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# Contents

1.0 Introduction .................................................................................................................. 9


1.1.1 Main Elements ............................................................................................................ 9

1.1.2 Relevant acquis changes to the Regulation during the Reporting Period .......... 11

1.2 About this Report .......................................................................................................... 11

1.2.1 Key Definitions ....................................................................................................... 13

1.2.2 Member State Implementation Questionnaires Considered for this Report .. 15

2.0 Transposition into National Law .................................................................................. 16

3.0 Implementation of the Directive .................................................................................... 38

3.1 Waste Hierarchy ............................................................................................................ 38

3.2 Waste Classification ...................................................................................................... 47

3.2.1 Waste Classification System .................................................................................. 47

3.2.2 Classification of Hazardous Waste .......................................................................... 55

3.2.3 Classification of Non-Hazardous Waste ................................................................. 62

3.3 Extended Producer Responsibility ................................................................................ 64

3.3.1 Measures Targeted at End of Life Products ............................................................. 64

3.3.2 Design of Products .................................................................................................. 78

3.4 Recovery Measures ...................................................................................................... 88

3.4.1 Implementation ........................................................................................................ 88

3.4.2 Separate Collection and TEEP ................................................................................. 99

3.5 Re-use and Recycling .................................................................................................. 105

3.5.1 Re-use Measures .................................................................................................... 105

3.5.2 Preparation for Re-use and Recycling Targets ......................................................... 114

3.6 Separate Waste Collection Schemes .......................................................................... 119

3.6.1 Separate Collection of Dry Recyclables and Bio-Waste ............................................ 119

3.6.2 Commingling of Waste Streams .............................................................................. 133

3.7 Safe Disposal Operations ............................................................................................ 140

3.8 Polluter Pays Principle ............................................................................................... 158

3.8.1 Implementation of Principle ................................................................................... 158
3.8.2 Distribution of Costs .................................................................................................................169
3.9 Principles of Self-sufficiency and Proximity ....................................................................................177
  3.9.1 Implementation of Principles .....................................................................................................177
  3.9.2 Recovery in Appropriate Installations ..........................................................................................188
  3.9.3 Collaboration between Member States .........................................................................................195
  3.9.4 Self-Sufficiency in Waste Disposal .............................................................................................200
3.10 Management of Hazardous Waste ..................................................................................................206
  3.10.1 Protection of Environmental and Human Health .........................................................................206
  3.10.2 Classification and Traceability of Hazardous Waste ...................................................................218
  3.10.3 Mixing of Hazardous Waste .......................................................................................................232
3.11 Waste Oils ..........................................................................................................................................241
  3.11.1 Separate Collection and Treatment ............................................................................................241
  3.11.2 Mixing of Waste Oils ....................................................................................................................251
  3.11.3 Additional Measures ....................................................................................................................256
  3.11.4 Regeneration Requirements ......................................................................................................263
3.12 Bio-waste ..........................................................................................................................................270
  3.12.1 Separate Collection of Bio-waste ................................................................................................270
  3.12.2 Treatment of Bio-waste ..............................................................................................................281
  3.12.3 Use of Bio-waste Products .........................................................................................................288
3.13 Permits ............................................................................................................................................294
  3.13.1 Treatment in Permitted Facilities ................................................................................................294
  3.13.2 Exemptions from Permitting Requirements ...............................................................................305
3.14 Waste Management Plans (WMP) ....................................................................................................313
  3.14.1 Preparation of a Waste Management Plan (WMP) ...................................................................313
  3.14.2 Geographical Coverage of Waste Management Plans (WMP) ..................................................323
3.15 Waste Prevention Programmes (WPP) ..............................................................................................328
  3.15.1 Preparation of Waste Prevention Programmes (WPP) ...............................................................328
  3.15.2 Decoupling Economic Growth and Waste Generation .............................................................334
  3.15.3 Success of Waste Prevention Programmes (WPP) ...................................................................343
3.16 Inspections .......................................................................................................................................350
3.17 Enforcement and Penalties ...............................................................................................................364
3.18 Data and Targets ...............................................................................................................................376
4.0 General Conclusion on the Implementation of the Directive .......................377
  4.1 Identified Limitations of Reporting..........................................................377
  4.2 Suggestions for Improving Member State Reporting..................................378
  4.3 Concluding Remarks..................................................................................378

APPENDICES ........................................................................................................384
  A.1.0 Appendix 1 – Table of Member State Implementation Questionnaires 2010-
       2012 385
  A.2.0 Appendix 2 – Figures on Recycling and Recovery .................................387
List of Tables, Figures and Boxes

Table 3.1: Commingled Collection in Spain ................................................................. 138
Table 3.2: GDP and Waste Production in Lithuania ................................................. 345
Table 3.3: Municipal Waste Arising in England, 2009/10–2011/12 ......................... 348
Table 3.4: Municipal Waste Arising in Scotland, 2009/10–2011/12 ....................... 348
Table 3.5: Municipal Waste Arising in Wales, 2009/10–2011/12 ......................... 348
Table 3.6: Municipal Waste Arising in Northern Ireland, 2009/10–2011/12 ........... 349
Table 3.7: Municipal Waste Arising in Gibraltar 2009/10–2011/12 ....................... 349
Table A.1: Member State Implementation Questionnaires 2010-2012 .................... 385
Table A.2: Preparation for Re-use and Recycling Rates of Household Waste for 2010-2012 .................................................................................................................. 387
Table A. 3: Preparation for Recovery Rates of Construction and Demolition Waste for 2010-2012 .................................................................................................................. 389
## Glossary

<table>
<thead>
<tr>
<th>TERM</th>
<th>DEFINITION</th>
</tr>
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<tbody>
<tr>
<td><strong>Self-sufficiency / proximity</strong></td>
<td>Member States shall establish an integrated and adequate network of waste disposal installations and of installations for the recovery of mixed municipal waste taking into account best available techniques. The network shall enable waste to be disposed of or mixed municipal waste to be recovered in one of the nearest appropriate installations, by means of the most appropriate methods and technologies. The principles of proximity and self-sufficiency shall not mean that each Member State has to possess the full range of final recovery facilities within that Member State.(^1)</td>
</tr>
<tr>
<td><strong>Extended producer responsibility (EPR)</strong></td>
<td>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. An EPR policy is characterised by: (1) the shifting of responsibility (physically and/or economically; fully or partially) upstream toward the producer and away from municipalities; and (2) the provision of incentives to producers to take into account environmental considerations when designing their products.(^2)</td>
</tr>
<tr>
<td><strong>Polluter Pays Principle (PPP)</strong></td>
<td>A requirement that the costs of disposing of waste must be borne by the holder of the waste, by previous holders or by the producers of the product from which the waste came.(^3)</td>
</tr>
</tbody>
</table>

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| Technically, Environmentally and Economically Practicable (TEEP) | As a means to facilitating or improving its recovery potential, waste should be separately collected if technically, environmentally and economically practicable (TEEP), before undergoing recovery operations that deliver the best overall environmental outcome.⁴ |

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1.0 Introduction


Directive 2008/98/EC on waste (hereafter referred to as the Waste Framework Directive (WFD) or the Directive)⁵ sets out the basic concepts and definitions related to waste management, as well as some basic waste management principles such as the waste hierarchy, the ‘polluter-pays principle’ and ‘extended producer responsibility’. The Waste Framework Directive also incorporates requirements relating to hazardous waste and waste oils (repealing old Directives on hazardous waste⁶ and waste oils⁷) and includes two new recycling and recovery targets to be achieved by 2020: preparing for re-use and recycling of certain waste materials from households and other origins similar to households to be increased to a minimum of overall 50% by weight, and preparing for re-use, recycling and material recovery of non-hazardous construction and demolition waste to be increased to a minimum of 70% by weight. The Waste Framework Directive also requires that Member States adopt waste management plans and waste prevention programmes.

1.1.1 Main Elements

The main elements of the Waste Framework Directive according to Commission Implementing Decision of 18/04/2012⁸ are summarised below:

- Waste Hierarchy (Article 4)
  - Article 4 establishes a waste management hierarchy that Member States must promote through legislation and political measures.
  - Waste management policies should prioritise prevention of waste production, followed by the re-use and recycling of waste. Following on

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from that is the use of waste as a source of energy (i.e. recovery) and as a final resort, safe disposal (such as landfilling).

- **Classification of Waste (Article 7)**

  - Article 7 asks Member States to describe their waste classification system, refer to whether waste has been classified as hazardous and whether their classification system deviates from the European List of Waste.

- **Extended Producer Responsibility (Article 8)**

  - Article 8 introduces the extended producer responsibility principle which integrates the environmental costs associated with goods throughout their life-cycles, into the market price of the products. The principle makes the manufacturer of the product responsible for the entire life-cycle of the product including for making requirements to take it back once it has reached its end of life, recycle and dispose of it.9

  - Member States are asked to describe the legislative and non-legislative measures that they have taken to establish extended producer responsibility, as well as take-back obligations and other measures to ensure re-usability or recyclability of products. This includes designing products to make re-use and recycling easier.

- **Meeting targets set out in Article 11 (2)**

  - Article 11(2) requires Member States to verify compliance with targets set regarding the re-use, recycling and recovery of waste for each year of the three-year reporting period.

- **Polluter-pays Principle (Article 14) and Responsibility for Waste Management (Article 15)**

  - Articles 14 and 15 introduce the polluter-pays principle which makes the party responsible for generating pollution pay for any damage done to the natural environment. This can be particularly relevant with regards to regulated hazardous waste sites, when the polluters can be identified.

  - Member States are asked to explain the system which implements the principle nationally, as well as whether they have opted for the costs of waste management to be borne wholly or partly by the producer of the product and how distributors share the costs, if at all.

- **Hazardous Waste Management (Articles 17-20), Waste oils (Article 21) and Bio-waste (Article 22)**

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Articles 17-22 were previously covered in separate Directives. The Waste Framework Directive repeals a number of these Directives on hazardous waste and waste oils which are now directly addressed under this Directive.

Member States are asked to explain how they manage hazardous waste, how they collect and treat waste oils, and how they collect and treat bio-waste.

- Waste Prevention Programmes (Article 29)
  - Article 29 requires Member States to draw up waste prevention programmes using the European Commission guidance in order to break the link between economic growth and the environmental impacts associated with the generation of waste.

Other main elements are the principles of self-sufficiency and proximity in waste management (Article 16), permit requirements (Articles 23, 24 and 25), and the use of Waste Management Plans (Article 28). It also discusses inspections (Article 34) and enforcement and penalties (Article 36(2)).

1.1.2 Relevant acquis changes to the Regulation during the Reporting Period


Member States had to comply with the requirements of the revised Waste Framework Directive (i.e. 2008/98/EC) by December 12th 2010. Therefore the Implementation Questionnaire 2010-2012 issued to Member States, which forms the basis of this reporting, covered the revised Waste Framework Directive for the first time.

1.2 About this Report


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This Implementation Report for the Waste Framework Directive is a synopsis of the replies submitted by Member States to the Implementation Questionnaire covering the revised Waste Framework Directive for the period 2010-2012, pursuant to Commission Implementing Decision of 18.04.2012. Furthermore data pertaining to point 19 of the Implementation Questionnaire 2010–2012 (Section 3.18 on Data and Targets) was accessed via EUROSTAT. This report is the first to cover the revised Waste Framework Directive.

Member States were required to submit replies to the Implementation Questionnaire for each Directive covered by this report for the 2010-2012 period, as well as any other relevant information on the implementation of the aforementioned Directives to the Commission. The deadline set for Member States was 18 June 2014. However any information submitted by Member States up to the time of writing this report was also taken into consideration.

On certain occasions Member States may have omitted to submit a reply to a particular question or to any of the questions in the Implementation Questionnaire. In such cases it was necessary to consider other sources, where available. Whenever a source other than the Waste Framework Directive Implementation Questionnaire replies for 2010-2012 is used, that is reported in the report. Examples include reports issued from EUROSTAT and the European Environment Agency, information found on EUR-Lex, as well as any relevant documentation found on national websites of Member States. If no other sources could be found, the Member State replies to previous Implementation Questionnaires (2004-2006 or 2007-2009) as there are summarised in the Waste Framework Directive Implementation Reports for the same time periods were used, where relevant. If any discrepancies were identified between the reply submitted by Member States in the Implementation Questionnaire 2010-2012 and any other sources considered, these have been noted and are discussed.

This report also compares the replies Member States submitted to the Implementation Questionnaire for the revised Waste Framework Directive (2008/98/EC) for the period 2010–2012, to the replies submitted by Member States to the previous Implementation Questionnaire for Directive 2006/12/EC for the period 2007-2009, as these are summarised in the Waste Framework Directive Implementation Report 2007-2009, to indicate any progress made in implementation. Given this report is the first one to cover the revised Waste Framework Directive, direct comparisons with the replies of Member States to the Implementation Questionnaire 2007-2009 have only been possible in a few


\[^{13}\text{The cut-off date was 31 December 2014.}\]

instances: **Question (1)** as covered in Section 2.0; **Question (10)(iv)** as covered in Section 3.9.4; and **Question (14) (i)** as covered in Section 3.14.1

In this report Sections 2.0 and 3.0 begin by setting out the question as it appears in the Questionnaire followed by a top level summary of the Member State replies to each question for the period 2010-2012. Section 4.0 presents concluding remarks. Appendix A.1.0 provides a tabular summary of the number of Member States across the European Union’s (EU) 28\(^{15}\) which have submitted replies to the Implementation Questionnaire for the Waste Framework Directive for the period 2010-2012. Finally Appendix A.2.0 presents the figures submitted by Member States on recycling, recovery and disposal against targets set in Article 11(2).

For practical reasons, the report does not always differentiate between direct quotes taken from Member States’ replies and re-phrased or shortened paragraphs. All due care has been taken in completing this synopsis. However, please note that the original replies submitted by Member States to the Implementation Questionnaire constitute the only ‘authentic’ source of information.

### 1.2.1 Key Definitions

The list below presents brief explanations of key terms used throughout this report:

**Implementation Questionnaire 2007–2009:** The questionnaire issued to Member States on the implementation of Directive 2006/12/EC on waste pursuant to Commission Implementing Decision of 94/741/EC,\(^{16}\) covering the period 2007-2009.


\(^{15}\) The EU28 consists of: Austria; Belgium; Bulgaria; Croatia; Cyprus; the Czech Republic; Denmark; Estonia; Finland; France; Germany; Greece; Hungary; Ireland; Italy; Latvia; Lithuania; Luxembourg; Malta; the Netherlands; Poland; Portugal; Romania; Slovakia; Slovenia; Spain; Sweden; and the UK. Please note Croatia joined the EU on 1 July 2013.


\(^{18}\) European Commission (2013) Report from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the implementation of the

**Waste Framework Directive Implementation Report 2004–2006:** This exact report but instead covering the 2004-2006 period and Directive 75/442/EEC. It was produced for the Commission by a consultant.

**Waste Framework Directive Implementation Report 2007–2009:** This exact report but instead covering the 2007-2009 period and Directive 2006/12/EEC. It was produced for the Commission by a consultant.

**Completeness:** The assessment of completeness of each Member State reply in the Implementation Questionnaire 2010-2012. In certain instances a Member State reply to

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Directives:

a question in the Implementation Questionnaire may have been partially complete or non-existent and this has been noted where relevant.

1.2.2 Member State Implementation Questionnaires Considered for this Report

Appendix A.1.0 presents in a table the Member States which submitted replies to the Implementation Questionnaire 2010-2012 to the Commission (Table A.1).

As indicated by Table A.1, 25 Member States submitted replies to the Implementation Questionnaire to the Commission for 2010–2012, with only three Member States not doing so. These are Belgium; France; and the Netherlands. For these three Member States other sources of information have been considered, where possible, to include EUROSTAT, EUR-Lex, national legislation, national Waste Management Plans and national government agencies. The Waste Framework Directive Implementation Reports 2004-2006 and 2007-2009 were also used when no other sources could be found, which summarise the replies submitted by Member States to the Implementation Questionnaire for the corresponding time periods.

Although Croatia only became a Member State of the European Union on July 1st 2013 and was not required to submit a reply to the Implementation Questionnaire for the Waste Framework Directive for the period 2010-2012, it nevertheless did so.
2.0 Transposition into National Law

The Implementation Questionnaire begins by establishing whether the Directive has been transposed into Member States’ national legislation.

**Question (1): Please provide a reference and, if available, an electronic link to your national laws transposing Directive 2008/98/EC, including any amendments.**

**Article 40** of the Waste Framework Directive is the article which is relevant to this question and concerns the transposition of the Directive, requiring Member States to bring laws, regulations and administrative procedures into force by 12 December 2012. **Question (1)** of the Implementation Questionnaire asks Member States to reference those national laws transposing the Directive.

25 Member States referred to relevant national laws, regulations and administrative provisions introduced to incorporate the revised WFD Directive into national legislation as required by **Article 40**. The detailed replies are submitted below.

In addition all three Member States that did not submit replies to the Implementation Questionnaire for 2010-2012, **Belgium, France and the Netherlands**, have also transposed the revised Directive based on information found on EUR-Lex. For **Belgium**, it’s the waste ordinance of 14 June 2012 which entered into force on 7 July 2012.**30** For **France** a report was identified by the Union of the Electricity Industry (Eurelectric)**31** summarising selected Member State transpositions of the Directive based on its own questionnaire sent out to its members, and this reported that **France** had indeed transposed the Directive, first through an emergency law signed on the 17th December 2010, and later more fully by a decree signed on 11th July 2011. The same report was used for **the Netherlands** which indicated that the Directive was fully transposed into Dutch law as well post 2010.

It is worth noting that both **Slovakia** and **Croatia’s** transpositions of the Directive came into force in 2013 that is to say after the reporting period covered in this report. In the case of **Croatia** this is understandable seeing as it only joined the European Union on July 1st 2013. **Slovakia**, however, although having implemented EU waste legislation prior to the 2008 amendment of the Directive, was operating without the 2008 amendments for the duration of the reporting period.

In the 2007–2009 period all Member States submitted details of their incorporation of the Directive into national legislation, although this is not directly comparable as the new Directive which came into force in 2008 will have required amendments to be incorporated during the 2010-2012 period.

