

**FULL REGULATORY IMPACT ASSESSMENT (RIA) FOR THE DEPARTMENT OF TRADE AND INDUSTRY'S STATUTORY INSTRUMENT - *THE END OF LIFE VEHICLES (PRODUCER RESPONSIBILITY) REGULATIONS 2005* - TRANSPOSING ARTICLES 5 AND 7 OF DIRECTIVE 2000/53/EC<sup>1</sup> OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL ON END OF LIFE VEHICLES IN THE UK**

**PURPOSE AND INTENDED EFFECT OF MEASURE**

**(i) The Objective**

1. The objective of Directive 2000/53/EC of the European Parliament and of the Council on End of Life Vehicles (the 'ELV Directive') is to protect the environment and human health by reducing the volume and hazardousness of waste from vehicles and end-of life vehicles, specifically passenger cars and light goods vehicles.<sup>2</sup> The ELV Directive also aims to contribute to sustainable development and greater resource productivity by promoting the re-use, recovery and recyclability of vehicles and ELVs.

2. This full RIA<sup>3</sup> outlines the potential costs, benefits and risks which could affect businesses, charities and the voluntary sector in the UK as a result of the Department of Trade and Industry's (DTI's) Statutory Instrument (*The End-of-Life Vehicles (Producer Responsibility) Regulations 2005*) implementing Articles 5 and 7 of the ELV Directive to complete transposition of the ELV Directive in the UK.

3. Specifically, the Statutory Instrument (SI) deals with: producers<sup>4</sup> and their obligations in respect of vehicles placed on the market in the UK when they arise as ELVs in the UK (Article 5 of the ELV Directive);<sup>5</sup> the network of takeback and collection facilities to be made available, by producers, to last holders/owners of ELVs in the UK (Article 5 of the ELV Directive); and the achievement, by certain

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<sup>1</sup> And as amended by the Commission Decision of 19 February 2002 (2002/15/EC) and the Commission Decision of 27 June 2002 (2002/525/EC).

<sup>2</sup> That is, M1 and N1 vehicles defined under the Type Approval Directive (Directive 70/156/EEC) as vehicles with less than 8 seats and vehicles weighing less than 3.5 tonnes respectively.

<sup>3</sup> The partial RIA produced prior to this final RIA was published for discussion in the DTI's consultation paper of 4 February 2004 on the draft Statutory Instrument to complete transposition of the ELV Directive in the UK. This consultation (*Consultation on the Transposition of Articles 5 and 7 of the End-of-Life Vehicles Directive (2000/53/EC)*) closed on 30 March 2004.

<sup>4</sup> That is, UK registered vehicle manufacturers and professional importers.

<sup>5</sup> Obligations in relation to complete ELVs defined as those containing the engine, transmission, coachwork, wheels, catalytic converter (if fitted), and containing no other added waste.

economic operators,<sup>6</sup> of the reuse and recovery targets of the Directive (Article 7 of the ELV Directive).

## **(ii) The Background**

4. End of Life Vehicles (ELVs) are a priority waste stream of the European Community,<sup>7</sup> because of the growing numbers of vehicles that are put on the European market and arise as waste in the Community, and because vehicles contain a number of hazardous substances which, following disposal, can have a disproportionate<sup>8</sup> negative impact on the environment and on human health.

5. The End of Life Vehicles (ELV) Directive aims to reduce the amount of waste from vehicles and end of life vehicles. It introduces a number of measures in order “*..to promote the prevention of waste..*” from vehicles, and requires Member States to ensure that ELVs are treated to a new set of standards. In addition, it sets new reuse, recycling and recovery targets<sup>9</sup> for materials from ELVs, and aims at improving the environmental performance of economic operators in the vehicles market, and especially ‘downstream’ operators involved directly with ELVs.

6. The ELV Directive is an environmental Directive based on the principle of extended producer responsibility (EPR).<sup>10</sup> EPR seeks to expand the polluter pays principle (PPP), under the premise that as producers design and manufacture products they are best placed to determine product lifespan and facilitate effective re-use, recycling, recovery and disposal of products at ‘end of life’.<sup>11</sup>

7. The ELV Directive allows Member States a degree of flexibility in terms of the timing of imposition of full EPR in relation to *all* vehicles put on their national markets.<sup>12</sup> On 21 June 2002 the Minister of State for Energy and Construction

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<sup>6</sup> Economic operators are defined by the Directive as meaning producers, distributors, collectors, motor vehicle insurance companies, dismantlers, shredders, recoverers, recyclers, and other treatment operators of end-of-life vehicles, including their components and materials.

<sup>7</sup> The Community programme of policy and action in relation to the environment and sustainable development (“Fifth Action Programme”) contains an entire chapter dedicated to waste management issues, in which ELVs are mentioned as a ‘target’ area.

<sup>8</sup> In relation to the volume of waste discarded and disposed of subsequently.

<sup>9</sup> But not a specific target for re-use.

<sup>10</sup> Extended Producer Responsibility (EPR) is defined by the OECD as “*..an environmental policy approach in which a producer’s responsibility for a product is extended to the post-consumer stage of a product’s life cycle.*” See *Extended Producer Responsibility: A Guidance Manual for Governments*, OECD (2001).

<sup>11</sup> See, for example, Commission of the European Communities, *Proposal for a Council Directive on End of Life Vehicles – Explanatory Memorandum* (COM (97) 358 final), and Commission of the European Communities, *Proposal for a Directive of the European Parliament and of the Council on Waste Electrical and Electronic Equipment* (COM (2000) 347 final).

<sup>12</sup> See *Article 12 – Entry into Force* of the ELV Directive. Specifically, the Directive says that producers shall meet all, or a significant part of, the costs of free take-back of ELVs from last

announced<sup>13</sup> that the UK would, like other major car manufacturing member States, not introduce full EPR for vehicles put on the market prior to 1 July 2002 until 1 January 2007.

8. On 8 October 2003 the Minister of State for Energy, E-Commerce and Postal Services made a Statutory Instrument (SI) in relation to transposing Articles 4,5 (in part), 6,8,9, Annex I, and Annex II of the ELV Directive in the UK.<sup>14</sup> This SI came into force on 3 November 2003, and deals with restrictions on the use of heavy metals in new vehicles and components, the introduction of a Certificate of Destruction (CoD) for ELVs, the ‘take-back’ arrangements for *new* vehicles (i.e. vehicles put on the market from 1 July 2002 onwards) when they arise as ELVs,<sup>15</sup> the licensing requirements for sites that store and treat ELVs and the standards required for that storage and treatment, and requirements relating to information with respect to the coding of components, the design of vehicles and the dismantling of ELVs. Annex 1 of this full RIA provides updated estimates of costs and benefits of the 2003 SI to give an overview of the total costs and benefits of the complete ELV Directive in the UK.

