that have not yet got an effective system in place, it is reasonable to assume that the recycling targets will not be fully met.

2. *Data Quality and Availability for Recycling Rates*

In most countries, some data were already available prior to implementation of the Directive through recycling associations, for example. This applies most obviously to scrap metals, which make up the majority of an ELV by weight. Other data were less readily available, and are only developing in a reliable way where new reporting obligations have been imposed on producers and/or disposal operations.

In many cases reporting is still incomplete. This is sometimes due to late implementation or incomplete coverage, but elsewhere, complex new electronic systems have been needed to track the various waste components effectively owing to the complexity of modern cars. Also some elements of the disposal routes appear inherently difficult to report accurately, such as heat recovery operations.

For all these reasons, reported data need to be supplemented through various estimation techniques by national authorities. As against this the level and quality of reporting seems overall to be improving over time.

Particularly where significant numbers of ELVs are still being disposed of outside of the terms of the Directive, whatever figures are available can only be estimates, and are almost certainly not representative of the ELV fleet as a whole.

Other Issues

The Directive requires the Member States under Article 8 to ensure that component and material coding standards are pursued. However, the little information available on this issue suggested that this requirement in particular has not advanced greatly in most countries.

The bans on the use of certain materials are generally in place, but pose specific problems with repairs to older vehicles. This is because the bans also apply to cars where the banned materials were used originally, but the materials and thus spare parts may no longer be used even for repair purposes. Other reported problems appear relatively minor, and significant complaints or resistance to the bans were not reported in the case studies.

However, it is most likely that the ban is not respected by operators who dispose of vehicles illegally, and as noted, this still occurs frequently in some countries.

Wider Implications

Cars represent the most expensive, and probably the technically most complex of all consumer appliances in common use. They are also extremely numerous and ubiquitous across Europe. In this sense, it is perhaps not surprising that many technical difficulties have been experienced in applying much higher standards of disposal and recycling to such an important waste stream. Further problems have been encountered in imposing the cost of this exercise upon the producers, in part retrospectively.

Vehicles are in principle highly regulated, for safety and other reasons. Besides, they have to be registered, taxed, and ensured in all countries. With this in mind, it is sobering to reflect on how many difficulties have been encountered in seeking to impose a regime of safe and sustainable management on end-of life vehicles, and a degree of producer responsibility. It can be concluded that as many problems, or possibly more, will be encountered in efforts to improve the reuse, and recycling and recovery of materials from other waste streams, most obviously under the WEEE Directive.

Nonetheless, a high level of preparation, as well as an adequate level of administrative resources and efforts towards licensing enforcement, help the implementation of the required regulations and directives. State involvement in setting up some sort of agency to mediate between producers and disposers also seems to lead to positive results.

ANNEX I: SAMPLE QUESTIONNAIRE FOR CASE STUDIES

The key issues that the Parliament wants us to focus on are the arrangements and implementation of the free take back systems (e.g. to address the issues raised in c), below) and progress towards achieving the reuse/recovery/recycling targets for 2006 (as in d)). It would also be good, however, to have some general background information for the country and information regarding the transposition of the Directive (a) and b)). Finally, there may be other issues that arose in the course of the project and hence I have mentioned a number of other aspects of the Directive (e)). So the issues that I would like you to cover are:

- a) **Introduction to ELVs** - Could you provide an overview of the situation in the country, to include:
- Actors, e.g. does the country have any major manufacturers of cars or their components; or does it import most of its cars?
 - Size of car/van fleet; number of cars/vans scrapped (for 2005, or most recent year)
 - Are second-hand cars/vans either imported or exported in significant numbers? If so, please give any available indications as to the numbers of these second-hand cars/vans and their sources or destination countries?
 - Has there been any evidence of illegal dumping of ELVs in the Member State, or illegal exports from the Member State that might be linked to the implementation of the Directive?
 - Who in the Member State has been made responsible for the reporting requirements set out in Article 9(2)? Are there any systems in place to check the quality of the data, particularly in relation to meeting the reuse/recovery/recycling targets?
- b) **Transposition:** *Article 10(1) required Member States to have implemented the Directive by 21 April 2002 (new Member States by accession)*
- When did legislation to implement the Directive enter into force?
 - Does the legislation cover light commercial vehicles (N1 vehicles) as well as passenger cars (M1 vehicles), as required by the Directive?
 - Did all the provisions come into force on the date required by the Directive? If not, which were different?
 - Has the Commission taken any enforcement action against the MS (see, for example, the accompanying extracts from the Commission's annual Survey of Implementation and Enforcement of EU law)?
 - If yes, why? How did the Member State respond?
 - Have the reasons for the enforcement legal action now been addressed? If so, when?

c) Free take back – *Article 5(4) of the Directive required Member States to ensure that the last owner of the vehicle could return the vehicle to a treatment facility at no cost. It also requires that ‘producers’ should meet all, or a significant part, of the costs of the implementation of the measure and/or take back vehicles. Article 12(2) states that Article 5(4) applies to vehicles put on the market after 1 July 2002 from that date (i.e. 1 July 2002) and to all vehicles (no matter when they were put on the market) from 1 January 2007.*

- How/when did the Member State implement this aspect of the Directive?
- Is take back now free for final users? From when did this provision apply for pre-July 2002 vans/cars? For all cars/vans?
- Do ‘producers’ now pay all or a significant part of the costs? From when did this provision apply? How are ‘producers’ made to pay?
- What systems were put in place to enable the collection and treatment of ELVs (Articles 5(1) to 5(3))? Are they effective?
- Where changes to existing systems necessary or were new systems put in place? (If existing systems were already in place, could you explain how these operated/were affected, as appropriate?)
- What difficulties have arisen with respect to the free take back and the requirement that producers pay at least a significant part of the costs?
- If there were any delays in transposing the provisions of Article 5, what were the reasons for these?

d) Reuse and recovery targets – *Article 7(2a) requires Member States to take measures to ensure that, by 1 January 2006, ‘economic operators’ reuse and recover at least 85% on average of ELVs by weight, annually, and reuse and recycle at least 80%. For older vehicles (those produced before 1 January 1980) these minimum rates are 10% lower.*

- In addition to the take back systems referred to above, has the Member State taken any additional measures to increase the reuse, recovery and recycling of ELVs since 2000?
- What proportion of ELVs was reused/recovered/recycled in 2000?
- What proportion was reused/recovered/recycled in 2005 (or the most recent year for which data is available)?
- Where changes to existing systems necessary to improve the reuse/recovery/recycling rates or were new systems put in place? (If existing systems were already in place, could you explain how these operated/were affected, as appropriate?)
- What issues, if any, have arisen?

e) Other issues:

- Were there any issues/problems in the Member State in relation to the ban on the use of certain hazardous substances (Article 4(2))?
- Were there any problems/issues in relation to the treatment of ELVs (Article 6).

- Were there any issues/problems re competent and material coding standards (Article 8(1))
- Were any agreements made between competent authorities and economic operators to implement the Articles of the Directive referred to in Article 10(3)? If so, do they meet the requirements specified in Article 10(3)?
- Did any other issues arise that are worth mentioning (e.g. links to other legislation, e.g. landfill Directive's ban on tyres, etc)?