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**30** (2012) Ordonnance relative aux dechets

**31** Eurelectric (2013) Update on National Regulations in the Field of Waste and Residues Management, 2013
Member States replies are summarised below:

**Austria** has transposed the Directive through the Waste Management Act 2002, Federal Law Gazette I No. 102/2002 (AWG 2002), available at:

http://www.lebensministerium.at/umwelt/abfall-ressourcen/abfall-altlastenrecht/abfallwirtschaftsgesetz/awg_idgf.html

In addition to the AWG 2002 the Federal Minister for Agriculture, Forestry, Environment and Water Management has implemented the following legislation:

- Regulation on the prevention and recycling of packaging waste and specific residues and the establishment of collection and recovery systems (VerpackVO 1996)
  

- Regulation of the withdrawal and charging deposits of refillable ECOCYL beverage containers made of plastics
  
  BGBl. No 513/1990 IDF BGBl II No 440/2001

- Regulation on waste prevention, collection and treatment of end-of-life vehicles (Altfahrzeugeverordnung)
  
  BGBl. II No 407/2002 IDF BGBl II No 179/2010

- Regulation on waste prevention, collection and treatment of electrical and electronic waste (Elektroaltgerateverordnung - EAEC-VO)
  
  BGBl. II No 121/2005 IDF BGBl II No 166/2011

- Regulation of the withdrawal, charging deposits and environmentally sound treatment of certain lamps (Lampenverordnung)
  
  BGBl. No 144/1992 IDF BGBl II No 440/2001

- Regulation on the prohibition of certain free lubricant additives and use of Kettensageolen
  
  BGBl. No 647/1990

- Regulation on quality of compost from waste (Kompostverordnung)
  
  BGBl. II No 292/2001

- Regulation on landfills (landfill sites directive 2008)
  
  BGBl. II No 39/2008 IDF BGBl II No 455/2011

- Regulation on waste prevention, collection and treatment of waste batteries and accumulators (Batterienverordnung)
  
  BGBl. II No. 159/2008

- Regulation on Jahresabfallbilanzen (AbfallbilanzV)
  
  BGBl. II No. 497/2008

- Regulation on the incineration of waste (Abfallverbrennungsverordnung - AVV)
  
  BGBl. II No 389/2002 - Article 1 IDF BGBl II No 476/2010

- Regulation on waste oils Waste oil Ordinance (2002)
  
  BGBl. II No 389/2002 - Article 5

- Regulation, with detailed provisions concerning the control of major-accident hazards adopted in establishments and regulation, with detailed provisions
concerning the control of major-accident hazards adopted in waste treatment facilities (Industrieunfallverordnung - to "IUV")
BGBl. II No 354/2002 IDF BGBl II No 14/2010
- Regulation on mobile installations for the treatment of waste
  BGBl. II No 472/2002
- Regulation on the burden of proof for waste (set out 2003)
  BGBl. II No. 618/2003
- Regulation establishing a list of wastes (waste catalog Ordinance)
  BGBl. II No 570/2003 IDF BGBl II No 498/2008
- Regulation on the establishment of hazardous waste and hazardous waste problems (Festsetzungsverordnung)
  BGBl. II No 227/1997 IDF BGBl II No 178/2000
- Regulation on Behandlungspflichten of waste
  (Abfallbehandlungspflichtenverordnung)
  BGBl. II No 459/2004 IDF BGBl II No 363/2006
- Regulation on the biogenic waste separate collection
- Regulation on the separation of waste materials in construction
  BGBl. No 259/1991
- Recyclingholzverordnung, Federal Law Gazette II No. 160/2012

These regulations are available at:
Http://www.lebensministerium.at/umwelt/abfall-ressourcen/abfall-altlastenrecht/awg-verordnungen.html

Bulgaria has transposed the Directive through the Waste Management Act (promulgated in the State Gazette No 53 of 13 July 2012, effective 13 July 2012, amended in No 66 of 26 July 2013, effective 26 July 2013) (ZUO), which is published at:


All regulations governing waste management are available on the website of the Ministry of Environmental and Nature Protection at:
http://www.mzoip.hr/default.aspx?id=3709

The following documents and regulations are also in place:
- Waste Management Strategy of the Republic of Croatia (OG No 130/05)
- Environmental Protection Act (OG No 80/13)
- Sustainable Waste Management Act (OG No 94/13)
- Rules on Packaging and Packaging Waste (OG Nos 97/05, 115/05, 81/08, 31/09, 156/09, 38/10, 10/11, 81/11, 126/11, 38/13, 86/13)
- Rules on Waste Tyre Management (OG Nos 40/06, 31/09, 156/09, 111/11, 86/13)
- Rules on Waste Oil Management (OG Nos 124/06, 121/08, 31/09, 156/09, 91/11, 45/12, 86/13)
- Rules on the Management of Waste Batteries and Accumulators (OG Nos 133/06, 31/09, 156/09, 45/12, 86/13)
- Rules on the Management of End-of-Life Vehicles (OG Nos 136/06, 31/09, 156/09, 53/12, 86/13, 91/13)
- Rules on Medical Waste Management (OG No 72/07)
- Rules on the Management of Waste Electrical and Electronic Appliances and Equipment (OG No 74/07, 133/08, 31/09, 156/09, 143/12, 86/13)
- Rules on the Environmental Label (OG No 70/08, 81/11)

Cyprus has transposed the Directive through the waste law N.185 (I)/2011, which was amended in 2012 by the law 6(I)/2012. An electronic version of the relevant legislation is available at the website of the Department of Environment of the Ministry of Agriculture, Natural Resources and Environment here:


The Czech Republic has transposed the Directive through the following legislation:

- Act No 185/2001, on waste and on amendment to some other Acts, as amended (“Waste Act”)
- Act No 477/2001, on packaging and on amendment to some other Acts (“Packaging Act”)
- Decree No 381/2001 on the catalogue of waste and the list of hazardous waste and lists of waste and states for export, import and transit of waste and the procedure for granting agreement with the export, import and transit of waste ("Catalogue of Waste"), as amended
  http://www.mzp.cz/www/platnalegislativa.nsf/d79c09c54250df0dc1256e8900296e32/744b4ecf4745be95c12570060044610a?OpenDocument
- Decree No 383/2001, on the details of waste management, as amended
  http://www.mzp.cz/www/platnalegislativa.nsf/d79c09c54250df0dc1256e8900296e32/d8ba26756f2f18b5c1257561003d1242?OpenDocument
- Decree No 376/2001, on evaluation of the hazardous properties of waste, as amended
Denmark has transposed the Directive through the following legislation:

- ADR Order: Statutory Order no 788 of 27 June 2013 on the carriage of dangerous goods by road. [Link](https://www.retsinformation.dk/Forms/R0710.aspx?id=152738)
- Waste and Raw Material Tax Act: Act on tax on waste and raw materials (the Waste and raw material tax Act); see Consolidated Act no 311 of 1 April 2011. [Link](https://www.retsinformation.dk/Forms/R0710.aspx?id=144737)
- Accreditation Order: Statutory Order no 900 of 17 August 2011 on quality requirements for environmental measurements taken by accredited laboratories, certified persons, etc. [Link](https://www.retsinformation.dk/Forms/R0710.aspx?id=138231)
- Battery Order: Statutory Order no 1186 of 7 December 2009 on batteries and accumulators and end-of-life batteries and accumulators. [Link](https://www.retsinformation.dk/Forms/R0710.aspx?id=128544)
- Statutory Order no 131 of 10 February 2012 on the involvement of the general public in the preparation of certain plans and programmes within the environmental field. [Link](https://www.retsinformation.dk/Forms/R0710.aspx?id=140204)

- Statutory Order no 415 of 13 May 2005 on active dissemination of environmental information. [Link](https://www.retsinformation.dk/Forms/R0710.aspx?id=12821)
- Bioash Order: Statutory Order no 818 of 21 July 2008 on the use of bioash for agricultural purposes (the Bioash Statutory Order)
Landfill Order: Statutory Order no 1049 of 28 August 2013 on landfill sites.  
https://www.retsinformation.dk/Forms/R0710.aspx?id=124157

Tyre Order: Statutory Order no 148 of 16 February 2009 on fees and grants for material recovery from tyres. 
https://www.retsinformation.dk/Forms/R0710.aspx?id=123485

https://www.retsinformation.dk/Forms/R0710.aspx?id=139584

Packaging Tax Order: Act on tax on certain packaging, bags, disposable tableware and PVC films; see Consolidation Act no 1017 of 7 August 2013.

Approval Order: Statutory Order no 1454 of 20 December 2012 on the approval of listed activities.  
https://www.retsinformation.dk/Forms/R0710.aspx?id=144330

Soil Transport Order: Statutory Order no 1479 of 12 December 2007 on notification and documentation in connection with the transport of soil.  
https://www.retsinformation.dk/Forms/R0710.aspx?id=113936

Environmental Protection Act: Act on environmental protection; see Consolidated Act no 879 of 26 June 2010. 
https://www.retsinformation.dk/Forms/R0710.aspx?id=132218

Environmental Inspection Order: Statutory Order no 497 of 15 May 2013 on environmental inspections. 
Deposit Order: Statutory Order no 1129 of 27 September 2010 on deposits on and collection, etc. of packaging for certain beverages.

Waste Product Order: Statutory Order no 1662 of 12 December 2010 on the use of waste products and soil for construction and engineering works and on the use of sorted, uncontaminated construction and engineering waste (the Waste Product Order). 
https://www.retsinformation.dk/Forms/R0710.aspx?id=134831

Penal Code: Penal Code; see Consolidated Act no 1028 of 22 August 2013. 
https://www.retsinformation.dk/Forms/R0710.aspx?id=132423

Environmental Impact Assessment Order: Statutory Order no 1510 of 15 December 2010 on assessment of the environmental impact of certain public and private sector installations pursuant to the Planning Act. 
https://www.retsinformation.dk/Forms/R0710.aspx?id=134469

Estonia has transposed the Directive through the Act on Amendments to the Waste Act of 27 October 2011, available at: 
https://www.riigiteataja.ee/akt/109112011001

The original single text of the Waste Act (State Gazette I 2004, 9, 52) is available at: 
https://www.riigiteataja.ee/akt/104012013034
The Directive is also implemented through the National Waste Management Plan 2008–2013, available at:


In addition to the Waste Act and the National Waste Plan, the Directive is transposed in the following regulations:

- Government of the Republic Regulation No 122 of 26 April 2004 ‘Detailed list of activities in the areas of activity requiring a waste permit for waste generation, and production volumes and waste quantities for which a waste permit is not required’ (State Gazette I, 2004, 31, 212) https://www.riigiteataja.ee/akt/13354609
- Government of the Republic Regulation No 121 of 26 April 2004 ‘Terms for the procedural acts performed in the course of the proceedings for granting, amendment or revocation of a hazardous waste management licence; list of the information necessary for applying for the licence; and format of the licence’ (State Gazette I, 2004, 31, 211) https://www.riigiteataja.ee/akt/13135973
- Minister of the Environment Regulation No 7 of 8 April 2013 ‘Requirements for the composting of biodegradable waste’ (State Gazette I, 10 April 2013, 1)

Finland has transposed the Directive primarily through the following legislation:


In addition, individual articles of the directive have also been implemented by the following legislation:

- Government Decree 528/2013 on the Collection and Recycling of Waste Paper
- Government Decision 962/1997 on Packaging and Packaging Wastes
- Government Decision 527/2013 on the Collection and Recovery of Discarded Tyres
- Government Decree 851/2004 on End-of-life Vehicles
- Government Decree 852/2004 on Waste Electrical and Electronic Equipment
- Government Decree 422/2008 on Batteries and Accumulators
- Government Decree 526/2013 on the Beverage Packaging Return Scheme
- Penal Code 39/1889

The Åland Islands have transposed the Directive through the following legislation:

- The Waste Act 1981:3
  [Link]
- The Waste Decree 2011:74
  [Link]
- The Environmental Protection Act 2008:124
  [Link]
- The Environmental Protection Decree 2008:130
  [Link]

Germany has transposed the Directive through the Recycling and Waste Management Act of 24 February 2012 (BGBl. I S. 212, as amended by Act of 22 5th 2013 I, p. 1324 (MWV 1. 5. 2014). This law included, in Art. 1, the new Recycling Act (available at [Link]) and incorporates necessary adjustments of other laws, such as the Electrical and Electronic Equipment Act and the Act on Batteries. The Recycling Act is supplemented by specific legislation, for example by the ELV regulation and the Commercial Waste Ordinance. The responsibility of individual provinces to implement waste legislation is covered by state law.


Hungary has transposed the Directive through the following legislation:

- Act CLXXXV of 2012 on waste (‘the Waste Act’); entry into force: 1 January 2013
  [Link]
- Act LIII of 1995 on the general rules of protecting the environment (‘the Environment Protection Act’)
  [http://njt.hu/cgi_bin/njt_doc.cgi?docid=23823.245100](http://njt.hu/cgi_bin/njt_doc.cgi?docid=23823.245100)
- Decree No 145 of 27 December 2012 of the Minister for Rural Development on the detailed rules of waste management activities related to waste oils
  [http://njt.hu/cgi_bin/njt_doc.cgi?docid=157814.247022](http://njt.hu/cgi_bin/njt_doc.cgi?docid=157814.247022)
- Government Decree No 440 of 29 December 2012 on the record keeping and data supply obligations related to waste
  [http://njt.hu/cgi_bin/njt_doc.cgi?docid=158020.23579](http://njt.hu/cgi_bin/njt_doc.cgi?docid=158020.23579)
- Government Decree No 439 of 29 December 2012 on the registration and official permitting of waste management activities
  [http://njt.hu/cgi_bin/njt_doc.cgi?docid=158019.235795](http://njt.hu/cgi_bin/njt_doc.cgi?docid=158019.235795)
- Government Decree No 442 of 29 December 2012 on packaging and on the waste management activities related to packaging waste
  [http://njt.hu/cgi_bin/njt_doc.cgi?docid=158022.235802](http://njt.hu/cgi_bin/njt_doc.cgi?docid=158022.235802)
- Government Decree No 443 of 29 December 2012 on the waste management activities related to electric and electronic equipment
  [http://njt.hu/cgi_bin/njt_doc.cgi?docid=158023.235804](http://njt.hu/cgi_bin/njt_doc.cgi?docid=158023.235804)
- Government Decree No 444 of 29 December 2012 on vehicles that have become waste
  [http://njt.hu/cgi_bin/njt_doc.cgi?docid=158024.235806](http://njt.hu/cgi_bin/njt_doc.cgi?docid=158024.235806)
- Government Decree No 445 of 29 December 2012 on the waste management activities related to battery and accumulator waste
  [http://njt.hu/cgi_bin/njt_doc.cgi?docid=158025.235808](http://njt.hu/cgi_bin/njt_doc.cgi?docid=158025.235808)


Many provisions within the Directive were already enshrined in national primary legislation by the Waste Management Act 1996 and associated Regulations made thereunder. The 2011 Waste Directive Transposition Regulations amend provisions within the 1996 Waste Management Act as appropriate and also provide for stand-alone Regulations on aspects within the Directive not amenable for direct incorporation into the Act by way of specific amendments. The 2011 Transposition Regulations also provide for consequential amendments to associated Regulations affected by the transposition.

**Italy** has transposed the Directive through the Legislative Decree No 205/2010 (available at [http://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:decreto.legislativo:2010;205](http://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:decreto.legislativo:2010;205)) amending Legislative Decree No 152/2006, which has become the consolidated act on
the environment. The consolidated version of the two instruments is available at, by entering the document number and year to access the text:


Since many of the provisions and the general outline of the Directive were already contained in Legislative Decree No 152/2006, Legislative Decree No 205/2010 simply incorporated, where necessary, the consolidated act on the environment. For an overview of the compliance of Italian legislation with the Directive it is therefore necessary to refer to both legislative instruments, and not just to Legislative Decree No 205/2010, which is the official transposition text.

Latvia reported that national laws and regulations transposing this Directive into national law have been notified in the National Execution Measures database. No further information was submitted and this database could not be accessed.

Lithuania has transposed the Directive through the following legislation:

- Order No D1-497 of the Minister for the Environment of the Republic of Lithuania of 14 June 2010 approving the Technical Compost Use Programme
- Order No D1-1004 of the Minister for the Environment of the Republic of Lithuania of 16 December 2010 approving the requirements to regional and municipal waste management plans
- Order No D1-981 of the Minister for the Environment of the Republic of Lithuania of 10 December 2010 amending Order No 80 of the Minister for the Environment of 27 February 2002 approving the Rules on the issuing, updating and withdrawal of integrated pollution prevention and control permits
- Order No D1-528j of the Minister for the Environment of the Republic of Lithuania of 15 July 2013 approving the Rules on the issuing, updating and withdrawal of integrated pollution prevention and control permits
  http://www3.lrs.lt/pls/inter3/dokpaieska.showdoc_l?p_id=453692&p_query=tar%F0os%20integruotos%20prevencijos%20ir%20kontrol%EBs&p_tr2=2
- Order No D1-693 of the Minister for the Environment of the Republic of Lithuania of 29 December 2008 amending Order No 80 of the Minister for the
Environment of 27 February 2002 approving the Rules on the issuing, updating and withdrawal of integrated pollution prevention and control permits

- Order No D1-613 of the Minister for the Environment of the Republic of Lithuania of 15 October 2009 amending Order No 80 of the Minister for the Environment of 27 February 2002 approving the Rules on the issuing, updating and withdrawal of integrated pollution prevention and control permits


- Order No 699 of the Minister for the Environment of the Republic of Lithuania of 31 December 2002 approving the environmental requirements to waste incineration

- Order No D1-111 of the Minister for the Environment of the Republic of Lithuania of 25 February 2008 amending Order No 217 of the Minister for the Environment of 14 July 1999 approving the Rules on waste management and approving the methodological recommendations on preparing technical regulations for waste recovery or disposal

- Order No D1-660 of the Minister for the Environment of the Republic of Lithuania of 6 December 2007 amending Order No 80 of the Minister for the Environment of 27 February 2002 approving the Rules on the issuing, updating and withdrawal of integrated pollution prevention and control permits

- Order No D1-503 of the Minister for the Environment of the Republic of Lithuania of 31 October 2006 amending Order No 80 of the Minister for the Environment of 27 February 2002 approving the Rules on the issuing, updating and withdrawal of integrated pollution prevention and control permits

- Law No X-1674 (3 July 2008) amending Articles 1, 2, 4 and 8 of the Law of the Republic of Lithuania on waste management
• Order No D1-57 of the Minister for the Environment of the Republic of Lithuania of 25 January 2007 approving the environmental requirements to the composting of biodegradable waste
• Order No D1-419 of the Minister for the Environment of the Republic of Lithuania of 20 July 2009 amending Order No D1-57 of the Minister for the Environment of the Republic of Lithuania of 25 January 2007 approving the environmental requirements to the composting of biodegradable waste
• Order No 3D-499/D1-435 of the Minister for Agriculture of the Republic of Lithuania and of the Minister for the Environment of the Republic of Lithuania of 26 May 2010 approving the Programme for the management of biological waste generated in food industry enterprises
• Law No XI-1324 amending Articles 1, 2, 4, 6, 7, 8, 9, 10, 11, 13, 14, 15, 17, 26, 27, 28, 30, 32 and 36, Section II, the title of Section VI and Annexes 4 and 5, adding Section II(1) and Articles 4(1), 6(1), 7(1), 11(1), 11(2), 12(1), 18(1) and 29(1) and repealing Article 29 and Annexes 1, 2 and 3 of the Law of the Republic of Lithuania on waste management
• Law amending the Law of the Republic of Lithuania on waste management
• Law No XI-1325 amending Articles 51(3) and 242 of the Code of Administrative Offences of the Republic of Lithuania
  

• Order No D1-367 of the Minister for the Environment of the Republic of Lithuania of 3 May 2011 approving the Rules on the record keeping and reporting on waste generation and management
  

• Law No X-279 amending Articles 2, 30 and 34 and Section 8(1) of the Law of the Republic of Lithuania on waste management
  

• Resolution No 896 of the Government of the Republic of Lithuania of 18 July 2012 establishing the State Register of Waste Managers, approving the regulations of the State Register of Waste Managers and setting the launch date of the Register
  

**Luxembourg** has transposed the Directive through the Act of 21 March 2012 on the management of waste. This acted amended the following legislation:

• Institution law of 31 May 1999 concerning a fund for environmental protection.
• The law of 25 March 2005 on the operation and financing of the action SuperDrecksKëscht.
• The law of 19 December 2008) on batteries and accumulators and waste batteries and accumulators b) amending the amended law of 17 June 1994 on the prevention and management of waste.
• Law of 24 May 2011 on services in the internal market.