9. The draft Statutory Instrument (SI), and accompanying partial RIA, which were the subject of the DTI’s 3<sup>rd</sup> Consultation Paper on the ELV Directive published on 4 February 2004, dealt with the remaining Articles (in part and in whole) of the ELV Directive that need to be transposed into UK legislation to complete transposition of the ELV Directive in the UK.

10. The resulting SI (*The End-of-Life Vehicles (Producer Responsibility) Regulations 2005*) sets out a framework within which producers are to be responsible for the takeback, treatment, re-use, recycling, recovery and disposal of vehicles they have declared responsibility for, or are assigned responsibility by the Secretary of State for Trade and Industry (DTI). To discharge this obligation, producers will need to contract with a network of Authorised Treatment Facilities (ATFs), and with the reprocessing and recycling industries. An ATF can accept any vehicle from a last holder/owner, but producers are obligated only for the vehicles which they have declared (or are assigned) responsibility for, which enter their network of contracted ATFs. Each producer’s network is to be approved by the DTI to ensure adequacy and accessibility of ATFs to last holders/owners for each marque of vehicle in the UK car parc.

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holders/owners for vehicles put on the market from 1 July 2002, from that date, and from 1 January 2007, at the latest, for vehicles put on the market prior to 1 July 2002.

<sup>13</sup> Via answer to a written Parliamentary Question. This announcement was supported by a Full RIA produced by the DTI.

<sup>14</sup> Statutory Instrument 2003 No.2635 Environmental Protection – *The End-of-Life Vehicles Regulations 2003*, HMSO (2003).

<sup>15</sup> Vehicle manufacturers and professional importers operating in the UK have accepted responsibility for the takeback and treatment of vehicles they placed on the market (termed the ‘own marque’ or ‘own badge’ approach) from 1 July 2002 onwards if they have a no or negative value when arising as ELVs. Producers may discharge their obligations by contracting with authorised treatment facilities (ATFs) or by entering into arrangements with the motor insurance industry and/or vehicle salvage operators directly. The 2003 SI was supported by a Full RIA produced by the DTI.

### **(iii) Risk Assessment**

11. The main risks to the environment and human health from End-of Life Vehicles (ELVs) are the potential damage caused by waste following the dismantling of ELVs, and the potential damage caused by residues once ELVs have been shredded to extract the metals for recycling.

12. The Commission's Explanatory Memorandum to the proposed Directive says that *"Some 25 per cent of the vehicles weight (the so called "shredding residues") is hazardous waste which today is landfilled, often contaminating the soil and groundwater. This fraction, which amounts to about 1.9 million tonnes of waste per year, represents up to 10 per cent of the total amount of hazardous waste generated yearly in the EU."*<sup>16</sup>

13. More effective control of the dismantling and disposal of ELVs will reduce the risks of damage to the environment and human health from waste from ELVs and any hazardous substances in ELVs.

14. The ELV Directive also aims to contribute to a reduction in risk arising from use of landfill across Europe, and in the UK, by requiring additional materials from ELVs to be reused, recycled or recovered over and above historic and current levels.

15. In addition, increased reuse, recycling and recovery of materials from ELVs should contribute, albeit in a relatively small way, to alleviating concerns surrounding resource productivity, and in this context is consistent with the UK Government's sustainable consumption and production agenda.<sup>17</sup>

16. Moreover, improvements to the licensing regime for dismantlers and scrapyards dealing with ELVs, and the introduction of the Certificate of Destruction (CoD) under the ELV Directive should contribute to other measures the UK Government is taking to improve the accuracy of the UK's vehicle register and reduce the risk of various forms of vehicle crime and related offences and incidents.

### **OPTIONS**

17. The UK transposed a significant part of the ELV Directive via the Statutory Instrument made in October 2003. However, the UK is currently facing infraction proceedings from the European Commission for failure to transpose completely the Directive within the required timescale laid down in the Directive

18. A range of options for completing transposition of the ELV Directive were discussed in the partial RIA for public consultation in 2004. These options included producer obligations based on market shares/presence, producer obligations based on

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<sup>16</sup> *Proposal for a Council Directive on end of life vehicles*, Commission of the European Communities, Brussels, COM(97) 358 final, paragraph 9.

<sup>17</sup> See, for example, *Taking it on – developing UK sustainable development strategy together*, at [www.sustainable-development.gov.uk](http://www.sustainable-development.gov.uk)

calculations of positive and negative value vehicles, and producer obligations based on own marque/own brand. It is not straightforward to quantify the costs and benefits relating specifically to the means by which the UK will achieve the aims of the Directive. The 2005 SI builds on the 2003 SI by extending the 'own marque'/ 'own brand' producer obligations to vehicles put on the market prior to 1<sup>st</sup> July 2002.

## **COSTS AND BENEFITS**

### **Business sectors affected**

19. The main business sectors affected by the 2005 SI include motor vehicle manufacturers and professional importers (SIC<sup>18</sup> 34.10), motor vehicle component manufacturers (SIC 34.30), salvage operators, dismantlers, shredders, reprocessors, and secondary metal merchants (SIC 27.10, 37.10, SIC 51.57, SIC 51.12, SIC 63.22). There are 36 main vehicle manufacturers selling in the UK and 9 main vehicle producers operating in the UK. In addition, at any one time there are around 150-200 small volume vehicle producers in the UK,<sup>19</sup> 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.

20. Some estimates were that prior to the 2003 ELV Regulations coming into force there were around 2500 dismantlers, salvage operators, scrapyards, and secondary metal merchants dealing with ELVs, in one form or another, in the UK.<sup>20</sup> Estimates suggested that there were an additional 500 to 800 sites operating illegally.<sup>21</sup> Following the coming into force of *The End-of-Life Vehicles Regulation 2003*<sup>22</sup> the Environment Agencies have issued around 650 licences to Authorised Treatment Facilities (ATFs) in England, Wales, Scotland and Northern Ireland, and expect that number to grow to between 1300 and 1400 in the coming months.

21. There are 13 shredder businesses operating in the UK at 37 facilities, half of which are owned by two firms, and it is estimated that these two firms shred some 70 per cent of ELVs in the UK. There are some 1200 reprocessors and recyclers in total in the UK, though not all of these deal currently, or will deal in the future, with materials from ELVs.

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<sup>18</sup> Standard Industrial Classification.

<sup>19</sup> Involved with M1 and N1 vehicles.

<sup>20</sup> The exact number was never clear, though it was believed a sizeable number of those dealt with relatively few ELVs.

<sup>21</sup> That is, operating without a Waste Management Licence or a registered exemption from licensing.

<sup>22</sup> Statutory Instrument No.2635, made on 8 October 2003 and laid before Parliament on 10 October 2003.

## **BENEFITS**

22. The ELV Directive will bring benefits in a number of areas. These will principally be in terms of environmental benefits, but there should also be benefits in terms of contributions to sustainable development and resource productivity, and economic and social benefits in terms of contributions to reductions in vehicle crime, and vehicle crime-related activities and incidents.

### i. Environmental benefits

#### *a) Reductions in Landfill*

23. Article 7 of the ELV Directive requires economic operators to achieve the reuse, recycling and recovery of materials from ELVs of 85 per cent by weight of ELVs arising annually from 2006-2014, and reuse, recycling and recovery of 95 per cent by weight of ELVs arising annually from 2015 onwards.

24. This reuse, recycling and recovery will result in less material from ELVs being disposed of in landfill. To estimate the benefits of the targets of Article 7 of the Directive, assumptions need to be made about the volume of ELV material that may arise in the UK in the future, and the resource costs of landfill in the UK in the future.

#### *Historic ELV arisings*

25. There is no official data on the number of vehicles that are disposed of every year in the UK. However, some estimates have been made.

26. ACORD<sup>23</sup> used to produce an annual report providing estimates of the number of ELVs, the weight of ELVs, and information on the recycling and recovery of ELVs in the UK. The last published report from ACORD was in 2001 and relates to estimates for 2000.

27. A report by TRL Limited for the Department of Environment, Food and Rural Affairs (DEFRA)<sup>24</sup> estimated that there were 2.110 million ELVs in the UK in 2000. Table 1 below summarises estimates for historic ELV arisings in the UK.

28. TRL and ACORD used a similar methodology to estimate ELV arisings, though the TRL estimate is clearer in the sense that it explicitly estimates vehicles that are de-registered because they are exported from the UK, and it estimates stolen vehicles that are de-registered but are never recovered. Estimated ELV arisings are thus calculated as:

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<sup>23</sup> ACORD stands for the Automotive Consortium On Recycling and Disposal. ACORD was formed in 1991 and comprises representatives of motor vehicle manufacturers, the vehicle dismantling and shredding industries, and the plastic and rubber manufacturing industries. It also has support and input from component suppliers, the steel and glass industries, the insurance industry and UK Government.

<sup>24</sup> *Data required to monitor compliance with the End of Life Vehicles Directive*, TRL Limited (January 2003).

*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).*

29. The above gives a figure for ELV arisings based on changes in the number of vehicles registered, with vehicles entering the register because they are new sales, and vehicles leaving the register because they are scrapped, or exported for use overseas, or stolen and never recovered by the keeper.

**Table 1: Estimates for historic ELV arisings in the UK**

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

30. It is possible to produce a historic series for estimates of ELV arisings in the UK by using data on the vehicle stock in the UK from Department for Transport (DfT) statistics, from data on new vehicle registrations, and from data on vehicles exported and vehicles stolen.

31. It is acknowledged that the UK’s vehicle register has historically been incomplete, in the sense of not covering all vehicles that run on the roads in the UK at any point in time. The Driver and Vehicle Licensing Agency (DVLA) have estimated that historically the vehicle register has been about 92 per cent accurate.<sup>25</sup> This would mean there were potentially 8 per cent more ELVs arising historically than would be estimated from using the headline vehicle register numbers.

#### *Future ELV arisings*

32. Estimates for future ELV arisings in the UK require assumptions to be made about the following:

33. Vehicle stock. In 2003 the vehicle stock<sup>26</sup> was reported at just over 28 million, and has risen by around 2.2 per cent per annum (on average) since 1980.

34. The DfT estimates an increase in the number of vehicles in the UK of 18 per cent between 2000 and 2010.<sup>27</sup> If we assume this growth rate continues from 2010 to 2025, which may be optimistic because there will be a point where car ownership in the UK reaches saturation levels, we can obtain estimates for the annual stock of vehicles in the UK.

<sup>25</sup> *Road Vehicle (Registration and Licensing) (Amendment) (No 3) Regulations 2003, Regulatory Impact Assessment, DVLA.*

<sup>26</sup> For private cars and light goods vehicles.

<sup>27</sup> *Transport Statistics for Great Britain* (2004 edition) – Department for Transport.

35. In addition, the DVLA aim to improve the accuracy of the vehicle register to 97.5 per cent by July 2005, and so this will mean that changes in the headline number of vehicles registered will more accurately reflect the difference between new registrations and ELV arisings.

36. New vehicle registrations in each year. New car registrations hit a record high of 2.58 million vehicles in 2003, and were 2.57 million in 2004. Since 1980 new vehicle registrations (of private cars and light goods vehicles)<sup>28</sup> have grown by an average of around 1.7 per cent per annum.

37. Many industry experts think that new car sales may have reached a plateau in the UK and are not expecting an increase in the number of new registrations over the short-term. The Society of Motor Manufacturers and Traders (SMMT) are forecasting 2.465 million new car registrations in 2005, and around a similar number in 2006.

38. The UK is a mature vehicle market with many vehicles being purchased to replace end-of-life vehicles. However, there may still be room for some market growth if, for example, the number of households owning two or three cars continues to increase. But again, there will be a point where car ownership begins to approach saturation levels in the UK.

39. In the face of limited evidence we can make two assumptions. One based on some industry estimates that new car registrations will plateau around 2.5 – 2.6 million per annum into the future, and one based on some market growth, but less than seen in the past, of say, around 1 per cent per annum.

40. Vehicles de-registered for export. Around 1.1 million vehicles have been de-registered for export from the UK since the DVLA was formed in 1974. This equates to around 40,000 vehicles per annum on average. We can assume that a similar number of vehicles are exported, on average, in the future.

41. Vehicles stolen and unrecovered. Data on the number of vehicles stolen each year is available from the Home Office. In 2002, 314,000 vehicles were stolen in the UK, down from levels of around 400,000 in 1999. The Home Office have a target to reduce vehicle crime by 30 per cent over a five year period to 2004. Estimates are that 69 per cent of stolen vehicles are recovered,<sup>29</sup> suggesting a working assumption that 31 per cent of future stolen vehicles could remain unrecovered, though work by the Home Office and Police Services may well reduce these numbers in the future.

#### *Historic average weight of ELVs*

42. Passenger cars have increased in weight significantly since the 1980's as the number of functions and components within cars has increased. These include,

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<sup>28</sup> Levels are provided in the Department for Transport's *Transport Statistics*.

<sup>29</sup> *Vehicle Crime Reduction: Turning the Corner*: Police Research Series Paper 119, available on Home Office website.

notably, the introduction of air bags and crash protection systems more widely, power steering, more general use of air conditioning and climate control systems, and a range of electronic devices, from electric windows to music systems.

43. The TRL Report provides a table of a selection of popular passenger cars showing the growth in weight. This growth varies widely between make and model, ranging from around 20 per cent to over 50 per cent between 1983 and 1997. TRL make an estimate of the average weight of an ELV in 2000, by making calculations on the weight of passenger cars and light vans when they arise as ELVs, of 940 kilogrammes.<sup>30</sup> ACORD estimated the average weight of an ELV at 1030 kilogrammes in 2000. ARN<sup>31</sup> calculates the average weight of an ELV in the Netherlands at 911 kilogrammes.