The law is published in the official journal of Luxembourg, Memorial A No. 60 of March 28, 2012, and is available at:

[http://www.legilux.public.lu/leg/a/archives/2012/0060/a060.pdf#page=2](http://www.legilux.public.lu/leg/a/archives/2012/0060/a060.pdf#page=2)

**Malta** has transposed the Directive through the Waste Regulations (LN184/11; as amended; and Subsidiary Legislation 504.37), available at:


**Poland** has transposed the Directive through the following legislation:

• Act of 14 December 2012 on Waste (Journal of Laws of 2013, items 21 and 888)
http://dziennikustaw.gov.pl/DU/2013/21/1
(Act of 27 April 2001 on Waste (Journal of Laws of 2010, No 185, item 1243, as amended) was in force in the reporting period)

  http://www.monitorpolski.gov.pl/DU/2008/s/25/150/1

- Regulation of the Minister for the Environment of 22 April 2011 on Emission Standards for Installations (Journal of Laws No 95, item 558)
  http://dziennikustaw.gov.pl/DU/2011/s/95/558/1

- Regulation of the Minister for the Environment of 4 November 2008 on Requirements for Performing Emission Measurements and Measurements of the Amount of Abstracted Water (Journal of Laws No 206, item 1291)
  http://dziennikustaw.gov.pl/DU/2008/s/206/1291/1


  http://dziennikustaw.gov.pl/DU/2012/391/1

- Act of 27 July 2001 on the Introduction of the Environmental Law Act, the Act on Waste and Amendments to Certain Acts (Journal of Laws No 100, item 1085, as amended)
  http://dziennikustaw.gov.pl/DU/2001/s/100/1085/1

- Regulation of the Minister for the Environment of 8 December 2010 on Model Documents for Maintaining Waste Records (Journal of Laws No 249, item 1673)
  http://dziennikustaw.gov.pl/DU/2010/s/249/1673/1

- Regulation of the Minister for Economy, Labour and Social Policy of 2 April 2004 on the Methods and Conditions of Safe Use and Disposal of Asbestos-Containing Products (Journal of Laws No 71, item 649, as amended)


- Regulation of the Minister for the Environment of 6 November 2001 on Detailed Conditions to be Met by Entrepreneurs Domestically Producing Lubricating Oils Using Domestically Produced Base Oils Obtained from Regeneration in order to Include them in the Actually Achieved Level of Recycling (Journal of Laws No 131, item 1475)
  http://dziennikustaw.gov.pl/DU/2001/s/131/1475/1

- Regulation of the Minister for Economy of 21 March 2002 on Requirements for Waste Incineration Process (Journal of Laws No 37, item 339, as amended)
• Notice of the Marshal of the Sejm of the Republic of Poland of 11 March 2013 on the Announcement of the Consolidated Text of the Act on Environmental Protection Inspection (Journal of Laws, item 686)  
  http://dziennikustaw.gov.pl/DU/2013/686/1
• Regulation of the Minister for the Environment of 10 November 2011 on the Necessary Scope of Information to be Collected and Processed and on the Method of Maintaining the Central and Provincial Database on Waste Generation and Management (Journal of Laws No 257, item 1547),  
  http://dziennikustaw.gov.pl/DU/2011/s/257/1547/1
• Regulation of the Minister for the Environment of 8 December 2010 on the Scope of Information and Model Forms for the Preparation and Submission of Collective Data Sets on Waste (Journal of Laws No 249, item 1674)  
  http://dziennikustaw.gov.pl/DU/2010/s/249/1674/1
• Regulation of the Minister for the Environment of 11 December 2001 on Types or Quantities of Waste for which Maintaining Records is not Obligatory and on Categories of Small and Medium-Sized Enterprises which may Maintain Simplified Waste Records (Journal of Laws No 152, item 1735)  
  http://dziennikustaw.gov.pl/DU/2001/s/152/1735/1
• Regulation of the Minister for Economy of 4 August 2004 on Detailed Method for Handling Waste Oils (Journal of Laws No 192, item 1968)  
• Regulation of the Minister for the Environment of 5 April 2011 on the R10 Recovery Operation (Journal of Laws No 86, item 476)  
  http://dziennikustaw.gov.pl/DU/2011/s/86/476/1
• Regulation of the Minister for the Environment of 16 November 2011 on the Conditions and Scope of Access to the Provincial Database on Waste Generation and Management (Journal of Laws No 267, item 1582)  
  http://dziennikustaw.gov.pl/DU/2011/s/267/1582/1
• Regulation of the Minister for the Environment of 13 May 2004 on Conditions under which Waste is Considered Non-Hazardous (Journal of Laws No 128, item 1347)  
• Regulation of the Minister for the Environment of 27 September 2001 on Waste Catalogue (Journal of Laws No 112, item 1206)  
  http://dziennikustaw.gov.pl/DU/2001/s/112/1206/1
• Regulation of the Minister for the Environment of 11 December 2001 on the Scope of Information Provided upon Registration by Waste Holders Exempt from the Obligation to Obtain Permits and on the Method of Registration (Journal of Laws No 152, item 1734)  
  http://dziennikustaw.gov.pl/DU/2001/s/152/1734/1
• Regulation of the Minister for the Environment of 29 May 2012 on Recycling Targets, Preparation for Re-Use and Recovery by Other Methods of Certain Fractions of Municipal Waste (Journal of Laws of 2012, item 645)
Portugal has transposed the Directive through Decree Law No 73/2011 of 17 June 2011 amending Decree Law No 178/2006 of 5 September, which establishes the General Waste Management Scheme (RGGR) at national level, and is available at:


Romania has transposed the Directive through Law no 211/2011 on handling waste (Official Gazette of Romania no 837 of 25 November 2011).

Slovakia has transposed the Directive through Act No 343/2012 which came into effect on 1st January 2013, and is available at:

http://jaspi.justice.gov.sk/jaspiw1/htm_zak/jaspiw_maxi_zak_fr0.htm

Also in place is Decree of the Ministry of the Environment No 283/2001 on implementation of certain provisions of the Waste Act as amended by Decree No 509/2002, Decree No 128/2004, Decree No 599/2005, Decree No 301/2008, and Decree No 263/2010, which is available at:

http://jaspi.justice.gov.sk/jaspiw1/htm_zak/jaspiw_maxi_zak_fr0.htm

Slovenia has transposed the Directive through the following legislation:

- General Administrative Procedure Act (OGRS, 80/99, 70/00, 52/02, 73/04, 22/05 – UPB1, 119/05, 24/06 – UPB2, 105/06 – ZUS-1, 126/07, 65/08, 47/09 Constitutional Court Decision: U-I-54/06-32, 48/09 – amendments, 8/10) http://zakonodaja.gov.si/rpsi/r03/predpis_ZAKO1603.html
- Decree on Waste (OGRS, 103/11) http://zakonodaja.gov.si/rpsi/r08/predpis_URED5368.html
- Decree on Waste Oils (OGRS, 24/12) http://zakonodaja.gov.si/rpsi/r09/predpis_URED5849.html

Spain has transposed the Directive through Law 22/2011 of 28 July on waste and contaminated land, which is available at:


The law was subsequently amended by the following legislation:

**Sweden** has transposed the Directive through the following legislation of the Swedish Law of Statues (SFS):

- Ordinance on the incineration of waste (2002:1060)
- Ordinance on producer responsibility for electrical and electronic products (2005:209)

- Ordinance on recycling systems for plastic bottles and metal cans (2005:220)

- Ordinance on producer responsibility for cars (2007:185)

- Ordinance on producer responsibility for certain radioactive products and orphan sources (2007:193)

- Ordinance on producer responsibility for batteries (2008:834)

- Ordinance on producer responsibility for medicines (2009:1031)

- Ordinance on environmental inspection and enforcement (2011:13)

- Ordinance on waste (2011:927)

- Ordinance of environmental proceeding (2013:251)

- Ordinance on environmental sanction charge (2012:259)
The following regulations and guidance are also in place:

- Swedish Environmental Protection Agency (SEPA) Guidance on Ordinance on waste regarding hazardous waste (2004:14)

- SEPA Regulations and Guidance on the content in municipal waste management plan and the County Administrative Board’s collocation (2006:6)


- SEPA Regulations on landfill of waste, criteria and procedures for the acceptance of waste at facilities for landfill of waste (2004:10)

- SEPA Regulations to chapter 2 section 3 the Environmental Code about methods for professional storage, digestion and composting of waste (2003:15)

- SEPA Regulations on monitoring of specified collection rate etc. for recycled paper (1996:15)
The **United Kingdom** has transposed the Directive through various pieces of legislation across its constituent nations. The key legislation is as follows:

**England:**

- **Waste (England and Wales) Regulations 2011** (as amended)  

- **Environmental Permitting (England and Wales) Regulations 2010** (as amended)  
  (Note: this item of legislation is currently only available in its original format)

- **Hazardous Waste (England and Wales) Regulations 2005**  

- **List of Wastes (England) Regulations 2005**  

- **The Environmental Protection Act 1990**  
Wales (as in England, plus):

- Hazardous Waste (Wales) Regulations 2005 (as amended by the Waste (England and Wales) Regulations 2011)  
- The Recycling, Preparation for Re-use and Composting Targets (Monitoring and Penalties) (Wales) Regulations 2011  

Northern Ireland:

- Waste and Contaminated Land Order 1997 (as amended)  
- Controlled Waste (Registration of Carriers and Seizure of Vehicles) Regulations (Northern Ireland) 1999  
- Controlled Waste (Duty of Care) Regulations (Northern Ireland) 2002  
- Waste Management Licensing Regulations (Northern Ireland) 2003 (as amended)  
- Hazardous Waste Regulations (Northern Ireland) 2005 (as amended)  
- Waste Regulations (Northern Ireland) 2011 (SR 2011 No. 127)  

Scotland:

- Waste Management Licensing (Scotland) Regulations 2011  
- Waste (Scotland) Regulations 2011  
- Waste (Scotland) Regulations 2012  
  http://www.legislation.gov.uk/sdsi/2012/9780111016657
- Special Waste Regulations 1996 (as amended)  

Gibraltar:

- The Public Health Act  
- The Environment (Waste) Regulations 2007  
- The Pollution Prevention and Control Regulations 2013  
  http://www.gibraltarlaws.gov.gi/articles/2013s042.pdf
**Conclusion:**

All those Member States (25) which submitted replies to the Implementation Questionnaire 2010-2012 reported that they have transposed the revised Waste Framework Directive into their national law. Belgium, France and the Netherlands did not provide a reply, but it can be confirmed through other sources that France and the Netherlands have in fact transposed the Directive. Belgium has not done so yet and has been notified by the Commission to do so or face action.
3.0 Implementation of the Directive

The remaining questions of the Implementation Questionnaire concern the particulars of how a number of the Directive’s requirements (as stipulated in its articles) have been reported as being implemented by Member States. The areas covered are: the waste hierarchy, classification of waste, extended producer responsibility, recovery, re-use and recycling, separate collection, disposal, the polluter pays principle, the principles of self-sufficiency and proximity, management of hazardous waste, waste oils, bio-waste, permitting, waste management plans, waste prevention programmes, inspections and enforcement and penalties.

It should be noted that most of Section 3.0 (excluding Section 3.5.2 and a few instances where other sources of information could be considered) does not discuss Belgium, France and the Netherlands for which no replies to the Implementation Questionnaire exist for the 2010-2012 period. Their replies to the Implementation Questionnaire 2007-2009 could also not be used in this because they referred to Directive 2006/12/EC whereas the Implementation Questionnaire 2010-2012 refers to Directive 2008/98/EC.

3.1 Waste Hierarchy

Question (2): Please describe how the waste hierarchy laid down in Article 4 of Directive 2008/98/EC is reflected in the legislation and political measures in the area of waste prevention and waste management, and how the Member State encourages the options that deliver the best overall environmental outcome when applying the waste hierarchy.

In particular, please give examples of categories of those waste streams departing from the hierarchy where this is justified by life-cycle thinking on the overall impacts of the generation and management of such waste. It should be demonstrated how the Member State ensures that deviation from the waste hierarchy is objectively justified taking into consideration the criteria as laid down in Article 4(2)’s last sentence and in Recital (31).

Article 4 (1) of the Directive establishes the waste hierarchy as a priority order for EU waste management legislation and policy. Question (2) asks how the waste hierarchy is implemented in national legislation.

Article 4 (2) allows for the possibility that in some cases greater environmental benefit may be gained by departing from the waste hierarchy where this is supported by life-cycle analysis. Question (2) therefore goes on to ask Member States to give any examples of such deviations from the hierarchy.

25 Member States submitted a description of the implementation of the waste hierarchy in their national laws. However, it should be noted that Hungary only fully implemented the waste hierarchy as of 2013, when its Waste Act came into force. The previous Waste Management Act—which was active during the reporting period—by
contrast only partly implemented the waste hierarchy. The Member State replies are summarised in detail below.

The Netherlands did not submit an Implementation Questionnaire for the 2010–2012 period. However it should be noted that the concept of waste hierarchy is in fact based on Dutch environmental policy.

An example of best practice comes from Luxembourg, which reported that the five levels of the hierarchy are fully implemented in national legislation and any instance of departing from the waste hierarchy must be approved by the Administration of the Environment on the basis of a life cycle approach concerning the overall effects of the production and the management of the waste in question. Another good example is set by Finland which reported that the Ministry of the Environment has published a report containing guidance on how life cycle assessment for waste management options should be made as well giving results of Life Cycle Analyses (LCAs) already conducted.

20 Member States either reported that no deviations from the waste hierarchy occurred or else gave examples of life-cycle analysis justifying any deviations which did occur.

In addition both Finland and Sweden submitted a discussion of the topic, and of how such a departure might occur in their national legislative framework. Neither Bulgaria nor Portugal responded on the point of waste streams departing from the hierarchy. Germany responded by referencing its national legislation but did not provide any examples to demonstrate that any deviations which may have occurred have been justified by life-cycle analysis.

Member States replies are summarised below:

In Austria, the previous three-stage waste hierarchy (prevention, recovery, and disposal) was in replaced with a five-step waste hierarchy (avoidance, elimination, preparation for re-use, recycling, and other recovery) by § 1 paragraph 2 of the Act of 2002 in accordance with the Waste Framework Directive, and Austria included the relevant section of the Act in its reply.

According to the Waste Framework Directive, the options to promote are those that deliver the best overall result in terms of environmental protection. This may make it necessary to depart from the hierarchy, if justified by life cycle thinking. In particular, more polluted streams may require a deviation from the hierarchy (or the conscious withdrawal of still functioning e-waste, for example, due to the use of prohibited substances, such as PCBs). One such example is that thermal treatment is preferable to recycling when dealing with certain plastic WEEE fractions which are now banned from use due to their toxic properties.

In Bulgaria, the waste hierarchy is transposed in the Waste Management Act (promulgated in the State Gazette No 53 of 13 July 2012, effective 13 July 2012, amended in No 66 of 26 July 2013, effective 26 July 2013) which is known as the ZUO. With a view to practically implementing the waste management hierarchy a number of economic instruments and legislative measures have been introduced, such as:
1) A fee for landfilling and incineration and a ban on landfilling waste of a particular type;
2) Extended producer responsibility schemes shifting the costs of separate collection and recycling to those who place products on the market (and the operating costs for sorting and recycling infrastructure);
3) Product fees to deter use of products that, after use, produce ordinary waste;
4) Measures making it possible to apply the pay-as-you-throw principle;
5) Introduction of by-product and end of waste criteria and ensuring a market for products obtained as a result of waste recycling; and+
6) Measures encouraging operations of a higher priority in accordance with the waste management hierarchy.

In Croatia, the priority order in waste management is defined in Article 7 of the Sustainable Waste Management Act, and the country provided the relevant article in its reply. The Waste Management Strategy of the Republic of Croatia (OG No 130/05) and the Waste Management Plan of the Republic of Croatia for 2007–2015 (OG Nos 85/07, 126/10, 31/11) elaborate in more detail policy measures in the area of waste prevention and management. No decisions on the departure of waste streams from the waste management priority order referred to in Article 7(3) and (4) have been issued so far. Additionally, the Environmental Protection Act (OG No 80/13) provides for a waste management framework that includes measures for waste prevention and reduction.

In Cyprus, waste hierarchy is laid down in Article 9(1) of the national legislation. In the article, the priority order of (a) prevention, (b) preparing for re-use, (c) recycling, (d) other recovery, e.g. energy recovery and (e) disposal is set for the prevention and management legislation and policy. Exceptions are allowed only in the cases where these are justified through a life-cycle assessment study. The household and similar waste management plan prepared in 2012 and the Waste Management Strategy prepared in 2004 are both based on the priority order as it is in the Directive and the national law mentioned above. Cyprus encourages the best overall environmental outcome when applying the waste hierarchy through public awareness campaigns, lectures and seminars for the general public and for specific groups of stakeholders (recyclers, producers of waste etc.).

In the Czech Republic, all waste legislation (the Waste Act, the Packaging Act), strategies and plans which relate to waste management (the State Environmental Policy, the Waste Management Plan, the Waste Prevention Programme under preparation) are built around the waste hierarchy. The waste hierarchy itself has been directly incorporated into the Waste Act as Section 9a, and the country included that section of the Act in its reply. This incorporation into the Act means that the waste hierarchy has been adopted and implemented in the Czech Republic.

The Waste Act states that through compliance with the waste hierarchy the objective is to achieve not only a reduction in impacts on the environment and on people’s health, but also to reduce the impacts of the current economic recession through the use of waste as a raw material resource. The waste hierarchy is binding for waste management in the Czech Republic. All entities in the Czech Republic must comply with the waste
hierarchy during their activities. The highest level of the waste hierarchy – prevention of waste generation – is supported through additional obligations defined in Section 10 of the Waste Act, and the country also included that section of the Act in its reply. Other obligations stipulated in order to prevent the production of waste are defined for example in Section 3 (1) of the Act on Packaging, and again this section was included in the country reply.

At national level there is no stipulated exemption through applicable legal regulations (“exemption from the hierarchy”), while the possibility is retained for individual entities to demonstrate, through life-cycle evaluation, a more suitable method of management for a given type of waste.

In Denmark, general priorities as regards how waste is to be managed are set out in order of priority in the waste hierarchy, as laid down in Article 6(b) of the Environmental Protection Act and Article 12 of the Waste Order, and the country included these in its reply. The waste hierarchy also applies outside the scope of the Environmental Protection Act insofar as policies and legislation concerning waste prevention and management are prepared. To ensure that public authorities other than the Ministry of the Environment are also aware of the obligations that follow from the waste hierarchy, the Ministry of the Environment has distributed information to all government, regional and municipal authorities concerning the obligation of public authorities to follow the waste hierarchy in connection with the preparation of policies and regulations concerning waste prevention and management.

Article 12 of the Statutory Order on waste states that municipal waste management must follow the waste hierarchy, while Articles 64 and 67 state that undertakings must sort their waste according to its source and ensure that important fractions that are suitable for material recovery are prepared for re-use, recycled or used for other final material recovery. The general rule is thus that waste from which materials can be recovered must undergo material recovery and only waste from which materials cannot be recovered and which cannot be incinerated may be disposed of. The legislation places emphasis on minimising landfill disposal and destruction and maximising material recovery.

An example of a case where the waste hierarchy could be deviated from is a situation where life-cycle thinking suggests that the landfill disposal of construction and engineering waste containing PVC would be better overall from an environmental perspective than recycling the waste. In this case, it would therefore be permissible to have rules or policies that prioritise landfill disposal over recycling. Correspondingly, deviation from the waste hierarchy could also be permitted as regards the processing of plastic packaging containing waste food where other recovery (in this case, incineration) would be preferable to recycling because of the resource and energy consumption linked to cleaning the packaging and the subsequent treatment of the wastewat. Similarly, it should be established whether the processed waste will have a quality which will enable it to actually replace other materials. If not, it may be better from an environmental perspective to move down the hierarchy.
In **Estonia**, Sections 22, 221 and 24 of the Waste Act define the concept of the prevention of waste generation, the principles of waste hierarchy and the obligations of producers in the prevention of waste generation and the collection of waste generated. Section 21 of the Waste Act provides general requirements for the prevention of waste generation, pursuant to which, in any activity, all appropriate measures shall be applied to avoid waste generation and care shall be taken to prevent the waste generated from causing any excessive hazard to health, property or the environment. In order to achieve this objective, measures shall be taken in any activity, as far as possible, to implement the best available techniques for the sustainable use of natural resources and raw materials, including technologies whereby waste is recovered to the highest possible extent and to design, plan, manufacture and import products which are, above all, reusable or with the longest possible life span and which after they are removed from use produce waste that is recoverable to the highest possible extent. Measures shall also be taken in order to reduce the content of hazardous substances in materials and products as far as possible. According to Section 221(2) of the Waste Act, the waste hierarchy may be departed from if this ensures the best overall environmental result by considering the whole life-cycle of a substance, material or product.

In **Finland**, Section 8 of the Waste Act 646/2011 sets the general requirement for obeying the waste hierarchy. According to it, all activities shall, insofar as possible, comply with the following order of priority: first priority shall be given to reducing the quantity and harmfulness of waste generated. If, however, waste is generated, the waste holder shall first and foremost prepare the waste for re-use, or, secondarily, recycle it. If recycling is not possible, the waste holder shall recover the waste in other ways, including recovery as energy. If recovery is not possible, disposal of the waste shall be carried out. The decision on possible deviation on the hierarchy for a specific waste stream is made on a case-by-case basis, based on results of life cycle assessment. The Ministry of the Environment has published in 2012 a report that contains guidance on how life cycle assessment for waste management options should be made as well as a review of results in Finnish waste management LCAs conducted after year 2000.

In **Germany**, the requirements of the waste hierarchy from Article 4 of the Directive are reflected in sections 6–8 of the KrWG. Central importance is attached to § 6, which converts the hierarchy into its individual stages. The need to legislate a coherent implementation concept is taken into account, which is directed to the fact that the priority is to achieve the best environmental option, and as such the precautionary principle, sustainability, the life cycle of the waste, as well as technical, economic and social issues are all to be considered. "Technical feasibility" and the "economic viability" are considerations which may justify departure from the established waste hierarchy. Deviations from the hierarchy can occur with regard to waste which has been generated in the course of research. For this waste, the principle of the primacy of recovery before disposal does not apply, as the waste may carry risks. In addition, reference is also made to the statement of the Federal Government on 19.3.2012 to the EU Pilot request 2012/2937 of 17.01.2012.
In **Greece**, according to article 29 of the Law 4042/2012 (OJG 24 A), the waste hierarchy applies as a priority order in waste prevention and management legislation and policy. Both legislative and non-legislative measures have been taken to apply the waste hierarchy. Examples of categories of waste streams departing from the hierarchy mentioned were hazardous waste and hazardous healthcare waste, which due to their hazardous properties they are directed for disposal operations (D9 or D10).

In **Hungary**, On 1 January 2013, Act XLXXX of 2000 on waste management (‘the Waste Management Act’) was repealed by Act CLXXXV of 2012 on waste (‘the Waste Act’). Article 3(3) of the Waste Management Act stipulated that in order to recover the materials and energy contained in wastes, the repeated re-use of wastes and the replacement of raw materials with wastes should be maximised, and if these are not feasible, wastes should be used as energy resources to the highest extent possible. The waste hierarchy specified in Article 4 of Directive 2008/98/EC of the European Parliament and of the Council on waste (‘Directive 2008/98/EC’) was not represented in the Waste Management Act, and thus, departing from the waste hierarchy was not implemented for specific waste streams.

In **Ireland**, following transposition of Directive 2008/98/EC into national legislation, Section 21A (2)(a) of the Waste Management Act provides that the hierarchy shall be applied in the way that delivers the best overall environmental outcome. Section 32(1) of the Waste Management Act sets out a general duty on waste producers and holders to apply the waste hierarchy in management decisions. The Irish authorities have not prescribed a revised priority order for the waste hierarchy in respect of any individual waste streams on the basis of Life-Cycle-Thinking. The onus is therefore placed on the individual waste management operators to be able to substantiate and justify decisions if they do not comply with the nominal priority order of the waste hierarchy. Accordingly, it is of paramount importance that operators properly document and retain records of their reasons for departing from the nominal priority order of the waste hierarchy. Ireland went on to provide a lengthy list of legislative requirements.

In **Italy**, Article 179 of Legislative Decree No 152/2006 contains the priority criteria for waste management. This article duplicates the hierarchy as it appears in the Directive, and states that: according measures must be established which ensure the best overall outcome, taking into account the health, social and economic impacts, including technical feasibility and economic viability; public administrations shall promote the product life-cycle analysis based on uniform methods for all types of products; and that with regard to individual waste streams, the priority order may be deviated from in exceptional cases if this is justified, in accordance with the principles of precaution and sustainability.

In **Latvia**, as set forth by Section 5 of the Waste Management Law, the following requirements must be observed (in the following priority order) by state administration institutions, municipalities and waste managers in organising, planning and performing waste management efforts:

1) causes of waste generation must be prevented;
2) the amount (quantity) and hazardous properties of waste must be reduced;
3) preparing of waste for re-use must be facilitated;
4) appropriately prepared waste must be re-used;
5) recycling of waste must be promoted;
6) recovery of waste must be performed in other ways, e.g., energy recovery;
7) waste must be disposed of in a way that the environment, human life and health are not endangered;
8) waste dumps must be closed in accordance with waste management plans, and re-cultivation of closed waste dumps and landfills must be ensured.

It is laid down in the Waste Management Law that the Cabinet, if necessary, may determine the types of waste for which the priority order of the management requirements, referred to herein above, need not be observed on the basis of life-cycle of products, general environmental protection principles and observing the overall environmental, human health, economic and social impacts of the generation and management of the relevant waste. In the reporting period, the Cabinet has not specified the types of waste departing from the waste hierarchy.

In Lithuania, to ensure implementation of the waste hierarchy laid down in Article 4 of Directive 2008/98/EC, a priority measure is provided for in the programme for 2012–2016 of the Government of the Republic of Lithuania (Official Gazette, 2013, No 29-1406)—to create and implement a waste management and handling model targeted at the reduction of waste generation, waste sorting, composting, recycling and energy recovery, which would increase the recovery of materials and energy contained in the waste and reduce environmental and human health risks posed by waste. The measure was transposed into the Strategic Action Plan for 2013–2015 of the Ministry of the Environment. With regards to departing from the hierarchy, phosphogypsum waste generated in Lithuania, which amounts to over 2 million tonnes every year, can be provided as an example. This waste is generated during the production of phosphoric acid from phosphate raw materials. The waste hierarchy does not apply to phosphogypsum waste because the issue of its recovery has not yet been resolved not only in Lithuania, but also in other Member States. In Lithuania, this waste is disposed of in a specially engineered landfill.

In Luxembourg, Article 4 of the Directive is transposed into national law in Article 9 of the law of March 21, 2012. The five levels of the waste hierarchy have been implemented. Any departing from the waste hierarchy must be approved by the Administration of the environment on the basis of a life cycle approach concerning the overall effects of the production and management of the waste in question. The waste hierarchy does not apply for wastes for which a disposal operation is prescribed according to the legal or regulatory provisions applicable (e.g. elimination of PCBS and PCTS).

Malta reported that it is committed to preventing waste generation, diverting biodegradable municipal solid waste from landfills and increasing its rates of re-use, recycling and recovery for certain waste streams in line with EU and National targets. These targets have been set with the intention of reducing the impacts from waste
generation as much as possible through prevention, and to reduce stress on raw materials by re-using, recycling and recovering materials and energy stored in waste. As laid down in Schedule 5 of the Waste Regulations (LN184/11; as amended), the waste hierarchy is given high priority in national legislation and policies. Malta is committed to drawing up a waste prevention programme by December 2013, and furthermore aims to break the link between economic growth and waste production by minimising waste generation at source. Malta has not made use of the provision allowing waste management to depart from the waste hierarchy on life cycle grounds.

In **Poland**, the waste hierarchy was transposed both into Article 5 and Article 7(2) and (3) of the Act of 27 April 2001 on Waste (Journal of Laws No 185, item 1243, as amended) and into the Act of 10 July 2008 on Extractive Waste (Journal of Laws No 138, item 865, as amended). Although the waste hierarchy in the Act on Waste in force in the reporting period did not directly refer to the ‘preparation for re-use’, this concept falls within the definition of recovery contained in Article 3(3)(9) of the Act on Waste. The Polish law permits two deviations from the waste hierarchy. The first deviation from the waste hierarchy concerns asbestos waste and its impact on human life and health. In accordance with Article 160(2) of the Act of 27 April 2001 — Environmental Law (Journal of Laws of 2008, No 25, item 150, as amended), asbestos is a substance particularly hazardous to the environment, is subject to successive disposal (Article 162(1) ELA) and may not be placed on the market and re-used (Article 160(1) ELA). The second deviation from the waste hierarchy is the requirement that infectious medical or veterinary waste be disposed of only by methods that reduce the total organic carbon content in this waste to 5%.

In **Portugal**, the waste management hierarchy was set out in national law and policy measures through Decree Law No 73/2011 of 17 June 2011 (in Article 7 thereof), which, in addition to transposing the WFD [Waste Framework Directive], created a waste management fee to promote the attainment of national waste management objectives. Those national objectives are reflected in the waste management plans approved to date and are being clarified in the revised plans (see question 15). At the same time, the implementation of that hierarchy is also provided for in the specific waste management schemes (in particular relating to waste disposal in landfill).

In **Romania**, the waste hierarchy as laid down in Article 4 of Directive 2008/98/EC has been transposed by Article 4 of Law no 211/2011. Similarly, the National Waste Management Strategy sets out objectives (approved by Government Decision no 870/2013). The country further reported that the second part of the question covering departing from the hierarchy was not applicable.

In **Slovakia**, the basic waste hierarchy was already established in 2001 in sect. 3(1) of the Waste Act, stating the following. This provision did not have an immediate normative significance; rather, it has been applied through other measures such as waste management programmes, granting consents or deciding on releasing funds from the Recycling Fund. Since this waste hierarchy as it appeared was not harmonised with Article 4 of Directive 2008/98/EC, sect. 3(1) of Waste Act was amended and as such became effective as from 1. January 2013. The waste hierarchy became binding from 1.
January 2013. Specific waste streams may depart from the hierarchy where this is justified by life-cycle thinking on the overall impacts of the generation and management of such waste and if such measure is laid down by this act or a special regulation.

In Slovenia, Article 9 of the Decree on Waste states that the order of priority of the waste hierarchy must be observed in the generation and management of waste. Any deviation from this order of priority is only possible for individual waste streams to which special regulations apply if due regard is paid to the entire lifecycle of the substances and materials and the requirement to reduce environmental burden. The government did not adopt any such regulation in the reporting period.

In Spain, the principle of waste hierarchy has been transposed into the Spanish legal system through Article 8 of Law 22/2011 of 28 July. The country also provided summaries of the hierarchy’s transposition in its Autonomous Communities. Article 8(2) of Law 22/2011 of 28 July allows a certain waste stream to depart from the hierarchy in order to achieve the best overall environmental result subject to justification by life cycle thinking regarding the impacts of the generation and management of such waste, taking into account the general environmental protection principles of precaution and sustainability, technical feasibility and economic viability, protection of resources as well as the overall environmental, human health, economic and social impacts. However, since its entry into force in law, so such deviations under Article 8(2) of Law 22/2011 of 28 July have been made.

In Sweden, the purpose of the Environmental Code is reported in its chapter 1 section 1. It has a very broad scope which comprises the scope in article 1 of Directive 2008/98/EC. Among other things it states that the legislation should be applied so that raw materials and energy are conserved and opportunities for re-use and recycling are utilized so that a sustainable recycling society is reached. In chapter 2 section 5 in the Environmental Code you find the obligation that a person who pursue an activity or take a measure shall conserve raw materials and energy and re-use and recycle them wherever possible. Preference shall be given to renewable energy sources. A passage from the constitutional commentary to chapter 2 section 5 gives more insight to the intention of this section (published 1997):

This section includes the use of opportunities for re-use and recycling. The conservation principle in this context means that all operations shall be conducted and all measures shall be taken in such a way that the raw materials and energy used as efficiently as possible and consumption is minimized.

The recycling principle means that what is extracted from nature in a sustainable manner are to be used, re-used, recycled, recovered and disposed of with minimal resources and without negative effects to the environment. It can also be expressed so that it is a principle that aims at “closed loop” material flows. Also, this would in most cases mean that re-use is preferred before recycling and only after that energy recovery is chosen, which usually should be preferred before disposal in landfill.

In the United Kingdom, the waste hierarchy is primarily transposed in England and Wales via the Waste (England and Wales) Regulations 2011. Regulation 12 requires all
waste handlers to take all measures available to follow the waste hierarchy as a priority order. Departures are allowed where life cycle assessments (LCAs) indicate that this will best serve the overall outcome when considering what is technically, environmentally and economically practicable and for the protection of resources, the environment and human health. Waste streams for which departures from the waste hierarchy are applied include tyres, where LCAs show that some forms of recycling are less desirable than energy recovery, or certain grades of plastic where LCAs indicate energy recovery is more environmentally friendly than material recycling.

**Conclusion:**

25 Member States reported via their Implementation Questionnaire for the 2010-2012 period that the waste hierarchy is addressed in their national legislation and that they have introduced political measures concerning the prevention and management of waste in 2010-2012.

20 countries reported on the second point of Article 4 concerning deviation from the hierarchy for life-cycle reasons, and stated that no such cases pertain, or else submitted examples to illustrate that deviation has been supported through life-cycle thinking in 2010-2012.

Of the outstanding five Member States, Finland and Sweden both discussed relevant national legislation, allowing for the possibility of deviation, Germany referenced its national legislation, and Bulgaria and Poland did not respond to the question.

### 3.2 Waste Classification

#### 3.2.1 Waste Classification System

**Question (3) (i): With regard to Article 7 of Directive 2008/98/EC, please describe the waste classification system of the Member State.**

Article 7 of the Directive concerns Member States’ waste classification systems as they relate to the European List of Waste established by Decision 2000/532/EC.

**Question (3)** seeks to establish whether Member State classifications of hazardous and non-hazardous waste are in accordance with this list. **Question (3) (i)** therefore initially requests details of the waste classification system Member States have in place.

25 Member States described a waste classification system in line with the requirements of the Directive. Some countries, such as Cyprus, Greece, and Romania, have simply adopted the European List of Waste as their own classification system. As noted previously, Hungary's reply concerns legislation coming into effect in 2013 with no information given on whether the system was in place during the reporting period of 2010-2012. All Member State replies are summarised in detail below.

Good practice is shown by Poland, which has adopted the European List of Waste with the addition of a number of new categories necessary to capture waste distinct to the Polish economy. This approach both assures consistency with EU approach while recognising that modifications are necessary to reflect individual circumstances.
Member States replies are summarised below:

In Austria, Appendix 3 of the Austrian Waste Catalogue has been amended in line with the hazardous properties listed in Annex III of the Directive to ensure that all wastes that are considered dangerous in Austria are classified as such in conformity with EU law. On the basis of § 4 AWG 2002 a list of wastes was created, recognising as dangerous those types of wastes marked as hazardous in the directory specified in Directive.

In Bulgarian legislation, Regulation No 3 of 1 April 2004 on Classification of Waste (State Gazette No 44 of 2004, amended and supplemented in No 23 of 20 March 2012) lays down the terms and procedures for classifying waste, as well as the rights and obligations of waste holders and of the competent authorities. Annex 1 to the Regulation transposes into Bulgarian legislation the European List of Waste established by Commission Decision 2000/532/EC.

Each waste holder is obliged to classify the waste produced as a result of its activity, taking all necessary steps under the procedure established by the Regulation. The provisions apply mainly to waste producers and, in some cases as an exception, to persons possessing non-classified waste.

In accordance with the Regulation, the holder is required to classify each waste produced as a result of its activity, submitting the requisite documents under Article 7(1) of the Regulation to the Regional Inspectorate of Environment and Water (RIEW) for the area in which the waste is produced. The waste is re-classified in the event of any change in the technological processes and/or raw materials that change the composition and properties of the waste.

In Croatia, Article 12 of the Sustainable Waste Management Act describes the waste classification system:

“(1) The classification of waste includes identifying the properties, source and origin of waste, taking into consideration its composition, the concentration limit values of hazardous substances and hazardous properties of the waste; determining the group, subgroup and type of waste in accordance with the Waste Catalogue; and defining such waste in accordance with the classification for the transboundary movement of waste.

(2) The classification of waste shall be provided by the waste holder, except for mixed municipal waste.

(3) If the waste holder is unable to classify the waste on the basis of available information, he/she shall ensure that the waste is classified by an accredited laboratory referred to in Article 50 of this Act.

(4) The inclusion of a substance or an object in the Waste Catalogue shall not imply that the substance or object constitutes waste under all circumstances. Substances or objects shall be considered to be waste only if they comply with the definition of waste set forth in Article 4(1)(35) of this Act.
(5) Waste not specified in the Waste Catalogue as hazardous waste shall be considered hazardous if it is established, following an examination, that the waste displays a hazardous property listed in Annex III to this Act.

(6) The Minister shall issue rules governing the Waste Catalogue, as provided for by Commission Decision 2000/532/EC replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste, the classification of waste for the purpose of transboundary movement of waste, special conditions for the declassification of waste, and the amounts of specific wastes which are considered to be negligible.”

The properties of waste which render it hazardous are defined in ANNEX III to the Sustainable Waste Management Act. The declassification of waste, i.e. the reclassification of hazardous waste as non-hazardous, is defined in Article 13 of the Sustainable Waste Management Act.

In Cyprus the waste classification system follows the European list of waste which was transposed in national legislation with the decree KDP 157(I)/2003.

In the Czech Republic in accordance with Article No 7 of the Directive, waste is classified as hazardous if it demonstrates at least one of the hazardous properties or is listed as hazardous in the Waste Catalogue or is mixed with or polluted by any of the hazardous waste listed in the Waste Catalogue.

In Denmark, it follows from Article 4 of the Statutory Order on waste that municipal boards must decide whether a substance or object is waste. The municipal boards must also decide whether the waste constitutes:

1) Hazardous waste.
2) Packaging waste.
3) Waste suitable for material recovery.
4) Waste suitable for incineration.
5) Waste suitable for disposal.

Hazardous waste is waste which is included in and indicated as hazardous waste in the list of waste in Annex 2 to the Statutory Order on waste and which has one or more of the hazardous properties referred to in Annex 4 to the Statutory Order on waste. Hazardous waste also includes waste which has properties referred to in Annex 4.


In Finland, the waste classification system is in line with the Waste Directive (2008/98/EC). The EC list of wastes (2000/532/EC) has been implemented in Finland since Jan 1, 2002 and is at the moment issued by Annexes 3 and 4 to the Government Decree on Wastes (179/2012). The legislation has been notified to the Commission.

There are some minor modifications made to the titles and entries of the EC list of wastes:

- Title of 16 02 has been extended to include also other discarded equipment than WEEE;
- Two new entries were introduced for “other equipment” than WEEE: 16 02 97* (discarded other equipment containing hazardous substances) and 16 02 98 (other discarded other equipment than those mentioned in 16 02 97);
- Other wood-based boards than particle board and veneer were included into entries 03 01 04* and 03 01 05;
- The title of 20 01 was amended into "Specified waste types"; and
- All waste medicines from consumers and health care sector are classified as hazardous (18 01 09*, 18 02 08*, 20 01 32*).

In Germany, the European List of Waste has been incorporated wholesale into national law.

In Greece, the European List of Waste (Commission Decision 2000/532/EC, EE L 204/37/21.7.1998, as amended) is used for waste classification, according to Article 13 of the Law 4042/2012.

In Hungary, according to the Waste Act, wastes are classified by type (i.e. the type of material – such as, in particular, wooden, metal, paper, glass, composite, plastic, biodegradable – from which the waste is generated), nature (hazardous, non-hazardous) and form (waste with an identification code according to the waste list specified in the Ministerial Decree on the waste list).

In Ireland, regulation 29 of the European Communities (Waste Directive) Regulations 2011 transposes Article 7 of Directive 2008/98/EC on “List of Waste”. The Irish authorities have adopted the EU waste classification system and the Environmental Protection Agency has published guidance in the form of a consolidated version of the EU waste classification in the “European Waste Catalogue and Hazardous Waste List”.

In addition, the Environmental Protection Agency has completed a Project “Procedure for Identification of the Hazardous Components of Waste.” The Project has produced a detailed breakdown of the complex legislation which is used in classifying the hazardous properties of a waste. Where a holder of waste wishes to provide evidence of the presence or absence of hazardous properties of that waste, in accordance with Articles
7.2 and 7.3 of Directive 2008/98/EC, the Hazardous Waste Classification Tool provides a mechanism to do this.  

Finally, it is a requirement of the national arrangements for waste movement and for waste acceptance at waste to energy plants and landfill disposal facilities that the waste moved or received for treatment is correctly classified and recorded.

In Italy, Article 184 of the consolidated act on the environment establishes the procedures for the classification of waste based on its origin, dividing it into municipal and special waste and, depending on its hazardous properties, into hazardous and non-hazardous waste. The article defines hazardous waste as waste with the properties listed in Part IV, Annex I to the Decree. The article refers to Annex D, which contains a list of hazardous and non-hazardous waste. This list is identical to the list contained in Decision 2000/532/EC.


In Luxembourg the European List of waste is used. The use of the appropriate code of this list is mandatory in any approach and any administrative act in connection with the execution of the Act of March 21, 2012, including requests for authorisations and

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32 [http://www.epa.ie/waste/hazardous/class/](http://www.epa.ie/waste/hazardous/class/)
records, the keeping of records, the preparation of annual reports and the completion of the procedures for notifications of transfers of waste.

In **Malta**, waste is classified according to Commission Decision 2000/532/EC establishing a list of wastes, as provided by sub-regulation 1 of regulation 7 laid down in the Waste Regulations (LN184/11; as amended). Furthermore, the waste generator has the responsibility to carry out the necessary tests to determine the nature of the waste and therefore under which EWC code should the waste be classified. Should the waste be classified under a mirror entry, the competent Authority has the capacity to ask the waste generator to perform more tests as it deems necessary in order to determine whether the waste is non-hazardous or hazardous.

In **Poland**, waste classification is carried out under the Regulation of the Minister for the Environment of 27 September 2001 on the Waste Catalogue (Journal of Laws No 112, item 1206), which is in line with the European Waste Catalogue. The waste catalogue divides waste into groups, subgroups and types. All types of waste in the catalogue are assigned a six-digit code. The first two digits of the code denote the waste group, which at the same time indicates the origin of waste. The first four digits of the code identify the waste subgroup, and the entire six-digit code identifies the type of waste. The national waste classification system comprises twenty waste groups, depending on the origin of waste. Hazardous waste is marked in the catalogue with a superscript asterisk (‘*’) beside the waste code.