#### *Future average weight of ELVs*

44. Some industry experts suggest that the weight of vehicles may have peaked because the major additions to vehicles in terms of safety, and other components has now taken place. On the other hand, crash tests and safety standards for vehicles continue to develop, and vehicles require reinforcements to meet these standards.

45. However, the major drivers affecting the weight of vehicles in the future will be fuel efficiency and CO<sub>2</sub> emission standards. Many manufacturers have moved already to incorporate lighter metals into vehicles to reduce weights for these reasons. Given this, some industry experts do not expect the average weight of vehicles to increase significantly over time, and to be considerably less than that seen in the more recent past.

46. TRL estimate that the total weight of ELV arisings decreased by around 2.5 per cent from 2000 to 2003. ACORD estimate a 0.5 per cent increase in the average weight of an ELV between 1997 and 2000. As outlined above, industry does not expect significant increases in vehicle weights in the future, largely because of CO<sub>2</sub> emission standards.

47. An assessment of the weight of current best selling cars suggests that the average weight of new cars may be around 1100 kilogrammes.<sup>32</sup> For the purpose of the ELV Directive this figure needs to be adjusted upwards to take account of light goods vehicles, which are lower in number but generally heavier than passenger cars. Using the range of 940 – 1030 kilogrammes as the base and applying current average weights to represent future ELVs enables an estimate of the average weight of future ELVs to be calculated.

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<sup>30</sup> TRL make a calculation based on adjusting the weight of a new cars with a full tank of petrol to an ELV with less than a full tank, by calculating the average weight of ELV passenger cars and vans, and by estimating how long new cars last – a proportion of new cars becoming ‘premature’ ELVs because they are written-off following accidents.

<sup>31</sup> Auto Recycling Nederland (ARN) website.

<sup>32</sup> The weight of new vehicles is referred to as the kerb weight. This weight needs to be adjusted to remove the weight of a driver and a full tank of fuel to reflect more accurately the weight of ELVs.

48. The above calculations enable estimates to be made of the number of vehicles that may arise as ELVs in the UK in the future, and estimates of the average weight of these ELVs. Though these estimates have their limitations, not least because they rely on a number of assumptions, and relatively little data is available, they do enable an annual total mass of ELV material to be calculated.

49. Applying the reuse and recovery targets of the ELV Directive to the estimated total mass of ELV material enables estimates of the tonnage of landfill avoided from the Directive to be calculated.

50. Landfill costs vary across the UK, but *Materials Recycling Weekly* has quoted an average cost of £34 per tonne for virtually the whole of 2004.<sup>33</sup> In his 2002 Pre-Budget Report the Chancellor of the Exchequer announced that the standard rate of landfill tax will increase by £3 per tonne in 2005-6 and by at least that amount in the years thereafter to achieve a medium-term target of £35 per tonne. This means that in 2006 landfill costs in the UK could average £40 per tonne, and could rise to around £50 per tonne in 2009.

51. Using the estimates outlined above enables estimates to be made for the benefits of avoided landfill from Article 7 of the ELV Directive. These are summarised (with other benefit estimates) below in Table 2 on Page 13.

*b) Reductions in hazardous waste disposal*

52. The ELV Directive (via Article 5 and Annex I of the Directive) requires every ELV to be depolluted prior to further processing. Historically in the UK, ELVs have not generally been depolluted prior to dismantling, shredding and recycling. This has meant that that fraction of ELVs which has not been recovered has been disposed of containing potentially hazardous substances (e.g. brake fluids, oils, and anti-freeze).

53. The potential for hazardous substances to leach from landfill and contaminate soil and groundwater with consequent negative impacts on the environment and human health is the cause of the Commission's concerns about the historic means of disposal of ELVs outlined in its Explanatory Memorandum to the ELV Directive.

54. Whilst there is relatively little evidence available to estimate in monetary terms the benefits from reductions in hazardous waste disposal specifically from ELVs, the Commission estimates that shredding residues from vehicles account for some 60 per cent of total shredding residues, and some 10 per cent of total hazardous waste produced yearly in the EU.

55. Estimates from the European Automobile Manufacturers Association (ACEA) suggest that the UK may have to deal with almost 30 per cent of all ELV arisings in the EU-15.<sup>34</sup> This is because many other member states, such as Germany, Italy, and

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<sup>33</sup> With the gate fee at £15 and the tax at £19.

<sup>34</sup> ACEA – Country Charts, Issue: June 2004. ACEA estimate around 7.5 million ELVs were treated in the EU-15 in 2000, out of a total of over 11 million de-registrations of vehicles, with the UK responsible for 2.1 million ELVs.

Belgium have very active markets in the export of second-hand cars, particularly, to eastern Europe. Whilst such figures make clear the challenge the ELV Directive poses to the UK, it also means that the UK should benefit relatively more than other member States from reductions in hazardous substances entering landfill. The actual value of these benefits will be an important issue to be determined by evaluation of the 2005 SI the DTI will undertake in 2008 or 2009.

*c) Reductions in CO2 emissions*

56. The reuse and recovery targets of the ELV Directive mean that additional materials, over and above historic levels, will be reused, recycled or recovered as a consequence of the Directive.

57. As far as the re-use and recycling of materials from ELVs will mean that the need for the production of new materials will be reduced, there will be a positive impact in terms of contributions to reductions of energy use, and reductions in emissions of CO2 from the commercial and industrial sector in the UK. The use of materials from ELVs for energy recovery should also contribute to reductions in CO2 emissions where these materials substitute for fossil fuels in energy production.

58. It is difficult to quantify the monetary value of these benefits, and this is an area that DTI evaluation of the SI will seek to clarify, but they will contribute to the UK's overall strategy on tackling CO2 emissions and climate change more generally.

*d) Positive contributions to sustainable development and resource productivity*

59. The reuse and recycling of materials from ELVs should contribute positively to the UK Government's policies on sustainable development, resource productivity, and the sustainable consumption and production agenda. Again, this will be an issue that the DTI evaluation of the SI will consider and seek to value more precisely.

*e) Positive contributions to measures tackling car crime and related illegal activities and incidents*

60. The ELV Directive introduces a system of Certificate of Destruction (CoD). CoDs are to be issued to last holders/owners of ELVs by ATFs once they have accepted an ELV for depollution and subsequent recycling and recovery.

61. The DVLA are to use CoDs as one proof that a vehicle has reached the end of its life, and so can be removed from the vehicle register. The DVLA has undertaken work with the 'downstream' industry to establish electronic links between the Agency and ATFs, so that CoDs can be issued quickly and efficiently. Such work will complement other measures the DVLA are currently undertaking to improve the UK's vehicle register, to more effectively track vehicles through the trade, and to tackle the problem of illegally run and stolen vehicles more generally and the subsequent abandonment of such vehicles.