The European Waste Catalogue numbering was maintained in the Polish waste catalogue. However, certain subgroups and types of waste were added, namely specific waste characteristic of the Polish economy, which was assigned codes containing the number 80 or higher (e.g. 10 09 80). The waste classification procedure in force was introduced by the Regulation of the Minister for the Environment of 27 September 2001 on the Waste Catalogue and complies with the identification procedure in the European Waste Catalogue.


In Slovakia, pursuant to sect. 18(3) of the Waste Act waste, for the purposes of waste management, is classified according to the List of Waste. A Waste Catalogue has been established following the provision of the Slovak Ministry of Environment Decree No 284/2001 as amended. Pursuant to sect. 2 of Decree No 284/2001, waste is categorised by the List of Waste included in Annex 1 (list of categories, subcategories, and waste types) and harmonised with Commission Decision 2000/532/EC of 3 May 2000 repealing Decision 94/3/EC establishing a list of waste pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Commission Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste.

Individual waste types are classified into categories and subcategories of waste. Waste is divided into the following categories:

a) Hazardous waste, marked with the letter N; and
b) Non-hazardous waste, marked with the letter O.

Waste types are marked with a six-digit number and a category, with the exception of waste classified as other unspecified waste, where the waste category is to be determined only afterwards, on the basis of hazardous properties assessment (Annex No 5 to Decree No 284/2001).

In Slovenia, the classification of waste and changes to the classification of waste are laid down in Articles 5 and 6 of the Decree on Waste. A waste producer must classify waste in accordance with the List of Waste, except in the case of the release of waste (i.e. in the event of the delivery of waste without a record sheet) which, under the List of Waste, is to be classified by the person that receives it. It is prohibited to reclassify hazardous waste as non-hazardous waste by diluting or mixing the waste with the aim of lowering the initial concentrations of hazardous substances to a level below the thresholds for defining waste as hazardous.

Where waste may be classified as hazardous or non-hazardous waste, it must be classified as hazardous waste, unless it is clear, from the information on the composition of the waste and on the concentration of hazardous substances, or from an analysis using testing methods, that it displays none of the properties listed in Annex 1 to the Decree on Waste that would classify it as hazardous waste. Waste may be classified as waste by means of a six-digit classification number ending in 99 if the information on the composition of the waste and on the concentration of hazardous substances, or from an analysis using testing methods, shows that it displays none of the properties listed in Annex 1 to the Decree on Waste that would classify it as hazardous waste. Analysis of the waste must be conducted by a person that has acquired an accreditation from the accreditation service for the performance of analyses using the methods referred to in Annex 1 to the Decree on Waste.

In Spain, waste is classified in accordance with the provisions of Article 6 of Law 22/2011 of 28 July, and in accordance with Commission Decision 2000/532/EC establishing the European list of waste:
“1. The determination of waste that must be considered as hazardous and non-hazardous waste shall be done in accordance with the list set out in Commission Decision 2000/532/EC of 3 May 2000.

2. By order of the Minister of Environment and Rural and Marine Affairs, subject to consultation with the coordinating committee on waste, waste may be reclassified in the following terms, pursuant to, where appropriate, the procedures envisaged in Article 7 of Directive 2008/98/EC:

a) Waste may be considered as hazardous where, even though it does not appear as such on the list of waste, it displays one or more of the properties listed in Annex III.

b) Waste may be considered as non-hazardous where there is evidence to show that specific waste that appears on the list as hazardous waste does not display any of the properties listed in Annex III.

Whenever the cases in the two paragraphs above occur, the Ministry of the Environment and Rural and Marine Affairs shall immediately notify the European Commission of this and submit all the relevant information to the Commission.

3. The reclassification of hazardous waste as non-hazardous waste may not be achieved by diluting or mixing the waste with the aim of lowering the initial concentrations of hazardous substances to a level below the thresholds for defining waste as hazardous.”

Order MAM/304/2002 of 8 February publishing waste recovery and disposal operations and the European list of waste, transposes the European list of waste into the national legal system.

In Sweden, the legal basis for classification of waste, annex III on the hazardous properties of Directive 2008/98/EC and the List of waste including limit values of concentration of hazardous substances established by Decision 2000/532/EC, can be found in annex 1 and annex 4 to the Swedish Ordinance on waste. This means that the overall principle in the Swedish classification system follows what is described in the EU-regulation.

The classification of waste is crucial for a number of environmental regulations to apply and serves as basis for the safe disposal of waste under the Ordinance on waste. The classification also governs if permission is needed to treat a certain type of waste or for the type of landfill that may be considered. Hazardous waste is marked with an asterisk (*) in the waste list in Annex 4 to the Ordinance on waste. Absolute hazardous entries are by default regarded hazardous and absolute non-hazardous entries regarded non-hazardous. If a waste is identified as hazardous by a specific or general reference to dangerous substances, the waste is considered hazardous only if the concentrations are such (i.e. percentage by weight) that the waste presents one or more of the properties listed in Annex 1 to the Ordinance on waste. This applies to the so called mirror entries in the waste list.

In Northern Ireland and Scotland, the classification system is also based on the European Waste Catalogue, as transposed by the Hazardous Waste (Northern Ireland) Regulations 2005 and the List of Wastes Regulation (Northern Ireland) 2005. In Scotland the Article is transposed through the Waste Management Licensing (Scotland) Regulations 2011, with the definition contained in the Special Waste Regulations 1996. For waste classification, Gibraltar follows the European List of Waste as it appears in Directive 2000/532/EC. Decision 2000/532/EC incorporated new waste categories which Member States had noted displayed properties listed in Annex III of the Directive, thus rendering them hazardous.

### 3.2.2 Classification of Hazardous Waste

**Question (3) (ii):** With reference to Article 7(2) and (3) of Directive 2008/98/EC, has any waste that has been classified as hazardous waste in the List of Waste established by Commission Decision 2000/532/EC been classified as non-hazardous by the Member State or has any waste not classified as hazardous in the List of Waste been classified as hazardous?

**Article 7 (2)** allows for the possibility that Member States may consider waste to be hazardous when it was not classified as such under the European List of Waste if they possess any of the properties listed in Annex III to the Directive. **Article (7) (3)** allows for the converse possibility that waste classified as hazardous under the European List of Waste may be considered to be in fact non-hazardous, where it can been shown that it does not possess any of the properties listed in Annex III to the Directive.

**22 Member States** reported that they have not taken either of the alternate classification options allowed for by **Article 7 (2)** and **Article 7 (3)**. The detailed replies are summarised below.

Only **Slovakia** reported that it has taken one of the options, that being to classify certain wastes (including those of medicinal and animal derivation) as hazardous whereas they

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33 The management of hazardous waste within the EU was previously legislated for by the Hazardous Waste Directive 91/689/EEC (OJ No L 377/20 of 31.12.91), however, that directive was repealed on the 12 December 2010, from which time the management of hazardous has been governed by the revised Waste Framework Directive.
do not appear as such on the European List of Waste. This is likely good practice in so far as it shows environmental caution and a proper application of the criteria of hazardous properties. Italy’s reply reported that it defines hazardous waste as waste which has the properties listed in Annex III to the Directive. Denmark has not as yet taken a decision on whether to make any such alternate classifications.

*Member States replies are summarised below:*

In Austria, the hazardous properties of Annex III to the Waste Framework Directive are incorporated into Appendix 3 of the Austrian Waste Catalogue Ordinance, No. II 570/2003 as amended. This ensures that all wastes that are considered dangerous are classified in conformity with EU law. On the basis of § 4 AWG 2002 a list of wastes was created. Recognised as dangerous are those types of waste marked as hazardous in the directory specified in Directive 2008/98 EC. (See FIG. 4 § Z2 Act 2002) Because hazardous properties are classified in Austria under single directory, some wastes defined as non-hazardous under the EU scheme are waste defined as hazardous in Austria. For example, all kinds of batteries are classified as hazardous.

In Bulgarian legislation, Regulation No 3 of 1 April 2004 on Classification of Waste (State Gazette No 44 of 2004, amended and supplemented in No 23 of 20 March 2012) lays down the terms and procedures for classifying waste, as well as the rights and obligations of waste holders and of the competent authorities. Annex 1 to the Regulation transposes into Bulgarian legislation the European List of Waste established by Commission Decision 2000/532/EC. Each waste holder is obliged to classify the waste produced as a result of its activity, taking all necessary steps under the procedure established by the Regulation. The provisions apply mainly to waste producers and, in some cases as an exception, to persons possessing non-classified waste. No waste has been classified non-hazardous by Bulgaria which is classified as hazardous by the EC List of Waste, and no waste has been classified hazardous by Bulgaria which is classified as non-hazardous by the European List of Waste.

In Croatia, Article 12 of the Sustainable Waste Management Act describes the waste classification system. The properties of waste which render it hazardous are defined in ANNEX III to the Sustainable Waste Management Act. The declassification of waste, i.e. the reclassification of hazardous waste as non-hazardous, is defined in Article 13 of the Sustainable Waste Management Act. Croatia, has not so far used the possibilities arising from the provisions of Article 7(2) and (3) of Directive 2008/98/EC, and not a single decision on waste declassification has been issued to date. The declassification of waste, i.e. the reclassification of hazardous waste as non-hazardous, is defined in Article 13 of the Sustainable Waste Management Act.

Cyprus reported that its waste classification system follows the European list of waste, which was transposed in national legislation with the decree KDP 157(I)/2003. No waste stream has been classified differently from the European list of waste.

In the Czech Republic, in accordance with Article No 7 of the Directive, waste is classified as hazardous if it demonstrates at least one of the hazardous properties or is listed as hazardous in the Waste Catalogue or is mixed with or polluted by any of the hazardous
waste listed in the Waste Catalogue. The Waste Catalogue has kept pace with amendments to Commission Decision 2000/532/EC and currently there are no differences in the classification of waste.

In Denmark, it follows from Article 4 of the Statutory Order on Waste that municipal boards must decide whether a substance or object is waste. The municipal boards must also decide whether the waste constitutes:

1) Hazardous waste;
2) Packaging waste;
3) Waste suitable for material recovery;
4) Waste suitable for incineration; and
5) Waste suitable for disposal.

Hazardous waste is waste which is included in and indicated as hazardous waste in the list of waste in Annex 2 to the Statutory Order on Waste and which has one or more of the hazardous properties referred to in Annex 4 to the Statutory Order on waste. Hazardous waste also includes waste which has properties referred to in Annex 4. Denmark has not yet reached a final decision as regards amending the classification of non-hazardous waste to hazardous waste, as referred to in Article 7(2) or amending the classification of hazardous waste to non-dangerous as referred to in Article 7(3).

In Estonia, under Section 2(4) of the Waste Act, a list of waste, including hazardous waste, has been established by Government of the Republic Regulation No 102 of 6 April 2004 ‘List of waste, including hazardous waste’, which is largely based on Commission Decision 2000/532/EC replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste, as amended. No waste classified as hazardous in the European List of Waste has been classified as non-hazardous, or vice versa.

In Finland, the EC list of wastes (2000/532/EC) has been implemented since Jan 1, 2002 and is at the moment issued by Annexes 3 and 4 to the Government Decree on Wastes (179/2012). The legislation has been notified to the Commission. There are, however, some minor modifications made to the titles and entries of the EC list of wastes:

- Title of 16 02 has been extended to include also other discarded equipment than WEEE;
- Two new entries were introduced for “other equipment” than WEEE: 16 02 97* (discarded other equipment containing hazardous substances) and 16 02 98 (other discarded other equipment than those mentioned in 16 02 97);
- Other wood-based boards than particle board and veneer were included into entries 03 01 04* and 03 01 05;
- The title of 20 01 was amended into "Specified waste types"; and
- All waste medicines from consumers and health care sector are classified as hazardous (18 01 09*, 18 02 08*, 20 01 32*).
In relation to the Åland Islands the regulation is identical to that of **Finland**. The competent authorities responsible for making decisions on deviation from the classification of EC List of Wastes in individual cases are the Centres for Economic Development, Transport and the Environment (regional ELY-Centres) and Regional State Administrative Agencies (Section 7 of the Waste Act). The competent authorities have to send these decisions to the Finnish Environment Institute to ensure that the EU Commission will be notified of these decisions. The Finnish Environment Institute has not received any notifications from the competent authorities on deviations from the classification of the EC List of Waste during the current reporting period (Dec. 21, 2010 – Dec 31, 2012).

In **Germany**, the European List of Waste has been adopted wholesale as the national system of categorisation, and no waste classified as hazardous in the List has been classified as non-hazardous, or vice versa.

In **Greece**, the European List of Waste is used for waste classification, according to Article 13 of the Law 4042/2012, and no waste classified as hazardous in the List has been classified as non-hazardous, or vice versa.

In **Hungary**, according to the Waste Act, wastes are classified by type (i.e. the type of material – such as, in particular, wooden, metal, paper, glass, composite, plastic, biodegradable – from which the waste is generated), nature (i.e. hazardous, non-hazardous) and form (i.e. waste with an identification code according to the waste list specified in the Ministerial Decree on the waste list). No waste classified as hazardous in the European List of Waste has been classified as non-hazardous, or vice versa.

In **Ireland**, Regulation 29 of the European Communities (Waste Directive) Regulations 2011 transposes Article 7 of Directive 2008/98/EC on “List of Waste”. The Irish authorities have adopted the EU waste classification system and the Environmental Protection Agency has published guidance in the form of a consolidated version of the EU waste classification in the “European Waste Catalogue and Hazardous Waste List”. In addition, the Environmental Protection Agency has completed a Project “Procedure for Identification of the Hazardous Components of Waste.” The Project has produced a detailed breakdown of the complex legislation which is used in classifying the hazardous properties of a waste.

Finally, it is a requirement of the national arrangements for waste movement and for waste acceptance at waste to energy plants and landfill disposal facilities that the waste moved or received for treatment is correctly classified and recorded. In addition all IPPC (IED) permits in the State require the facility to classify their waste before consignment off-site. No waste classified as hazardous in the European List of Waste has been classified as non-hazardous, or vice versa.

**Italy** did not submit a specific reply to this question beyond the general reply detailed in Section 3.2.1.

In **Latvia**, waste is classified pursuant to the list of waste provided in the annex to Decision 2000/532/EC of 3 May 2000 replacing Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of

The List of Waste applied by Latvia does not include any waste which is classified as non-hazardous but which is referred to in the Commission Decision as hazardous. The List of Waste established by Latvia also does not comprise any waste which is classified as hazardous but which is specified in the Commission Decision as non-hazardous.

In Lithuania the List of Waste adopted by Order of the Minister for the Environment of the Republic of Lithuania is in compliance with the List of Waste established by Commission Decision 2000/532/EC.

The waste classified as hazardous waste in the List of Waste established by Commission Decision 2000/532/EC has been classified by Lithuania as hazardous waste and the waste classified as non-hazardous waste in the List of Waste has been classified as non-hazardous waste, respectively.

In Luxembourg, waste is listed as per the list of wastes established by Decision 2000/532/EC. Using the appropriate code from that list is mandatory in any action and any administrative act in relation to the enforcement of the law of 21 March 2012, including applications for licenses and registrations, record keeping, the annual reporting and fulfilment of waste shipment notification procedures.

In general, classifications of hazardous and non-hazardous waste match those of the European List of Waste. However, The Environment Administration may consider waste as hazardous even if it does not appear as such on the List of Waste, if it displays one or more of the properties listed in Annex V (properties that make hazardous waste). Also, if the competent authority has evidence which shows that waste listed hazardous waste does not display any of the properties listed in Annex V, it can be considered as non-hazardous waste.


In Romania, the classification of waste, including hazardous waste, and the encoding is carried out based on Commission Decision 2000/532/EC, replacing Commission Decision 94/3/EC establishing a list of wastes pursuant to Article 1(a) of Council Directive 75/442/EEC on waste and Council Decision 94/904/EC establishing a list of hazardous waste pursuant to Article 1(4) of Council Directive 91/689/EEC on hazardous waste. There have been no cases where waste classified as hazardous in the European List of Waste has been classified as non-hazardous, or vice versa.

Malta reported that the question is not applicable as the Member State has not made use of the provision.
In **Poland**, no changes were made to hazardous waste classification system—which is based on the European List of Waste—during the 2007–2009 period.

In **Slovakia**, waste medications are classified under a different approach published by the Ministry in the Slovak Ministry of Environment Journal No 1/2002. Waste generated from all drugs published in the list of drugs and medications is given catalogue numbers 18 01 08, 18 02 07 and 20 01 31. Waste generated from homoeopathic drugs and medicinal herbs is given catalogue numbers 18 01 09, 18 02 08 and 20 01 32. Pursuant to a regulation published by the Ministry in the Slovak Ministry of Environment Journal No 1/2003, the term "waste of animal origin" includes waste registered under No 18.02.02 and as such this waste is not registered under No 02.02.02, but rather under No 18.02.02.

Following the Commission Decision 2000/532/EC, catalogue numbers 06.01.99 and 06.02.99 show the symbol*, e.g. hazardous waste. The Slovak Republic did not publish with these waste types their category - hazardous waste, hence, category of the other unspecified waste is to be determined only afterwards, on the basis of assessing its hazardous properties. As to the catalogue numbers 01 03 03 (in the SR 01 03 09), 01 05 01 (in the SR 01 05 05), 05 01 02, 17 01 05 (in the SR 17 06 05), 17 03 01, 17 03 03, 18 01 02, 18 01 07 this represents, according to the Commission Decision 2000/532/EC, non-hazardous waste. In these cases, the Slovak Republic added in its List of Waste the term - hazardous waste.

As to the catalogue numbers 16 05 02 (in the SR 16 05 07), 16 05 03 (in the SR 16 05 08) and following the Commission Decision 2000/532/EC, the Slovak Republic included these cases into its List of Waste under the term - hazardous waste, and at the same time registered it under catalogue number 16.05.09, e.g. discarded chemical substances other than those registered under 16 05 06, 16 05 07 or 16 05 08 that show its category being - non-hazardous.

In **Slovenia**, the European List of Waste has been adopted wholesale as the national system of categorisation, and no waste classified as hazardous in the List has been classified as non-hazardous, or vice versa.

Waste is classified in **Spain** in accordance with the provisions of Article 6 of Law 22/2011 of 28th July, and in accordance with Commission Decision 2000/532/EC establishing the European list of waste. Order MAM/304/2002 of 8th February publishing waste recovery and disposal operations and the European list of waste, transposes the European list of waste into the national legal system. Since the entry into force of Law 22/2011 of 28th July, there has not been any reclassification of non-hazardous waste as hazardous, nor of hazardous waste as non-hazardous in relation to the provisions of the European list of waste.

In **Sweden** the legal basis for classification of waste can be found in annex 1 and annex 4 to the Swedish Ordinance on waste. The overall principle in the Swedish classification system follows what is described in the EU-regulation.

Hazardous waste is marked with an asterisk (*) in the waste list in Annex 4 to the Ordinance on waste. Absolute hazardous entries are by default regarded hazardous and
absolute non-hazardous entries regarded non-hazardous. If a waste is identified as hazardous by a specific or general reference to dangerous substances, the waste is considered hazardous only if the concentrations are such (i.e. percentage by weight) that the waste presents one or more of the properties listed in Annex 1 to the Ordinance on waste. This applies to the so called mirror entries in the waste list. The different types of waste in the list are fully defined by the six-digit code for the waste. Guidance is provided to enable the waste code to be assigned to the waste. Different types of waste generated by a single activity may need to be identified in various types of waste. The definition of hazardous waste doesn't apply to pure alloys not contaminated with hazardous substances. For wastes already enumerated in the list the current classification apply.

At the present time no waste that has been classified as hazardous waste in the List of Waste established by Commission Decision 2000/532/EC2 been classified as non-hazardous by Sweden nor has any waste not classified as hazardous in the List of Waste been classified as hazardous. However legislation exists under sections 12 of the Ordinance of waste to enable the Swedish EPA to issue regulations laying down that certain waste should be considered hazardous and under section 13 that the county administrative boards in Sweden may in each case decide, and notify the EPA, that a particular hazardous waste should not be regarded as hazardous if certain conditions are met.

In the United Kingdom Article 7 is transposed in England and Wales by the Hazardous Waste (England and Wales) Regulations 2005, as amended and the List of Waste (England) Regulations 2005. The List of Waste (England) Regulations 2005 implement in England Commission Decision 2000/532/EC (“the List of Wastes Decision”, as amended by Decisions 2001/118/EC, 2001/119/EC and 2001/532/EC) which adopted the List of Wastes. The Hazardous Waste (England and Wales) Regulations 2005 define hazardous waste for the purpose of implementing Directive requirements in England and Wales. The Regulations provide that a waste is hazardous if it is listed as a hazardous waste in the Regulations. The Regulations provide that the List of Wastes has effect for purposes connected with the regulation of waste and hazardous waste, and in particular for determining whether a material or substance is a waste or a hazardous waste, and the classification and coding of wastes provides that the Introduction to the List of Wastes has effect for the purposes of interpreting the list, for determining whether a waste is hazardous and in identifying the waste.

The Regulations give effect, for the purposes of the regulation of waste and hazardous waste, to the six digit codes and two and four digit chapter headings in the List of Wastes. They provide that any requirement (or condition) in any legislation that the correct six digit code is to be given is only complied with (or satisfied) if the code in the List of Wastes for the waste concerned is given. The Regulations provide for the asterisk in the List of Wastes to indicate that the waste concerned is hazardous, and also provides that, for dangerous substances to be hazardous where a limit value of concentration applies, the waste is only hazardous where the limit value in regulation 4, or Annex III to the Waste Framework Directive, is satisfied. Regulation 4 sets out the limit
values of concentration contained in Article 2 of the List of Wastes Decision. The Regulations also give the Secretary of State a duty to designate as hazardous, wastes which are not on the list but exhibit hazardous properties. In individual cases, determinations that a waste is or is not hazardous can also be made.

In Northern Ireland and Scotland, the classification system is also based on the European Waste Catalogue, as transposed by the Hazardous Waste (Northern Ireland) Regulations 2005 and the List of Wastes Regulation (Northern Ireland) 2005. In Scotland the Article is transposed through the Waste Management Licensing (Scotland) Regulations 2011, with the definition contained in the Special Waste Regulations 1996, whilst in Gibraltar the waste classification system used is pursuant to Article 1 (A) of Directive 75/442/EEC on waste and Article 1(4) of Directive 91/689/EEC on Hazardous Wastes. (Schedule 11A section 192KA of the Public Health Act). Gibraltar follows Directive 2000/532/EC on Lists of Waste for waste classification purposes. At the present time no waste that has been classified as hazardous waste in the List of Waste established by Commission Decision 2000/532/EC2 been classified as non-hazardous by the United Kingdom nor has any waste not classified as hazardous in the List of Waste been classified as hazardous.

3.2.3 Classification of Non-Hazardous Waste

Question (3) (iii): Does the classification system of the Member State for non-hazardous waste deviate from the European List of Waste?

The requirements of Article 7 also allow Member States to deviate from the European List of Waste in their classification of non-hazardous waste, and the purpose of Question (3) (iii) is to establish whether they have done so.

23 Member States reported that their classification systems for non-hazardous waste do not deviate in any way from the European List of Waste. The Member State replies are provided in detail below.

Only Finland and Poland reported that their classifications systems for non-hazardous waste differ in some way from that of the European Waste List: Finland reported that it has made some minor amendments to broaden the scope of certain definitions within the waste list; and Poland reported that it has made some additions to the waste list to include types of waste specific to the Polish economy.

Member States replies are summarised below:

In Austria, the national list of wastes is based more on material and less on the origin of the waste, as this is more detailed and convenient for the enforcement of waste management legislation. Austrian list of wastes was found admissible by the ECJ in the judgment of 29 April 2004, Zl. C 194/01.

In Bulgaria, the classification system for non-hazardous waste does not deviate from the European List of Waste.
In **Croatia** the classification system for non-hazardous waste does not deviate from the European List of Waste.

In **Cyprus**, the classification system for non-hazardous waste does not deviate from the European List of Waste.

In the **Czech Republic**, the Waste Catalogue has kept pace with amendments to Commission Decision 2000/532/EC and currently there are no differences in the classification of waste.

**Denmark**'s classification system for non-hazardous waste does not deviate from the European List of Waste.

In **Estonia**, the classification system for non-hazardous waste is the same as that of the European List of Waste, but some types of waste (e.g. waste from the processing of oil shale) and, in certain cases, 8-digit subcategories of waste necessary for some types of waste, have been added. Examples include the waste produced by the treatment of waste electrical and electronic equipment, because separate recovery and recycling targets apply to such waste, and waste metal, the buying up and handling of which is subject to special requirements.

In **Finland**, there are some minor modifications to the titles and entries of the EC list of waste, as detailed in Section 3.1.

In **Germany**, the classification system for non-hazardous waste does not deviate from the European List of Waste.

In **Greece**, the classification system for non-hazardous waste does not deviate from the European List of Waste.

In **Hungary**, the classification system for non-hazardous waste does not deviate from the European List of Waste.

In **Ireland**, the classification system for non-hazardous waste does not deviate from the European List of Waste.

In **Italy**, the classification system for non-hazardous waste does not deviate from the European List of Waste.

In **Latvia**, the classification system for non-hazardous waste does not deviate from the European List of Waste.

In **Lithuania**, the classification system for non-hazardous waste does not deviate from the European List of Waste.

In **Luxembourg**, the classification system for non-hazardous waste does not deviate from the European List of Waste.

In **Malta**, the classification system for non-hazardous waste does not deviate from the European List of Waste.

In **Poland**, certain subgroups and types of waste were added to the waste catalogue, namely waste specifically characteristic of the polish economy, which was assigned codes containing the number 80 or higher (e.g. 10 09 80).
In Portugal, the classification system for non-hazardous waste does not deviate from the European List of Waste. Romania responded that this question was ‘not applicable’, which presumably means that the classification system for non-hazardous waste does not deviate from the European List of Waste (as the country previously reported that the national waste list is based on the European List).

In Slovakia, the classification system for non-hazardous waste does not deviate from the European List of Waste.

In Slovenia, the classification system for non-hazardous waste does not deviate from the European List of Waste.

In Spain, the classification system for non-hazardous waste does not deviate from the European List of Waste. Article 6 of Law 22/2011 of 28 July lays down that waste shall be classified in accordance with the list set out in Commission Decision 2000/532/EC of 3 May.

In Sweden the classification system of the Member State for non-hazardous waste does not deviate from the European List of Waste.

In the United Kingdom the classification system of the Member State for non-hazardous waste does not deviate from the European List of Waste.

**Conclusion:**

All those Member States submitting replies to the Implementation Questionnaire 2010–2012 (25) reported that they have classification systems in place for hazardous and non-hazardous waste in line with the requirements of Article 7 of the Directive in 2010-2012. In the majority of cases Member States reported that the classification systems are identical or very similar to that of the European List of Waste.

Regarding deviation from the definitions of hazardous waste (which are allowed in accordance with Annex III to the Directive) no countries reported that such deviations have been made, although Denmark reported that it has yet to reach a decision on the issue and Italy’s reply was ambiguous as to whether it has in fact done so.

Only Finland and Poland reported that they have deviated from the European List of Waste’s categorisation of non-hazardous waste, with Finland increasing the scope of certain definitions and Poland adding some waste types specific to the Polish economy.

3.3 Extended Producer Responsibility

3.3.1 Measures Targeted at End of Life Products

Question (4) (i): Please describe through which legislative and non-legislative measures the Member State has established extended producer responsibility for any natural or legal person who professionally develops, manufactures, processes, treats, sells or imports products. In particular, has the Member State introduced take-back
obligations for used products or has it taken measures ensuring re-usability or recyclability of products?

Article 8 of the Directive allows Member States to impart some waste management responsibilities upon those placing products on the market. One important way of doing this may be to set an obligation to ‘take-back’ products from consumers at the end of product lifetimes, or to ensure that they can be more easily recovered. Question (4) (i) asks Member States to detail ways in which they implemented the possibilities of this extended producer responsibility allowed by the Directive.

All those Member States (25) submitting replies to the Implementation Questionnaire 2010–2012 described the measures they have taken to implement Article 8. The detailed replies are provided below.

One common measure, especially in central Europe, is to legislate that producers are responsible for financing the collection of packaging waste. Although Belgium did not submit a reply to the Implementation Questionnaire 2010-2012, an alternative data source34 was found which indicated that it has a well-established extended producer responsibility system, including coverage of end of life vehicles.

Best practice is shown by Sweden, which reported that producer responsibility is instigated by separate ordinances for ten types of product: packaging, paper, plastic bottles and metal cans, cars, tyres, electrical and electronic products, batteries, filament bulbs and luminaries, pharmaceuticals and radioactive products and other sources of radiation. Producers are responsible for collecting and treating products that have become waste, or else financing operations which do so. Another example of best practice is the establishment of deposit refund schemes a seen in Demark amongst other Member States, as these have reported that they have succeeded in the recovery of beverage packaging.

Member States replies are summarised below:

In Austria, the extended producer responsibility principle is provided for by Art. 14 AWG 2002. This allows:

- regulation on the prevention and recycling of packaging waste and specific residues and the establishment of collection and recovery systems (VerpackVO 1996);
- Regulation of deposit refunds refillable ECOCYL beverage containers made of plastics,
- Regulation on waste prevention, collection and treatment of end-of-life vehicles;
- Regulation on waste prevention, collection and treatment of electrical and electronic waste; and

• Regulation on waste prevention, collection and treatment of waste batteries and accumulators.

Each of these regulations provides obligations to take-back packaging, end of life vehicles, waste electrical and electronic equipment (WEEE) and waste batteries and accumulators introduced by manufacturers, importers or distributors.

In Bulgaria, Chapter Two ‘Obligations and Responsibilities’, Section II ‘Extended Producer Responsibility’ of the ZUO establishes the principal requirements regarding extended producer responsibility. The measures applying the principle of extended producer responsibility to manufacturers, including persons placing products on the market in the Republic of Bulgaria which, after use, produce ordinary waste (packaging waste, end-of-life vehicles, waste electrical and electronic equipment, waste batteries and accumulators, waste oils and end-of-life tyres) are introduced in the regulations referred to in Article 13(1) of the ZUO for the purpose of encouraging holders to re-use, recycle and otherwise recover such waste. The measures include take-back of such products and of the waste produced after their use, follow-up waste management and financial responsibility for these operations, as well as obligations to provide information to the public about the extent of the product’s re-usability and recyclability. When applying extended producer responsibility, account is taken of technical feasibility and economic viability, as well as of the overall environmental, human health and social impacts, respecting the need to ensure the proper functioning of the market.

Persons placing products on the market which, after use, produce ordinary waste, are responsible for the separate collection and treatment of this waste, as well as for the attainment of the relevant targets for separate collection, re-use, recycling and or recovery, laid down by the regulations referred to in Article 13(1) of the ZUO. Such persons fulfil their obligations:

1) individually; or
2) by joining collective schemes represented by a recovery scheme operator.

Persons placing products on the market which, after use, produce ordinary waste, who fulfil their obligations individually, as well as all their distributors, including persons selling to end-users, are obliged to take-back the waste produced as a result of the use of the respective products at the point of sale, in accordance with the requirements of the regulations referred to in Article 13(1) of the ZUO.

In Croatia, Article 6(2) of the Sustainable Waste Management Act stipulates that the costs of waste management shall be borne by the producer of the product from which the waste came or by the waste producer. Moreover, the regime of extended producer responsibility and encouraging the re-use of products is elaborated in more detail in Articles 42, 43, 44 and 45 of the Sustainable Waste Management Act. Thus Article 42(7) provides the following:

_The producer of a product generating a special category of waste shall, in accordance with the regulation governing the management of special categories of waste, ensure that a product buyer and/or user:_

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Preparation of Implementation Reports on Waste Legislation, including the Waste Shipment Regulation
Page 66 of 392
1. can return the product and/or packaging used,
2. can accept the waste generated by the type of product concerned,
3. has information on the extent to which the product may be re-used and recycled.'

For six special categories of waste (packaging waste, end-of-life vehicles, waste oils, waste batteries and accumulators, waste tyres, and electrical and electronic waste) a fee-charging system has been introduced to finance the system of managing these special categories of waste by applying the principle of extended producer responsibility.

Legal or natural persons that manufacture, import or place on the market of the Republic of Croatia products and/or appliances and equipment are charged fees, and those funds are used to finance the separate collection and recovery of waste generated as a result of the expiry of the shelf life of the products concerned. The management of these six special categories of waste is provided for in the separate rules specified in the reply to question 1, in the List of Documents and Regulations.

Acceptance of waste generated by specific types of products is possible for packaging waste, waste batteries and accumulators, electrical and electronic waste, and medical waste. The aforementioned rules governing specific types of products additionally provide measures aimed at encouraging re-use and recyclability. For example, under Article 12 of the Rules on Packaging and Packaging Waste, a producer who places re-usable packaging on the market of the Republic of Croatia shall be exempt from paying the incentive charge for the packaging of drinks and beverages. The purpose of this charge is to encourage the use of re-usable packaging, and all producers who do not have re-usable packaging in their production programmes must pay it.

Cyprus, further to the EE legislation on WEEE, batteries/accumulators and packaging waste, has introduced the producer responsibility on two more waste streams, namely vehicle tyres and construction and demolition waste. The producer responsibility for vehicle tyres is placed on the importer, through a set of regulations under the Waste Law (Decree KDP 61/2011. The importers of vehicle tyres are obliged to finance individually or collectively a waste tyre management system that involves the collection, store and treatment of vehicle tyres. The producer responsibility for the construction and demolition waste is placed on the producer of the waste (owner of the building in construction/demolition) who has the right to pass this responsibility to the contractor of the project through a set of Regulations under the Waste Law (Decree KDP 159/2011).

In the Czech Republic, in addition to the products governed by the relevant Directives (2006/66/EC, 2002/96/EC etc.), a take-back obligation was introduced in 2001 for tyres and oils, under Section 38 of Waste Act No 185/2001 and Decree No 237/2002 laying down on take-back.

In Denmark, extended producer responsibility for batteries, vehicles, tyres and electronic waste is implemented in Article 9(i) – 9(å) of the Environmental Protection Act and in the Electronic Waste Order, Battery Order, Tyre Order and Waste Management (End-of-Life Vehicles) Order. Extended producer responsibility has also been
implemented through agreements with relevant industry organisations concerning tyres and oil waste. Finally, Denmark’s deposit and return system involves extended producer responsibility for disposable and refillable packaging.

In Estonia, Sections 23 to 27 of the Waste Act establish extended producer responsibility for electrical and electronic equipment and parts thereof, motor vehicles and parts thereof (categories M1, N1 and L2e), batteries and accumulators, tyres and agricultural plastic. The Waste Act lays down the general obligations of producers: the obligation to take-back and collect free of charge; the obligation to ensure the existence of financial security and pay the expenses related to waste handling; the obligation to recover waste (including recycling); and the obligation to enter products in the register of products of concern and to submit to the register of products of concern data on products placed on the market and the quantities of waste collected and recovered.

In accordance with the provisions of the Waste Act delegating authority, a number of Government of the Republic and Minister of the Environment Regulations have been established specifying: the requirements for the marking of products; how the producer or a third person acting on behalf of the producer shall organise the collection and subsequent management of waste; the minimum requirements for waste treatment and requirements for waste management facilities. Furthermore, regulations also provide for the procedure and method for the registration of producers and submission of data. Collection rates (for waste electrical and electronic equipment, waste batteries and accumulators and waste agricultural plastic) and target indicators for recovery and recycling (for waste electrical and electronic equipment, end-of-life vehicles, waste batteries and accumulators and waste agricultural plastic) are established by regulations. The Packaging Act also applies the principle of extended producer responsibility to all packaging placed on the Estonian market.

In Finland, producer responsibility applies to end-of-life vehicles (Government Decree 581/2004), packaging and packaging waste (Government Decision 962/1997), waste of electronic and electrical equipment (WEEE) (Government Decree 852/2004) and batteries and accumulators (Government Decree 422/2008), as required by the EC Directives on ELVs, WEEE, batteries and accumulators and packaging. Additionally, producer responsibility applies in Finland also to waste paper and discarded tyres. There is also a return system for beverage containers which producer of beverage containers can establish (Waste act section 68).

Besides the above mentioned legislative measures, the industry has introduced a voluntary take-back system of impregnated wood. The measures are financed by a recycling fee which is included into the price of new impregnated wood, as well as by waste treatment fees charged from companies. The collection of waste impregnated wood is organized in co-operation with timber companies, builders’ merchants, waste management companies and impregnation plants. Producer organisations regularly launch campaigns to enhance awareness of re-use and recycling of products. As an example, the Finnish Car Recycling had a campaign in 2012 in order to speed up the appropriate recycling of end-of-life vehicles and the renewal of Finland’s motor vehicle population. The Finnish Solid Waste Association, FSWA maintains a webpage of recycling...
points in Finland. With a map application it is easy for everyone to find the nearest recycling options.

The Åland Islands have producer responsibility for end-of-life vehicles, packaging and packaging waste, batteries and accumulators, electronic and electric equipment.

In Germany, § 23 KrWG controls the basic standard of product liability. After that, producers and processors must ensure that products are manufactured and can be used in a way that reduces the production of waste and is in line with the principles of a circular economy. Specific requirements for product responsibility may, inter alia, be established by regulation (§ 23 paragraph 4 in conjunction with §§ 24, 25 KrWG), for example on: packaging; End-of-Life Vehicles; WEEE; batteries; and used halogenated solvents.

In Greece, according to the Law 2939/2001 (OJG 179 A), extended producer responsibility has been adopted within the institutional framework of alternative management. Today the legislation of alternative management covers a number of waste streams: packaging and packaging waste; End-of-Life vehicles (ELV); WEEE; waste oils; waste batteries and accumulators; used vehicles tyres; and construction and demolition waste. Under this legislation producers are obliged to receive waste products after their use and undertake the cost of management. This is achieved through the legal obligation of the producers to organise or participate in Producer Responsibility Organisation (PRO) Schemes. These schemes may be individual or collective, and the participation in them is accompanied by financial contribution.

In Hungary, pursuant to Article 8 of Act XLIII of 2000 on Waste Management (‘the Waste Management Act’), producers are obliged to receive or take-back used products and the wastes from products distributed by them in the country from distributors and users in compliance with the rates and requirements set out for certain products and product groups in a separate piece of legislation, in order to re-use, recover, or dispose of them in an environmentally sound manner.

In accordance with the principle of shared responsibility, producers may transfer the fulfilment of the take-back obligation to distributors or authorised waste treatment entities. Distributors are obliged to ensure the take-back of the products and their packaging, as well as their wastes from users, the distribution of which is carried out by them on the basis of an agreement with the producer.

In Ireland, Section 28(3) and Section 28(4) of the Waste Management Act establish provisions for producer responsibility on waste prevention and minimisation while Section 29(3) and Section 29(4) of the Waste Management Act establish enabling provisions for the implementation of producer responsibility on waste recovery. The Waste Management (Packaging) Regulations, 2007 (S.I. No. 798 of 2007) are designed to promote the recovery and recycling of packaging waste. They are intended, in particular, to facilitate the achievement of the targets for the recovery of packaging waste established by Directive 94/62/EC on packaging and packaging waste. The Regulations provide for producer responsibility in that producers who participate in an approved compliance scheme are exempt from certain requirements of the regulation. Similar Waste Management Regulations also exist for: Batteries and Accumulators; Farm
Plastics; Tyres and Waste Tyres; End-of-Life Vehicles; and WEEE. In addition, provisions are made on construction and demolition waste.

Non-legislative measures have also been taken to improve the management of the various waste streams subject to producer responsibility obligations, such as dedicated guidance for distributors (retailers), including distance sellers and advertisers of electrical and electronic equipment and batteries, and significant research projects undertaken in relation to packaging.

In Italy, the Government has determined in Article 178 of Legislative Decree No 152/2006 that in order to strengthen prevention and to encourage the efficient use of resources, the rules and criteria for the introduction of extended producer responsibility may be adopted by means of one or more decrees of the Minister of the Environment. For this purpose, rules and criteria may be adopted by means of one or more decrees of the Minister of the Environment on the following:

1) waste management and the related financial responsibility for producers of the product;
2) publication of information as to the extent to which the product is re-usable and recyclable;
3) the design of products aimed at reducing their environmental impacts;
4) the design of products aimed at reducing or eliminating waste in the course of the production and subsequent use of products, ensuring that the recovery and disposal of products that have become waste take place in accordance with the criteria set down in Articles 177 and 179;
5) to encourage the development, production and marketing of products that are suitable for multiple use, that are technically durable and that are, after having become waste, suitable for proper and safe recovery and environmentally compatible disposal.

Article 180-bis of the above-mentioned consolidated act on the environment provides that the Ministry of the Environment shall adopt measures to promote the re-use of products and preparing for re-use, if necessary through the introduction of extended producer responsibility. Also, the prevention programme directs the legislative activity of the Ministry on preparing for re-use specifically towards certain waste streams.