62. In January 2004 the UK introduced a system of continuous registration for vehicles. This means that the keeper of a vehicle is responsible for the taxation of her/his vehicle unless s/he can prove to the DVLA that ownership has changed hands (via the V5 Registration form) or that the vehicle has been destroyed (via the CoD mainly), or deregistered because it has been exported or stolen and unrecovered.

63. Continuous registration has proved to be a successful system in other member States in terms of producing more accurate vehicle registers and thus reducing the scope for running vehicles illegally, undertaking crime with unregistered vehicles, and abandoning vehicles with impunity. DVLA have reported the early successes of continuous registration in the UK. DVLA Press Release Number 46 (4 August 2004) reports that 400,000 extra vehicles have been taxed since the introduction of the new car rules.

64. As well as the significant changes occurring at the DVLA, the Government has introduced a number of other measures to tackle vehicle crime and the problem of abandoned vehicles. These include a public consultation on abandoned cars in 2001 which resulted in Local Authorities being given the power to uplift abandoned cars in public places 24 hours after notification, as opposed to seven days previously. There have also been a number of specific projects targeting abandoned vehicle 'hotspots' in the UK which have had some notable successes.

65. Following public consultation, the Home Office introduced *The Motor Salvage Operators Regulations* in 2002. The aim of these Regulations, supported by the industry, the police and local government, is to “..make it much harder for criminals to dispose of stolen vehicles and increase the chance of their detection if they do so.”<sup>35</sup> The public consultation document issued by the Home Office estimated that the average economic cost (including criminal justice costs) of a stolen motor vehicle at £4,700 and of an insurance fraud at £2,800. This means that the order of costs for vehicles stolen for their parts for “ringing” (including insurance fraud) were estimated in the region of £400 million per annum.

66. Measures under the Motor Salvage Operators Regulations, the changes being implemented by the DVLA, and the introduction of the CoD under the ELV Directive were estimated to potentially reduce the number of estimated offences by up to 50 per cent, equivalent to a reduction in economic cost estimated at around £200 million per annum. The CoD should also help generally, in combination with other policy measures being taken, to ensure a more accurate vehicle register in the UK, and should make it more difficult for vehicles to be claimed to have been destroyed but are then used illegally for “ringing” or “cloning”.<sup>36</sup>

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<sup>35</sup> Foreword to the Regulations by the Minister of State, Home Office.

<sup>36</sup> “‘Ringing’ refers to the theft and subsequent recycling of a stolen vehicle back into the legitimate market by changing the identity of a vehicle, thereby making it appear to be legitimate. ‘Cloning’ is a method of ringing a vehicle, which involves re-registering a vehicle by copying the identity of a similar (non-stolen) vehicle already on the road.” Home Office Findings 238 – *Tackling organised vehicle crime: the role of NCIS*.

67. Defra's latest survey of Local Authorities in England and the Association of London Government survey of London boroughs, published on the Defra website, reported that of the almost 300,000 abandoned vehicles in England in 2002/03, 97 per cent were unlicensed vehicles. This suggests that the problem of abandoned vehicles is largely a problem of vehicles which are illegally run and then illegally disposed.

68. DVLA work to improve the system of vehicle registration in the UK, via continuous registration, and other improvements, which the CoD will contribute to, should make it more difficult to run a vehicle without licensing that vehicle, and this in turn should help mitigate the problem of abandoned vehicles, and so reduce the economic and social costs abandoned vehicles can produce.

69. In addition, the 2005 SI introduces a system of 'own marque' responsibility for vehicle manufacturers and professional importers for vehicles they have placed on the UK market when they arise as ELVs in the UK. It is believed that this responsibility will mean that vehicle manufacturers will have more of a direct interest in their own vehicles, from, as it were, 'cradle to grave', and thus will have an incentive to minimise the likelihood of their vehicles ending up being used illegally, where they can exercise some control over this.

70. It is difficult to disentangle from the policy measures outlined above the proportion of benefits that may accrue as a consequence of the introduction, under the ELV Directive, of the CoD itself. The CoD forms a relatively small part of the total measures, and so if we assume that the CoD is responsible for 10 per cent of the benefits of all the measures then its introduction could bring estimated benefits in the region of £20 million per annum.

71. Table 2 below provides a summary of all the estimated benefits discussed above.

**Table 2: Summary of Benefits of 2005 SI (£ million)**

Benefits	Present Value of Benefits 2005-2025	Annualised Value of Benefits 2005-2025	Present Value of Benefits in		
			2007	2015	2025
<b>Article 5</b> (i) Car Crime	£305 million	£21 million	£19 million	£14 million	£10 million
<b>Article 7</b> (i) 85% Target 2006-14, 95% Target 2015-25	£197 - £257 million	£14 - £18 million	£7 - £9 million	£14 - £18 million	£10 - £14 million
(ii) Hazardous Waste	Positive contributions – to be valued by DTI evaluation of the SI				
(iii) CO2 emissions	Positive contributions – to be valued by DTI evaluation of the SI				
(iv) Resource productivity	Positive contributions – to be valued by DTI evaluation of the SI				

## Costs

72. There are essentially three main additional activities the ELV Directive requires to be undertaken on ELVs that historically have not been undertaken, or consistently undertaken, in the UK. These are issuing of a Certificate of Destruction (CoD) to the last holder/owner of an ELV; de-polluting ELVs prior to further processing; and re-using, recycling and recovering ELV materials, other than the metals and spare parts, that it has not been economic to recycle or re-use in the past.

### (i) Certificate of Destruction (CoD)

73. Businesses receiving ELVs off last holders/owners have in the past spent time checking and verifying the details of the holder/owner and of the vehicle. Under the ELV Directive the last holder/owner is to be issued with a CoD which confirms his/her vehicle has been accepted for destruction. The DVLA will use the CoD to remove the vehicle from its register, and is establishing electronic links with dismantlers, scrapyards etc with the aim of providing a cost-effective and efficient system.

74. The latest estimates from some dismantlers, salvage operators and shredders is that the additional tasks needed to issue the CoD will take around 10 minutes on average per ELV. Vehicle manufacturers estimate that issuing the CoD will take less than 10 minutes on average. Issuing the CoDs is largely a manual activity, so a cost estimate for 10 minutes can be made by taking the average hourly wage, adding a factor for non-wage costs, and multiplying by the time taken.<sup>37</sup> Assuming average annual earnings increase by 2.5 per cent per annum in real terms enables a projection of the costs of issuing CoDs in the future to be made.

### (ii) Depollution (Treatment) of ELVs

75. Prior to the ELV Directive relatively few ELVs in the UK were treated before dismantling, recycling and disposal. The ELV Directive requires every ELV to be de-polluted prior to dismantling, re-use, recycling, recovery and disposal.

76. Estimates of the costs of treating an ELV in the UK to the required standards of the Directive have varied widely since the Directive was adopted.

77. The partial RIA for the draft SI provided an estimated time in the range of 45 minutes to 1 hour 15 minutes. Latest estimates from a number of industry players is that it will take around 30 minutes to depollute ELVs arising currently. In the future more vehicles will contain air bags and air conditioning equipment when they arise as ELVs. This will increase the time taken to treat an ELV to the standards of the Directive.

78. Driver airbags were fitted as standard in most vehicles from around 1992 onwards. This may mean that the majority of vehicles arising as ELVs from 2006

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<sup>37</sup> Average weekly pay in the UK in 2004 was around £419 (from *Annual Survey of Hours and Earnings* (ONS), and average weekly hours worked was just over 37 hours (from *Labour Market Trends*). A factor of 30 per cent is added to this to represent non-wage costs (e.g. National Insurance Contributions).

onwards will contain at least one air bag. Passenger air bags were fitted to most models from around 1995 onwards. This may mean that the majority of ELVs from 2009 onwards will contain more than one airbag. Air conditioning equipment is not fitted as standard on all vehicles even today, but began to be used extensively from the late 1990s early 2000s. This may mean that the majority of ELVs may contain air conditioning equipment from around 2014 onwards.<sup>38</sup>

79. Estimating that the neutralisation of air bags and the draining of fluids in air conditioning systems takes 20 minutes on average enables estimates to be made for how the time taken to treat ELVs to the standards of the Directive may vary over time. Assuming annual average earnings increase by 2.5 per cent in real terms enables annual costs for depollution to the standards of the Directive to be calculated for the projected number of ELVs arising.

80. The estimates outlined above, when combined with the estimated time for issuing the CoD, suggest that it could take one hour on average to deal with an ELV under the Directive. Technological improvements, and efficiency improvements from 'learning by doing', may mean that this time could fall in future years, but this RIA assumes the one hour figure, for more modern vehicles, continues into the future.

### (iii) Re-use, recycling and recovery of ELVs

81. The ELV Directive requires 85 per cent of ELVs on average by weight to be re-used and recovered from 1 January 2006 with a minimum of 80% re-used or recycled. ACORD estimated that in 2000, 69 per cent of materials from ELVs were recycled, and 11 per cent of parts from ELVs were re-used. The TRL Report estimated that for the total number of ELVs arising in the UK in 2000, material re-use and recovery was 77 per cent.

82. The partial RIA used for the public consultation used the figures outlined above, that an estimated 77-80 per cent of ELVs by weight are currently recovered. Respondents to the DTI consultation suggested that the current recovery rate for ELVs in the UK was either 74 per cent, 74.5 per cent, or 76-77 per cent.

83. A range of estimates suggest that around 75 per cent of the weight of an average vehicle consists of various metals. To support this, the ARN *Environmental Report 2003* says that in the Netherlands the average metal content of a complete ELV is on average 75 per cent by weight.

84. In addition to this metallic content, which is generally recycled at present, some non-metallic parts of ELVs are re-used, such as tyres, seats, and a range of fittings. Though the market for second-hand parts has declined in recent years, some estimates from dismantlers and salvage operators are that an average 1-2 per cent of ELV parts are re-used today.<sup>39</sup>

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<sup>38</sup> Assuming the average life of a vehicle is 14 years. Estimates range from 13 years (TRL) to about 15 years (ARN).

<sup>39</sup> Re-use from premature ELVs, i.e. insurance write-offs, is generally much greater than from natural ELVs, because there are more parts in better condition for re-use.

85. These estimates mean that around 76-77 per cent of ELVs by weight may on average be currently recycled or re-used. This means that the UK would need to re-use or recycle an additional 8-9 per cent of ELV arisings by weight to achieve the 85 per cent target of the Directive.

86. The ARN Report provides figures for the fuel, oil, coolant, and other fluid contents of an average ELV in the Netherlands. This is for fuel of 5 kilogrammes, oil of 4.9 litres, brake fluid of 0.3 kilogrammes, and coolants 3.6 litres.

87. The TRL Report says that the average oil available per ELV in the UK is around 7.5 litres. Oil has an average density of around 0.91 kilogrammes per litre,<sup>40</sup> which means that the average ELV may contain some 6.8 kilogrammes of oil. TRL also report a trial which suggested that the average ELV may contain around 4 kilogrammes of brake fluid. Oil and brake fluids are generally used to produce energy and heat when they are removed. This may be on site.

88. Estimates suggest that the average ELV may contain around 5 litres of fuel. The density of vehicle fuel is estimated at around 0.74 kilogrammes per litre, which means that the average ELV may contain 3.7 kilogrammes of fuel. Fuel is generally re-used when it is removed, and this may also be on site.

89. TRL report a trial of ELVs which suggested that the average ELV in the UK contained around 4 kilogrammes of coolant. Estimates from some dismantlers are that coolants cost currently around 20 pence per litre to recycle.

90. The TRL Report said that the battery of an ELV is estimated to weigh between 12-15 kilogrammes. This report estimated that 90 per cent of ELV batteries were being recycled. ARN reports the average weight of an ELV battery in the Netherlands at 13.3 kilogrammes. Recent industry estimates are that the average ELV battery is between 10 kilogrammes to 15 kilogrammes, and that 70 per cent recycling of ELV batteries is a more appropriate estimate.

91. Taking an average weight of 12 kilogrammes and 30 per cent of batteries available additionally for recycling means that batteries may represent 3 kilogrammes per ELV. Some dismantlers say they are currently receiving around 30 pence per battery.

92. The average weight of an ELV tyre is estimated at around 6.5 kilogrammes. Estimates from ACORD are that two out of the five tyres on an ELV were re-used historically because they are part-worn or can be re-treaded. Some respondents to the DTI consultation said that 1 out of every 5 ELV tyres is salvageable. If, of the five tyres on an ELV, 1 tyre has been salvaged historically this leaves 4 tyres each weighing 6.5 kilogrammes. Some dismantlers say they are currently being charged 75 pence per tyre for the recovery of ELV tyres.

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<sup>40</sup> See *Energy Prices and Taxes, Quarterly Statistics* - International Energy Agency.

93. Respondents to the DTI Consultation and the ARN Report suggest that the plastic bumpers on an ELV weigh around 5-6 kilogrammes. Responses to the DTI consultation suggested that the cost of recycling bumpers is around £1 per bumper on average.

94. There are a range of estimates for the volume of glass in ELVs. ACORD estimated that 3 per cent of ELV weight was glass. TRL also estimated 3 per cent. ARN says that glass represents 25.4 kilogrammes of ELVs in the Netherlands. Using a figure of 3 per cent suggests that the average ELV may contain glass of between 29 – 32 kilogrammes. Using 30 kilogrammes may not be an unreasonable estimate.