In Latvia, waste disposal and the sale or utilisation of certain goods for the purposes of economic activity are subject to natural resource tax (NRT). The purpose of NRT is to promote the economically efficient use of natural resources, mitigate environmental pollution, reduce the manufacturing and sale of environmental pollutants, promote the implementation of new environmentally friendly technologies, support the sustainable development of the national economy as well as render financial support to environmental protection measures.

As regards waste management, NRT is imposed on: waste disposal; environmentally harmful goods; packaging and disposable tableware; and vehicles. The NRT rates are differentiated depending on the environmental impact produced by a particular category of taxable items. The rates are also established so that they encourage the reduction of
both generated and disposable waste. The taxation system implements the polluter-pays principle.

The taxable person for NRT purposes is the one first in the territory of the Latvia to:

1) sell environmentally harmful goods or packaged goods;
2) use environmentally harmful goods for the purposes of its economic activity, which does not refer to goods that are taxable upon the sale or goods purchased in packaging (also the primary, secondary and tertiary packaging imported together with goods) except for packaged goods that are taxable upon the sale;
3) sell disposable dishware and cutlery via public catering and retail facilities in the Republic of Latvia; or
4) register vehicles in Latvia on a permanent basis for the first time.

In Lithuania, extended producer responsibility is implemented by legislative measures. The principle of extended producer responsibility applies to producers and importers of packaging, taxable products (tyres, accumulators, batteries, fuel or oil filters for internal combustion engines, intake air filters for internal combustion engines, hydraulic (oil) dampers for cars), electrical and electronic equipment (hereinafter “EEE”), vehicles and oil.

Producers and importers are obliged to organise the management of waste resulting from the use of their products. To fulfil this obligation, producers and importers must finance the collection, transportation, preparation for use and recovery of relevant waste, as well as information of the public. In accordance with the procedure established by the Rules on Keeping Records for the Supply of Products and Waste Management Reporting adopted by Order No D1-290 of 27 May 2009 of the Minister for the Environment of the Republic of Lithuania (Official Gazette, 2009, No 65-2598; 2012, No 68-3483), producers and importers shall submit annual reports to the Environmental Protection Agency. Fulfilment of their obligation to organise and finance the management of relevant waste may be proven by submitting documentary proof of the elimination (recycling or other forms of recovery) of waste in the form prescribed in the Procedure for Issuing Documentary Proof of Elimination of Product and/or Packaging Waste adopted by Order No D1-359 of 20 May 2013 of the Minister for the Environment of the Republic of Lithuania (Official Gazette, 2013, No 53-2652), which may only be issued by those waste managers who are listed in accordance with the procedure established by the Procedure for Establishment of the List of Waste Managers Authorised to Issue Documentary Proof of Elimination of Product and/or Packaging Waste adopted by Order No 184 of 14 April 2003 of the Minister for the Environment of the Republic of Lithuania (Official Gazette, 2003, No 42-1958; 2013, No 14-685; 2013, No 95-4732).

In Luxembourg, Article 8 of the Directive is transposed into national law in Article 19 of the Law of 21 March 2012. The person or company that develops, manufactures, processes, treats, sells or imports products (producer of the product) may be subject to the regime of extended producer responsibility. In Luxembourg, the principle of extended producer responsibility currently exists for the following categories: packaging,
electrical and electronic equipment, vehicles and batteries and accumulators. Take-back obligations and the terms of waste management are set by Grand-Ducal regulation.

In Malta, Article 8(1) – (2) regarding extended producer responsibility has been transposed by Schedule 7 of the Waste Regulations (LN184/11; as amended). This Schedule provides that the Competent Authority may introduce legislative measures for producers of oils, tyres and other specific products not regulated by existing national or Community legislation, or third parties acting on their behalf. Malta implements the extended producer responsibility for packaging, electrical and electronic equipment, vehicles and batteries placed on the Maltese market through national regulations.

For example, producers or third parties acting on their behalf shall, with respect to packaging waste arising from their activities, use existing systems or set up systems, individually or collectively, or both, in accordance with any existing laws and regulations, to provide for:

1) the return and, or collection of used packaging and, or packaging waste from the consumer, other final user, or from the waste stream in order to channel it to the most appropriate waste management alternatives;
2) the re-use or recovery including recycling of the packaging and or packaging waste collected;
3) the use of materials obtained from recycled packaging waste for the manufacturing of packaging and other products.

Poland has established extended producer responsibility for packaging, batteries and accumulators, vehicles, electrical and electronic equipment, lubricating oils and tyres. In accordance with the Act of 11 May 2001 on Businesses’ Obligations regarding Management of Certain Types of Waste and on the Product Fee, entities placing products (lubricating oils and tyres) or products in packaging on the market are required to ensure recovery, in particular recycling of packaging waste and after-use waste.

Moreover, in accordance with Article 10 of the Act of 11 May 2001 on Packaging and Packaging Waste, Poland imposed on entities placing packaging containing hazardous agents on the market an obligation to determine a deposit on pre-packages (not lower than 10 % and not higher than 30 % of the price of a hazardous agent in such packaging). The user of hazardous agents is required (under Article 17 of the above-mentioned Act) to return reusable packaging and packaging waste to the seller, who subsequently returns them to the producer. Moreover, retail units with an area exceeding 25 m2 that sell drinks in non-reusable packaging are required (under Article 13 of the above-mentioned Act) to offer also similar products in reusable packaging. They are also required (under Article 14 of the above-mentioned Act) to accept for return and exchange reusable packaging for products in such packaging that they offer.

In Portugal, except for streams of used cooking oils and used tyres, all the remaining streams (packaging waste, waste electrical and electronic equipment, waste batteries and accumulators, end-of-life vehicles) are governed, at Community level, by specific or general directives, such as the Waste Framework Directive, in the case of streams of C&DW (construction and demolition waste) and used mineral oils, transposed in good time into national law and communicated to the European Commission.
Accordingly, the management of specific streams, such as that of End-of-Life vehicles, electrical and electronic equipment, batteries and accumulators and tyres, is based on the principle of extended producer responsibility (EPR); in the packaging stream, the responsibility for management is entrusted to the packager of the packaged product responsible for placing it on the market. In the cases of waste from construction and demolition and used cooking oils, despite the fact that the various economic operators involved in the life cycle have been made jointly responsible, that principle is not applied, and instead responsibility lies with the producer/holder of the waste.

Accordingly, and on the basis of the directives on waste streams based on the application of EPR in qualitative prevention through prohibiting the use, above certain thresholds, or even the phasing out of certain hazardous substances in the composition of the products to be placed on market, and on the obligation, at their end-of-life, to ensure that they are collected and managed separately in accordance with the waste hierarchy (usually associated with the attainment of targets, not exclusively for re-use, but for re-use/recycling and/or re-use/recovery), the producer, regardless of whether it has responsibility for complying with those obligations or has transferred it to a management body, contributes to ensuring that waste from its products is taken back and managed properly.

In Romania, extended producer responsibility applies, through legislative measures, in case of packaging waste, waste management of electrical and electronic equipment, batteries and accumulators, and tyres. Thus, the manufacturer/seller on the domestic market of such products is financially liable for what remains after those products have completed their lifecycle. Said manufacturers/sellers must take-back or manage them in an organised system of handing over this responsibility to a third party (collective organisation). Within this system, manufacturers are also compelled to make available to the general public the necessary information with regards to the re-usability and recyclability of the products.

For prevention, re-use, recycling and other forms of waste recovery, the central public authority for environmental protection promotes, or, if appropriate, proposes legislative or non-legislative measures whereby the product manufacturer, authorised natural person or legal person that, in a professional capacity, designs, manufactures, processes, treats, sells or imports products, is subject to extended producer responsibility. (Article 12 of Law no 211/2011)

At the same time, the Romanian authorities started a reassessment of the law on waste streams, pursuant to the publication of the results of the study conducted for the European Commission ("Development of guidance on Extended Producer Responsibility (EPR)") by Arcadis, Ecologic, and the Institute for European Environmental Policy (IEEP), and Umweltbundesamt (UBA).

In Slovakia the requirements of Directive 94/62/EC, Directive 2000/53/EC, Directive 2002/96/EC, and Directive 2006/66/EC are transposed into the Waste Act, Act No 119/2010 on packaging and on amendment to Act No 223/2001 Col. on waste and on amendment and supplementation of certain laws as amended (hereinafter referred to only as "Packaging Act") and into their legal provisions. Even before the transposition of
Directive 2008/98/EC on waste, the Waste Act and the Packaging Act set forth a number of obligations on extended producer responsibility. These include stipulations in the Act on Waste that distributors of electrical and electronic equipment shall be obliged to carry out a take-back collection of waste electrical and electronic equipment (hereinafter only “WEEE”) from private households, and that producers of vehicles and vehicle parts ensure that the share of recycled materials used in vehicles increases, as long as the vehicle safety is not thereby compromised.

Producers of electrical and electronic equipment, with the exception of distant producers of such equipment shall be obliged to ensure that the equipment is produced and designed in compliance with special provisions so as to facilitate dismantling and recovery, especially the re-use and recycling of WEEE. The producer, especially, must not use specific construction components or production approaches that would preclude the re-use of WEEE, if such specific construction components or production approaches do not offer important advantages in relation to protection of the environment or in relation to the health and safety requirements. Also, electrical and electronic equipment placed on the market should be marked with a graphical symbol stipulated in generally binding regulation for the purposes of take-back collection or separate collection; if the equipment cannot be marked in this way due to its dimension or functionality, the mark shall be attached to its packaging, instructions for use and warranty sheet.

The Packaging Act requires that, among other things, the person who puts into circulation drinks in packages that are not reusable shall be obliged to put into circulation, at the place of their sale, drinks of the same kind packaged in reusable packaging if these drinks have been placed inside this packaging on the Slovak market. Also packaging must be designed, produced and placed on the market or put into circulation in such a way as to meet the basic requirements for their composition and properties and to allow its re-use or recovery including energy recovery, recycling, and organic recycling, and to comply with the requirements stipulated by harmonized standards. Furthermore, the one who places on the market products in returnable, reusable packaging shall be obliged to collect returnable and reusable packaging of the same kind and type that has been placed on the market or put into circulation.

In Slovenia, Article 20(6) of the Environment Protection Act states that the government shall determine the cases and conditions under which a legal entity or natural person that develops, manufactures, processes, treats, sells or imports products (a producer of products) partly or wholly ensures that the products and the waste generated after use of these products are handled in such a way as to promote re-use, waste generation prevention and the recovery of waste, relating in particular to:

1) the take-back of waste generated after use of the product and ensuring that it is handled as prescribed;
2) the method and conditions for individual or collective compliance with the obligations of producers of products;
3) the scope of the obligations of producers of products or their associations, and the targets that they must meet in implementing those obligations;
4) the establishment and operation of an information system for monitoring implementation of the obligations of producers of products; and

5) the provision of information to the public on the possibilities of reusing and recycling products and on other methods for recovering waste generated after the use of products.

Article 3 of the Decree on the Management of Packaging and Packaging Waste defines the controlled circulation of returnable packaging as the circulation of returnable packaging within the system of the controlled re-use and distribution of packaging so as to achieve the highest possible level of return of packaging within the circulation system; packaging may only be separated from this system using a specially controlled procedure. Under Article 38 of the Decree, persons obliged to handle waste packaging are given an incentive to introduce packaging that circulates as returnable packaging within the controlled circulation system for returnable packaging, since such waste is not subject to the requirement to put in place the management processes prescribed for waste packaging. They are obliged to meet their obligations only for a quantity of packaging that is equal to the quantity of new packaging included in the controlled circulation of returnable packaging resulting from an increase in the volume of packaged goods in returnable packaging or from the replacement of the quantity of packaging which was rejected after use or not returned after use to the controlled circulation of returnable packaging.

In **Spain** Title IV (Articles 31 and 32) of Law 22/2011 of 28th July is concerned with extended producer responsibility. Although extended producer responsibility already existed in Spain this new legislation provides a systematised, consistent legal framework by which producers of products that become waste are involved in the management and promotion of the prevention, re-use, recycling and recovery of waste. Article 31(2) lays down the obligations to which producers may be subject, by means of the pertinent regulatory development, both in the design and production phase of their products as well as during the management of the waste arising from the use thereof.

In terms of the way of addressing these obligations, Article 32 of the Law enables producers of the product to do so individually or collectively. A permitting scheme is envisaged for the latter case, with the participation of the coordinating committee on waste, where the authorities responsible for waste are present, which ensures uniform behaviour for these collective schemes throughout the entire country. Individual producers, however, are not subject to this administrative permitting scheme, but instead must provide advance notice at the start of their activity, in keeping with the principle – which also guides the Law – of facilitating access to the public and businesses and engaging in service activities.

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35 Extended producer responsibility had already been regulated through Law 11/1997 of 24 April on packaging and packaging waste, and through Title II of Law 10/1998 of 21 April on waste, a legal basis that made it possible to enact various royal decrees applying this extended producer responsibility to specific waste streams.
In addition to this general regulation included in the Law, extended producer responsibility has been specifically regulated for the following waste streams:

1) The current legislation in which extended producer responsibility is regulated, arising from Community legislation, is:
   d. Royal Decree 106/2008 of 1 February on batteries and accumulators and the environmental management of their waste.
   e. Royal Decree 219/2013 of 22 March on restrictions on the use of certain hazardous substances in electrical and electronic equipment.

2) The legislation currently in force in which extended producer responsibility is regulated by Spain’s own initiative is:
   b. Royal Decree 679/2006 of 2 June regulating the management of waste industrial oils.

The majority of this legislation lays down the obligation on the part of the producers to accept the return of products once used (packaging, WEEE, tyres, batteries), who may fulfil this obligation in various ways (setting up a deposit, refund and return system, participating in a collective extended responsibility scheme (formerly called integrated management schemes (SIG), participating in public management schemes, etc.). In relation to the measures ensuring the re-use or recyclability of products, all the laws cited include an article that specifically addresses the creation, by producers, of corporate prevention programmes, which are approved by the competent authorities of the autonomous communities and updated regularly (every three or four years depending on the waste stream in question). These corporate prevention programmes must identify applicable mechanisms to extend the useful life of products and to facilitate re-use and recycling.

In Sweden provisions on producer responsibility are issued under the rules in chapter 15, section 6-7a of the Environmental code. In Sweden there is a legislated producer responsibility for ten product areas: packaging, paper, plastic bottles and metal cans, cars, tyres, electrical and electronic products, batteries, filament bulbs and luminaries, pharmaceuticals and radioactive products and other sources of radiation, one ordinance for each category. The producer responsibility includes collecting and treating products that have become waste, and the financing of the costs for this. For example, according to section 15 of the Ordinance on producer responsibility for electrical and electronic equipment, the producer shall fulfill his producer responsibility by ensuring that there are one or several appropriate collection systems for their products when they become waste, and that the upcoming waste delivered to the collection systems or directly to the
producer will be carried away, pretreated, re-used, recycled, energy recovered or disposed of under environmentally sound management.

For the following areas the industry has organized voluntary commitments for re-use or recycling, resembling the producer responsibility:

- office paper;
- construction and demolition waste – a return system for pallets developed by and for the Swedish construction industry and a system for recycling all kinds of gypsum and plasterboard waste; and
- agricultural plastics.

In the United Kingdom the principle of “Producer Responsibility” has been applied to four types of product in Great Britain [England, Wales & Scotland] via legislative measures covering packaging, vehicles, electrical/electronic equipment and batteries. In board terms the legislation aims to make the producers of packaging, batteries, etc. (i) pay for the costs of collecting, processing and recycling/recovering these materials when they become waste and (ii) minimise the amount of waste sent for disposal:

- Producer Responsibility Obligations (Packaging Waste) Regulations 2007 (as amended):
  - Placing an obligation on companies that produce packaging and handle packaging to ensure that a proportion of the packaging they handle is recovered and recycled.
- The Waste Batteries and Accumulators Regulations 2009:
  - Requirements on producers and distributors to contribute to the collection, treatment and recycling of waste batteries.
- The Waste Electronic and Electrical Equipment Regulations 2006 (as amended):
  - Introduced compulsory compliance schemes for producers of EEE to arrange for the collection, treatment and environmentally sound disposal of an amount of WEEE based on market share.
- The End of Life Vehicle (Producer Responsibility) Regulations 2005 (as amended):
  - Require producers of ELVs to provide a network of facilities where ELVs can be taken for dismantling and environmentally friendly recycling at no cost to the final owner.

In Northern Ireland the equivalent legislation is:

- The Producer Responsibility (Packaging Waste) Regulations (Northern Ireland) 2007 (as amended).
- The Waste Batteries and Accumulators (Treatment and Disposal) Regulations (Northern Ireland) 2009.

The Courtauld Commitment is a voluntary agreement between the UK Governments and food retailers and manufacturers. Courtauld Commitment 2 commenced in 2010 and ended in December 2012. This voluntary agreement moved away from solely weight-
based targets to measure packaging reductions in terms of carbon impact. The second phase aimed to tackle waste within the supply chain as well as the home. On packaging the voluntary agreement seeks to reduce the weight, increase recycling rates and increase the recycled content of all grocery packaging, as appropriate. The target to reduce the carbon impact of grocery packaging was 10% which represents a CO2 saving in excess of a million tonnes. The supply chain target on reducing traditional grocery product and packaging waste in the supply chain was 5% including both solid and liquid wastes.

- To date, 2.3 million tonnes of waste have successfully been prevented by Courtauld signatories and consumers.
- The packaging target is on course, at more than three quarters of the way towards the target of a 10% carbon reduction (2009 baseline). There has been a considerable 8.8% reduction in supply chain waste (2009 baseline) which is well ahead of the 3-year target of 5%. The second year results are encouraging given they have been achieved alongside an increase in volume sales among signatories.

3.3.2 Design of Products

Question (4) (ii): Which measures has the Member State taken to encourage the design of products such as to reduce their environmental impacts and the generation of waste in the course of the production and use of products and the subsequent management of products that have become waste?

Article (8)(2) provides that extended producer responsibility may include measures taken by producers at the design stage to decrease subsequent levels of product waste and make any waste generated easier to recover. Question (4) (ii) asks Member States to detail any measures they have implemented in this regard.

21 Member States submitted details of product design measures implemented in line with Article 8 (2). The detailed replies are provided below.

In addition Austria, the Czech Republic, Italy and Luxembourg all reported that they have legislation in place around the issue, but did not give specific examples of measures actually in place.

An example of best practice comes from Denmark, which reported that it has established taxes on packaging, a tool focussed on the economics of production and therefore highly likely to influence product design. Another good initiative comes from Germany, which reported that energy consumption is the driving consideration behind eco-product design and a mark has been created which products can display to demonstrate their performance in this rea.

Member States replies are summarised below:

Austria reported that measures have been taken to ensure the reusability or recyclability of products during their manufacture or to improve the environmental impact of products and to reduce the associated generation of waste.
In **Bulgaria**, the legislative measures concerning the products which, after use, produce ordinary waste are established in the regulations on ordinary waste and include requirements on manufacturers of EEE and materials and components for EEE to facilitate the pre-treatment and recovery and in particular the re-use and recycling of WEEE as well as of its materials and components in the product design process, and on manufactures of packaging waste to ensure that packaging must be manufactured in such a way as to enable the recycling of a certain percentage by weight of the materials used into the manufacture of the same packaging.

In **Croatia**, the measures taken to encourage the design of products so as to reduce their adverse environmental impacts and the generation of waste in the course of the production and subsequent use of such products are described in Articles 42, 43, 44 and 45 of the Sustainable Waste Management Act, in the Waste Management Strategy of the Republic of Croatia, and in the Waste Management Plan of the Republic of Croatia for 2007–2015. An example of such a measure is producers shall use raw materials, materials, semi-products and packaging that reduce the use of energy and materials and environmental impacts, and reduce the generation of waste in the course of the production and subsequent use of products. Additional measures encouraging the design of environmentally friendly products for specific categories of products are provided in separate rules specified in the reply to question 1, in the List of Documents and Regulations.

In **Cyprus**, no legal measures have been taken so far. However, the design of more environmental friendly products is promoted through environmental awards. The Department of Environment is promoting these awards every two years while the Green Dot Cyprus (the collective system for packaging) is promoting similar awards each year.

In the **Czech Republic**, there is a general requirement already enshrined in Environment Act No 17/1992, Section 17 (1) of which states that everyone is obliged, especially through measures taken directly at the source, to avoid pollution of or damage to the environment and to minimise the unfavourable consequences of his or her activity on the environment. Additional measures focusing directly on products are implemented in legislation regulating eco-design, in particular in Energy Management Act No 406/2000.