95. One industry estimate is that it will cost around £27 per tonne to produce aggregate from ELV glass. For glass, and bumpers, there is the issue of whether these materials will be used to achieve the 85 per cent target prior to the shredding process or post-shredding. There are some indications that some vehicle manufacturers will be looking to use the post-shredder route, because this is expected to be more cost-effective than the pre-shredder route. Some estimates are that it may take an additional 15 minutes to remove glass and bumpers from ELVs. As it is not clear at this stage which of the routes will be followed by the majority of vehicle manufacturers, this RIA includes the additional 15 minutes in the cost estimates for reaching the 85 per cent target.

96. ACORD estimated that in 1997 and 1998/9 around 9 per cent on average of ELVs consisted of plastics and around 2 per cent consisted of rubber. It is possible that the recycling of plastics and rubber will take place post-shredder. One respondent to the DTI consultation said that these materials could be used as lightweight aggregate in certain applications at a cost of around £25 per tonne. This may be an optimistic figure, particularly in the short-term, and so this RIA uses a figure in excess of current costs of landfill, at £150 per tonne.

97. The ELV Directive requires that from 2015, the 85 per cent target be increased to 95 per cent. This is to consist of a minimum 85 per cent re-use and recycling. It is possible that obligated parties will seek to use energy recovery of materials to achieve a significant proportion, if not all, of the 95 per cent target over and above the 85 per cent.

98. One estimate is for a cost of plant for the separation of ELV materials from shredder residues to be in the region of £2 million - £5 million. It is unlikely that every shredder facility in the UK would install such plant, but we can make an assumption that there may be an equivalent number to the number of heavy media separation plants in the UK currently, which is four.

99. In addition to costs of plant will be the costs of recycling or recovering the material to achieve 95 per cent. If we assume that energy will be recovered, because this may be cheaper than recycling, and that the cost of this recovery is at least the cost of landfill in the future then this would imply costs of at least £50 per tonne. One estimate for the cost of energy recovery from shredder residue in Germany is for around £90 per tonne.<sup>41</sup>

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<sup>41</sup> Proceedings of International Automobile Recycling Congress, March 2003.

100. The calculations above, though having their limitations in terms of the availability of data and being based on a number of assumptions enable estimates to be made for the costs of achieving the 85 per cent and 95 per cent targets of the Directive. These are summarised in Table 3 below.

**Table 3: Costs of 2005 SI (£ million)**

Costs	Present Value of Costs 2005-2025	Annualised Value of Costs 2005-2025	Present Value of Costs in		
			2007	2015	2025
<b>Article 5</b>	£546 - £599 million	£38 - £42 million	£29 - £30 million	£29 - £32 million	£26 - £32 million
<b>Article 7</b> (85% 2006-2014, 95% 2015-2025)	£407 - £568 million	£29 - £40 million	£16 - £22 million	£28 - £37 million	£21 - £30 million

## **EQUITY AND FAIRNESS**

101. The benefits of the 2005 SI should be spread fairly evenly across different social and economic groups and different geographical regions in the UK. The environmental benefits should accrue across the whole of the UK. The benefits from reductions in car crime and related activities and incidents should also accrue across the UK, but should also impact more in areas which have suffered disproportionately from such problems in the past

102. The costs of the 2005 SI should not impact disproportionately on any particular businesses amongst those affected. Producers will incur 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.

103. ATFs who accept ELVs outside of a producer contract will need to treat and recover ELVs to the Directive standards, but such ATFs are able to make a free market decision on whether they take such ELVs or not.

## **CONSULTATION WITH SMALL BUSINESS: THE SMALL FIRMS IMPACT TEST**

104. The ELV Directive provides a number of exemptions for small-scale vehicle producers and these are utilised in the SI.<sup>42</sup> Under an 'own marque' system producers will only be responsible for the vehicles they put on the market that arise as ELVs in their network. Smaller producers can form consortia or employ third-party service providers to minimise their administrative costs of compliance.

105. Under the SI, dismantlers and scrapyards who become ATFs are not restricted to forming contractual links with only one producer, and also do not need to form any contractual links if they do not wish. ATFs are not obligated to accept ELVs delivered to them outside of their contractual arrangements with producers, and can make a market decision on whether to accept an ELV or not.

106. In addition, ATFs can accept payment from last holders/owners of ELVs if these last holders/owners are prepared to pay for removal because, for example, they find this more convenient than delivering an ELV to a producer contracted ATF. ATFs are also able to compete for higher value ELVs for which they are not contracted, by providing last holders/owners with equivalent or better services than those available at contracted facilities. Further, ATFs are able to compete on collection services of ELVs from last holders/owners. Though the Directive provides free takeback for last holders/owners, some last holders/owners may prefer their ELVs to be collected in the future because of the convenience this provides, or the fact that the ELV may not run. Some evidence from existing dismantlers suggests that up to 60 per cent of natural ELVs<sup>43</sup> may be collected currently.

## **COMPETITION ASSESSMENT**

107. Since 2002 a competition assessment has been a requirement of Departmental RIAs. This assessment has two parts – an initial Competition Filter, which in turn may lead to a more thorough competition assessment.

108. The competition filter consists of 9 *yes/no* questions related to the markets potentially affected by a proposed regulation.<sup>44</sup> Five of these relate to the competitive process that exists, or may exist, in the market(s) affected, two relate to supply and demand factors in the market(s), and two relate to market outcomes.

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<sup>42</sup> Specifically the Directive allows exemption for small-scale producers (less than 500 vehicles per annum) from Articles 7(4), 8 and 9. Article 7(4) relates to type-approval changes for recyclability of vehicles. Special-purpose vehicles and three-wheel motor vehicles are exempt from Article 7, i.e. the reuse and recovery targets.

<sup>43</sup> That is ELVs which are not abandoned vehicles or not 'premature' ELVs because they are insurance write-offs.

<sup>44</sup> See *Guidelines for competition assessment: A guide for policy makers completing Regulatory Impact Assessments*, OFT 355 (February 2002).

109. Applying the competition filter to the 2005 SI for the ELV Directive gives the following results:

- In terms of market structure, market share is an indicator of the existing level of competition in a market and of the risk that regulation could lead to detrimental effects on competition. The UK car market has over 30 major players competing actively on market shares. More than one vehicle manufacturer (VM) has a 10 per cent or greater market share but no VM, nor professional importer, has a market share in excess of 20 per cent. The shredding industry is highly concentrated in the UK with two firms dealing with around 70 per cent of ELV arisings. Dismantlers, scrapyards and secondary metal merchants tend to be SMEs competing for wide ranging numbers of ELVs per business. The answers to Questions 1-3 of the Competition Filter are thus all yes for the UK shredding industry, yes for question one for the UK car industry, and all no for UK dismantlers, scrapyards and secondary metal merchants.
- Questions 4 to 6 of the competition filter relate to the potential disproportionate impacts on costs for different firms in the markets affected by the proposed regulation. Detrimental impacts on competition could occur if the regulation results in disproportionate impacts on some businesses, or presents a barrier to entry for businesses, and so results in markets that are more concentrated and potentially less competitive. The answer to Questions 4 and 6 for the 2005 SI is no because businesses in their specific markets will be impacted only in relation to their level of activity in the market, and the obligations on businesses will be for existing firms as well as for new firms.
- Question 5 asks if the regulation is likely to affect market structure and the number or size of firms. This is unlikely to be the case for the motor vehicle industry given that the costs of the SI are relatively small in relation to the size of the car market in the UK. It is difficult to disentangle potential impacts on the market structure of dismantlers, scrapyards, and salvage operators from the 2005 SI from the regulations that came into force in November 2003. However, it is not obvious that there will be a detrimental effect on competition given the requirement in the 2005 SI for producers to put in place adequate national networks of ATFs for the vehicles they are to be responsible for. ATFs will only have obligations in respect of treating and recovering ELVs where they choose to take these on when accepting an ELV for which they are not contracted to do so.
- Question 7 asks if the regulation will lead to higher operating costs for new or potential firms compared to existing firms. This will not be the case under the 2005 SI because all affected businesses will need to meet their obligations or achieve the same standards in terms of dealing with ELVs.
- Question 8 asks if the market is characterised by rapid technological change. Whilst the motor vehicle industry is characterised by technological change, the 2005 SI is not expected to have a negative impact on innovation in the industry. The downstream industry dealing with ELVs is generally not characterised by rapid technological change.

- Question 9 asks if the regulation would restrict the ability of firms to choose the price, quality, range or location of their products. The 2005 SI is not expected to have a significant impact in this area given that it does not impact on the ability of vehicle manufacturers to sell new vehicles, and it attempts to allow the ‘downstream’ industry to compete for both producer contracts and individual ELVs.

110. In summary, the competition filter suggests that the 2005 SI is unlikely to have a significant detrimental impact on competition, in either the vehicle industry or the ‘downstream’ industry dealing with ELVs in the UK.

## **ENFORCEMENT AND SANCTIONS**

111. The Secretary of State will be the Regulator for the 2005 SI, and is likely to appoint the Environment Agency (England and Wales), the Scottish Environment Protection Agency (Scotland), and the Environment and Heritage Service (Northern Ireland) to enforce recovery and recycling obligations from 2006. DTI will service the register of producer marque and vehicle declarations, and assess producers' network plans. The great majority of this work will take place during 2005, and later years are expected to see only relatively minor activity, as producers make adjustments to their networks to accommodate any significant changes in ELV numbers.

112. The agreement by the European Commission and member States that countries may assume a given re-use and recycling rate for the metallic element of ELVs will also significantly reduce the extent of monitoring of ELV recovery and recycling.

## **MONITORING AND REVIEW**

113. The DTI will monitor the impact and effectiveness of the 2005 SI with the help of the Devolved Administrations, and the relevant enforcement agencies. The DTI proposes to reconvene the ELV Consultation Group (see paragraph 115) to provide advice to the Department on how the SI is operating.

114. The DTI propose to undertake a full-scale evaluation of the effectiveness of the 2005 SI in 2008 or 2009. This will consist of commissioning research to determine how the SI is working in practice in meeting the aims of the Directive, the cost effectiveness of the SI, valuing in greater detail the benefits of the SI, and what lessons can be learned to revise the SI if necessary.

## **CONSULTATION**

i) within Government

115. The ELV Directive, and its transposition into UK law, has been the subject of much discussion within Government. In addition the DTI ran an ELV Consultation Group consisting of the main interested departments, agencies, the devolved administrations, and representative bodies of the main industries affected.

ii) Public Consultation

116. The ELV Directive, and its transposition into UK law, has been the subject of three separate public consultations. The first was in August 2001, the second in March 2003, and the third in February 2004. The third consultation on the draft 2005 SI received 65 responses. A summary of these responses and the Government's response is available on the DTI website.

**SUMMARY AND RECOMMENDATION**

117. This final RIA outlines the benefits and costs of the DTI's draft SI to complete transposition of the ELV Directive in the UK. The estimated costs and benefits of the SI are set out in Table 4 below where costs and benefits of an 85 per cent target over the period are also shown for comparison with the 85 and 95 per cent target over the same period.

**Table 4: Summary of Costs and Benefits of the 2005 SI (£ million)**

Costs and Benefits	Present value of total 2005-2025	Annualised value of total 2005-2025	Present value in year		
			2007	2015	2025
<b>Costs (For 85% 2006-2014, 95% 2015-2025)</b>	£953 - £1167 million	£67 - £82 million	£45 - £52 million	£57 - £68 million	£47 - £61 million
<b>Benefits (valued) (For 85% 2006-2014, 95% 2015-2025)</b>	£502 - £562 million	£35 - £40 million	£26 - £28 million	£28 - £32 million	£20 - £24 million
<b>Costs (For 85% 2006-2025)</b>	£814 - £987 million	£57 - £69 million	£45 - £52 million	£43 - £51 million	£40 - £48 million
<b>Benefits (valued) (For 85% 2006-2025)</b>	£428 - £470 million	£30 - £33 million	£26 - £28 million	£21 - £23 million	£15 - £17 million
<b>Benefits (to be valued)</b>	Positive contributions to reductions in hazardous waste, reductions in CO2 emissions, and benefits in terms of sustainable development and resource productivity to be valued by DTI evaluation of the SI in 2008 or 2009.				

## MINISTERIAL DECLARATION

I have read the regulatory impact assessment and I am satisfied that the benefits justify the costs.

Signed

Date

Mike O'Brien  
Minister for Energy and E-Commerce  
Department of Trade and Industry

Contact point:

Trevor Reid  
Energy Strategy Unit  
Bay 416  
Department of Trade and Industry  
151 Buckingham Palace Road  
London  
SW1W 9SS

tel: 0207 215 5843  
e-mail: [trevor.reid@dti.gsi.gov.uk](mailto:trevor.reid@dti.gsi.gov.uk)

## **Data Sources and References**

Auto Recycling Nederland (ARN) Annual Reports 2003, 2002, 2001, 2000

ACORD Annual Reports 2000, 1998

*Data required to monitor compliance with the ELV Directive*, TRL Limited, January 2003

DTI 3<sup>rd</sup> Consultation Responses

Motor Industry Facts 2002 – SMMT

Home Office website and various publications

Driver and Vehicle Licensing Agency website and various publications

Department for Transport website and various publications

ACEA website