In **Denmark**, there are taxes on packaging for many products. Since 1978, a volume-based tax has been levied on packaging for most beverages. The tax is levied on new packaging and therefore gives an incentive to recycle refillable packaging or minimise packaging. Since 1994, a weight-based tax has been levied on paper and plastic carrier bags, while a tax has been imposed on disposable tableware since 1988. Both taxes provide an incentive to increase re-use and thereby reduce the quantities of waste that are generated. Work is under way on the use of ‘green purchases’ as a tool for promoting a transition to ‘green products’. This benefits the environment, strengthens private undertaking, etc. Under Waste Strategy ‘10, studies have been conducted which will help to promote the incentive to develop electrical and electronic equipment with a more environmentally friendly design, which takes into consideration the environmental impact associated with the subsequent waste management as early as the production phase.
In **Estonia**, measures on product design are laid down as general requirements in Sections 21, 24 and 27 of the Waste Act. When manufacturing or importing products, producers are required to prevent waste generated from the products from causing any excessive hazard to health, property or the environment. When manufacturing or importing products, producers are also required to ensure that products have the longest possible life span, are re-usable and recoverable to a large extent and do not contain certain hazardous substances. Producers are further required to promote the integration of secondary raw materials in the manufacturing of products.

More specific requirements for the collection and subsequent management of products, including target indicators for recovery and recycling, are in place in order to ensure that the waste resulting from products is recovered to a larger extent. The fulfilment of the above requirements is checked through reporting and direct supervision of the fulfilment of the requirements is carried out by the Environmental Inspectorate.

In **Finland**, Section 9 of the Waste Act 646/2011 sets the general obligations for the product manufacturer, market supplier and distributor. Product manufacturers shall ensure as far as possible, among other things, that:

- raw materials are used sparingly in production, and that waste, raw materials produced from waste, or recycled products or components thereof, are used in production;
- the use of raw materials which include substances harmful to human health and the environment is avoided in production, and such raw materials are replaced with less harmful ones;
- the product is not unnecessarily packaged; and
- the product is durable, repairable and re-usable and recoverable as waste, and that the product and the use thereof generates as little waste as possible.

The party releasing the product onto the market, and the distributor, shall ensure, insofar as possible, that the product fulfils the above requirements, and that the product is labelled, and communications and information thereon are duly provided. If the manufacture, use or discarding of a product generates waste which is known to, or can justifiably be expected to, cause significant harm or complications to the organisation of waste management, or cause hazard or harm to human health or the environment, the manufacture, placing on the market, export or use of the product may be prohibited or restricted or subjected to preconditions. The Act on Eco-design of products and energy labelling 1005/2008 sets the obligations for product design of energy-related products. Also the national implementation of the RoHS (Restriction of Hazardous Substances) Directive (2011/65/EU) and the Waste Electrical and Electronic Equipment (WEEE) Directive (2002/96/EC) is expected to have an impact on product design and waste management.

In the Åland Islands the Sector 4 of the Waste Act 1981:3 stipulates rules for reducing environmental impact and generating of waste. The authority together with NGOs and different companies has been participating in The European week about waste reduction for five years.
In **Germany**, the eco-design of products is based on the law on energy consumption, and compliant products are able to bear a marking identifying them as such. Depending on the product group, additional standards may be required, however. Other measures designed to encourage waste prevention and reduce environmental impacts include the Packaging Ordinance, which includes provisions on household collection and recycling of packaging and heavy metal limit values for packaging. Measures are also in place around the product design of vehicles and batteries.

**Greece** has incorporated the European regulatory framework which has set rules for the composition and manufacture of products as well as the reduction of their hazardous properties, this framework consisting of:

- Directive 2011/65/EU, transposed by the PD 114/2013 (OJG 147 A), which sets the rules for the restriction of use of hazardous substances in the electric and electronic equipment (EEE) and aims at protecting human health and environment, including sound environmental recovery.
- Directive 2000/53/EK transposed by the PD 116/2004 (OJG 8 A), which comprises terms and conditions concerning the composition, the manufacture and the possibility for re-use and recovery of vehicles.
- Directive 94/62/EK transposed by the Law 2939/2001, which sets the terms and conditions concerning the packaging composition and manufacture.
- The institutional framework for the ecological planning of the energy connected products (Directive 2009/125/EK).
- The eco-label (EU Ecolabel), which is voluntary and granted by the Greek Superior Council of Eco-label (ASAOS).

In **Hungary**, pursuant to Article 6 of the Waste Management Act, producers must design products and product packaging, and must implement technology and product development, in a manner to ensure the most efficient material and energy uses available and to facilitate the re-use of the product, and an environmentally sound treatment, recovery or disposal after it has become waste. Producers shall prefer raw/basic materials and semi-finished products intended for the same purpose, products made therefrom and means of packaging, the production and uses of which are associated with lower material and energy needs and generate less waste. Act CLXXXV of 2012 on waste (‘the Waste Act’), which entered into force on 1 January 2013, lays down similar principles in relation to producer responsibility.

In **Ireland**, design measures include:

- Packaging – Repak, the approved packaging compliance scheme, has two packaging technologists who visit companies and advise about packaging prevention/design approaches.
- Batteries and Accumulators – the Waste Management (Batteries and Accumulators) Regulations 2008 are designed to promote the recycling of waste batteries.
- Tyres – the Waste Management (Tyres and Waste Tyres) Regulations 2007 are designed to maximise the re-use, recycling and recovery of waste tyres.
• ELVs – Regulations 27, 28, 29 and 30 of the Waste Management (End-of-Life Vehicles) Regulations 2006 (S.I. No. 282 of 2006 set out requirements on vehicle producers in terms of design requirements, such as limiting the use of hazardous substances).

• RoHS – Regulation 5 of the European Union (Restriction of Certain Hazardous Substances in Electrical and Electronic Equipment) Regulations 2012 restricts the levels of specified hazardous substances in components/materials of EEE.

• Cleaner Green Production Programme (CGPP) Eco-design Research funding.

Management measures include:

• Packaging – The Waste Management (Packaging) Regulations 2007 ensure that packaging waste is segregated and recycled and recovered as far as possible.

• Batteries and Accumulators – Two battery collections schemes are in operation to recycle batteries that have become waste.

• Farm Plastics – a farm collection scheme is in operation to recycle farm plastics that have become waste.

• Tyres – the Waste Management (Tyres) Regulations 2008 provide for the proper management of any tyres that have become waste.


• C & D Waste – C&D Waste Management Guidelines ensure that waste is segregated from sites covered by the guidelines.

In Italy, the Ministry of the Environment has applied the principle of extended producer responsibility to a specific waste stream: end-of-life tyres. Article 228 of consolidated act on the environment effectively states that ‘in order to continue striving for environmental protection in accordance with the best available techniques, optimising, if necessary through research, development and training activities, the recovery of end-of-life tyres and reducing their formation, if necessary through reconstruction, producers and importers of tyres have an obligation to ensure, individually or in association and at least once a year, the management of quantities of end-of-life tyres equivalent to those marketed by them and destined for sale in the national territory, further undertaking research, development and training activities aimed at optimising the management of end-of-life tyres in accordance with Article 177(1).’

In Latvia the Waste Management Law, the Packaging Law and the End-of-Life Vehicle Management Law lay down the requirements as to the eco-design of certain categories of goods, especially the restrictions on use of various hazardous chemicals.

As provided for by the laws governing the assessment of the effects on the environment, such an assessment must also deal with various potential alternatives, such as those of production processes and raw materials. According to the pollution laws, operators of polluting facilities must employ the best techniques in order to achieve the lowest possible waste generation. In the reporting period, the natural resource tax rate applied to plastic bags added by a trader to a set of goods or products (purchase), whether
packaged or unpackaged, for the customer’s convenience or because of the advertising design, was substantially increased, irrespective of whether or not a separate payment is collected for those bags. As a result, in the reporting period the consumption of plastic shopping bags dropped by almost 42%. At the same time a lower natural resource tax rate was set for packaging made of bioplastics and oxy-degradable plastics, in order to promote the use of more environmentally friendly materials.

The Latvian Packaging Association holds an annual competition entitled “The Best Packaging in Latvia” where one of the categories is “Environmentally Friendly Packaging”, with material intensity as a packaging assessment criterion.

In Lithuania, taking into account the product and packaging waste prevention targets, the priority is given to voluntary agreements with the trade sector, which uses a lot of grouped and transport packaging in its activities, and with beverage producers’ associations in order to preserve and develop the existing re-use schemes and reduce the generation of packaging waste. During the consumption phase, consumers are informed of the possibility to purchase goods with less packaging that are packaged in recyclable economic, i.e. higher-capacity packaging. It should be noted that most of the persons supplying the internal market with such products as EEE and vehicles, who are importers (who import the products to the Lithuanian market), are virtually unable to exercise any influence over the design and production of products.

The tasks involving elimination of relevant waste, which must be carried out by the producers and importers of relevant products, are an essential measure to minimise the environmental impact when handling products that have become waste because producers and importers aim to supply the market with such products whose waste could be handled (recycled or otherwise recovered) as easily as possible. Pursuant to the Procedure for the Use of Funds under the Product or Packaging Waste Management Programme adopted by Order No D1-94 of 4 March 2004 of the Minister for the Environment of the Republic of Lithuania (Official Gazette, 2004, No 41-1346; 2010, No 65-3260), the creation, operation and development of EEE, taxable product and packaging waste management schemes is subsidised under the Product or Packaging Waste Management Programme.

Projects related to the installation of equipment reducing the generation of waste resulting from production or other economic activities were one of the funding channels for 2010–2012 under the programme financed by the Lithuanian Environmental Investment Fund. The public is educated and made aware of waste sorting and the importance thereof, a favourable public opinion is formed on the use of products made from waste.

In Luxembourg, the competent authority can encourage by appropriate means the design of products for the purpose of reducing impacts on the environment and waste during the production and subsequent use of products, and in order to guarantee that recovery and disposal of products which have become waste take place in accordance with Article 9 (waste hierarchy) and 10 (protection of human health and the environment) of the Act of 21 March 2012.
Malta is almost entirely dependent on imports, especially with regards to consumer goods and products. As such the country has little influence on encouraging good design during the manufacturing process.

In Poland, Article 5 of the Act of 11 May 2001 on Packaging and Packaging Waste provides that in order to reduce the environmental impact of a product in packaging, producers, importers and entities making an intra-Community acquisition of packaging should limit the amount and adverse environmental impact of substances used to manufacture packaging and of packaging waste generated.

Under the Act of 20 January 2005 on the Recycling of End-of-Life Vehicles vehicle manufacturers are required to limit the use of hazardous substances in vehicles in order to prevent the emission of these substances into the environment and to facilitate the recycling of end-of-life vehicles, to comply with requirements for the dismantling and re-use of vehicle equipment and parts and for the recovery and recycling of end-of-life vehicles, and to use recycled materials to manufacture vehicles.

Moreover, the Act of 27 April 2001 — Environmental Law provides that an entity placing a product on the market should ensure that the product meets environmental requirements. It also specifies that when manufacturing a product, without compromising its usefulness and user safety, manufacturers should limit the consumption of substances and energy, the use of substances and technical solutions which may adversely affect the environment during and after the useful life of the product, the use of substances and technical solutions hindering the repair and dismantling of the product aimed at separating used components that require special treatment under the Act on Waste and the use of parts of the product in another product or their other uses after the useful life of the product. Article 160 of the Environmental Law Act prohibits the placing on the market or re-use, except as specified in the Act and in separate provisions, of substances particularly hazardous to the environment, which include PCBs and asbestos.

In Portugal, the producer has the option of transferring his responsibility for the management of end-of-life products to a duly licensed management body through the payment of a fee, which may include, in its calculation, a qualitative as well as a quantitative element. With regard to the qualitative factor associated with the amount of the fee, this may be enhanced by means of a subsidy, which takes into account, for example, minimisation of either the use of hazardous substances and materials or the weight/volume of the product, or its impact on the environment, through the adoption of requirements in terms of its design, enabling its re-use, recycling/recovery.

Various situations exist in Portugal: in the case of the End-of-Life vehicles stream, although the management body had the option of applying a fee determined according to the vehicle characteristics, reflecting management principles such as reducing the incorporation of hazardous substances in its manufacture, the incorporation of recycled materials and whether its design facilitates its dismantling, re-use and recovery, it chose not to; in the case of management bodies for the packaging and packaging waste stream, it is intended that future permits governing their activity will adopt that approach.
In **Romania**, the national waste management strategy promotes eco-design and the integration of environmental aspects into the product design in order to improve the product’s environmental performance throughout its lifecycle. Pursuing this line, SNGD introduces prevention as a measure in the production process, as exemplified by:

- Replacing production processes with cleaner alternatives (e.g.: BAT technology);
- Replacing equipment; Redesign (e.g.: eco-design)
- Competitive production (competitive thinking);
- Minimising waste (e.g.: sorting); Improving the control process;
- Optimising processes (adjustments and upgrades);
- Payment mechanisms for treatment and/or disposal that discourage generating waste (pay as you throw scheme); and
- Moreover, in case of generated waste, the principle of industrial symbiosis has been introduced.

In addition to the above, the Ministry of Environment and Climate Change will begin a consultation process with the producers, and especially those producers that place on the market significant amounts, in order to identify the most appropriate measures that would lead to generating less waste in the production cycle and reducing the environmental impact of the products through eco-design.


In **Slovenia**, Article 19(2) of the Environment Protection Act states that prohibitions, restrictions, other rules of conduct, and recommendations for the performance of activities or for consumption are determined by the government, in relation to the following in particular:

1) the registration of an action or activity;
2) production, transport or storage;
3) the training of staff to perform activities;
4) the placing of services or products on the market;
5) the labelling of raw materials, semi-products or products, and other forms of information provision to consumers;
6) specifications for products, services or procedures, and the determination of compliance with these specifications;
7) warnings, signs and security deposits;
8) reductions in the use of materials and energy;
9) reductions in dangerous and harmful substances in raw materials, semi-products or products;
10) the replacement of substances and energy products with those more suitable for the environment;
11) requirements associated with controls of the environmental compatibility of products or technologies in import or transit; and
12) other actions necessary to prevent and minimise environmental burden.

No regulation was adopted pursuant to this Article of the Environment Protection Act in the reporting period as a practical measure for implementation of Article 8(2) of Directive 2008/98/EC.

In Spain the laws regulating extended producer responsibility lay down the requirement of the producers to create corporate prevention programmes. In accordance with these programmes, producers must adopt measures related to the design of their products, in order to reduce their environmental impact and the generation of waste resulting from them. Pursuant to this obligation, there are a number of corporate programmes in force (for glass bottles in: the wine industry, the beer industry and the spirit industry; for packaging from materials other than glass; for tyres, industrial oils, etc.). The majority of these corporate prevention programmes are created by the collective extended responsibility schemes. Moreover, in compliance with the obligation in Article 29 WFD, a draft national waste prevention programme has been created, including four strategic lines, with their priority areas, which sets out a series of prevention measures classified according to the provisions of Annex IV WFD for the priority areas identified. For many of these areas, a measure is defined on the need to promote R&D&I projects geared towards eco-design and establishing voluntary agreements to reinforce its application.

At autonomous community level, some of the waste prevention plans approved by the autonomous communities (e.g. Galicia’s plan) feature actions to boost the eco-design and recyclability of products, including aid to companies and economic activities for studying eco-design measures and boosting research in areas such as the development of eco-design to promote prevention at source, especially in packaging and WEEE, life cycle studies and promoting a pilot on the use of reusable nappies.

In Sweden there are provisions on design of products in section 1 of the Ordinance on producer responsibility for electrical and electronic products and section 1 and 1a of the Ordinance on producer responsibility for packaging. Regarding electrical and electronic products, the provisions on design concerns waste prevention and the possibility to re-use and recycle equipment. Regarding packaging, the provisions on design focus on restricting the weight and volume to the level that is needed to achieve good safety and hygiene.

Further, some of the goals and voluntary measures in the proposal for a national waste prevention program are aimed at stimulating the design of products to minimize environmental impact and waste generation. The program will most likely be adopted on the 12th of December 2013.

In the United Kingdom the following measures have been undertaken:

- WRAP and Recoup, a UK Packaging Industry Trade Association, have both developed on-line recyclability tools to assist industry in designing their packaging in a more sustainable way.
WRAP also provides a Packaging Research Listing which summarises all the resources (guidance, tools and research) produced by WRAP to support taking action to reduce packaging waste, an index to packaging optimisation reports and case studies.

Voluntary agreements, such as the Cortaldo Agreement on food and packaging as backed by the various governments across the UK, contain targets on design for recyclability, waste prevention and use of recycled materials. The Sustainable Clothing Action Plan is working similarly to reduce the carbon, waste and water footprints of the clothing we use in the UK.

The Governments also support the Product Sustainability Forum which works to encourage sustainable product design and practices across the grocery and home improvement sectors.

The ‘Love Food Hate Waste’ programme encourages design of food packaging in such a way that reduces food waste by keeping food fresher for longer.

The Government Buying Standards, which are mandatory procurement standards for central Government Departments include requirements on product design and waste prevention.

The Technology Strategy Board has run a number of competitions supporting innovation, focusing on design to reduce environmental impacts and waste, including:

- Design challenges for a circular economy - supporting feasibility studies into the re-design of products, components and systems to retain material within the economy over several cycles of use. (£1.5m)
- Supply chain innovation towards a circular economy – on the preservation of the value of products and/or materials at end-of-life and how to keep them in productive use for longer. This includes significant design components, both to ensure environmental performance and attributes such as desirability, usability and feasibility (£5m)

The Welsh Government has a number of funded projects to deliver in this area including eco-innovation intervention, which targets sectors and businesses where there is greater potential for resource efficiency gains through eco-innovation, and Resource Efficient Business Models, delivered via WRAP, to test the feasibility of introducing more resource efficient business models with a focus on high-impact products, including electrical and electronic products, clothing and furniture, and the services that use them.

**Conclusion:**

All those Member States (25) submitting replies to the Implementation Questionnaire 2010–2012 have reported that they have addressed the issue of extended producer responsibility in their national legislation and non-legislative policy, with measures they have reported as having introduced including take-back obligations on certain products and the manufacture of products with their eventual material recovery in mind.

However, whereas all Member States listed measures directed at end of life product recovery, (such as take-back obligations on producer and deposit-refund schemes) Austria, the Czech Republic, Italy and Luxembourg did not present any examples in
their replies relating to producer responsibility measures directed at improving product design.

3.4 Recovery Measures

3.4.1 Implementation

Question (5) (i): Please describe how the Member State has implemented Article 10 of Directive 2008/98/EC on recovery and separate waste collection in accordance with Articles 4 and 13 of that Directive.

Article 10 (1) requires that Member States put in place measures to ensure that waste is recovered in accordance with Articles 4 and 13. Article 4 describes the waste hierarchy and Article 13 requires that waste management operations be carried out without detriment to human health or the environment. Question (5) (i) asks Member States to describe how they have implemented these related requirements.

19 Member States reported how they fully address recovery in relation to the waste hierarchy and protection of human health and the environment as legislated by Article 10 (1) in its full relation to Articles 4 and 13. It should be noted, however, that among these 19 Member States is Hungary, whose current national legislation came into force in 2013. The detailed replies are provided below.

In addition Luxembourg, Poland, Sweden and the United Kingdom responded fully to the question of their implementation of Article 10 in relation to the waste hierarchy, but did not address implementation in relation to the protection of human health and the environment. Austria and Croatia gave high level replies referencing their national legislation, which while stating general provision made in accordance with Article 10 did not go into detail on specific measures implemented.

Member States replies are summarised below:

In Austria, Section 15 of the AWG 2002 specifies that in the collection, transport, storage and treatment of waste (and in other waste operations), in accordance with the objectives and principles of Article 1 paragraph 1 and 2 of the AWG 2002, disruptions to public interests are to be avoided. In addition, Article 15, para. 4 AWG 2002 specifies general recycling obligations for waste. The recovery of the waste must proceed in accordance with the special Behandlungspflichten, in accordance with section 16 AWG 2002, or in accordance with regulation in accordance with section 14 para. 1 AWG or § 23 AWG 2002 to 2002. In addition, there is a blending ban in Section 15 AWG 2002. Therefore, the mixing of waste with other wastes or materials is not permitted if doing so makes treatment more difficult, or breaches specific limit values or quality requirements or system-specific limit values. The common treatment of different wastes or of wastes and materials in an establishment shall not be deemed to constitute mixing within the meaning of this provision where such treatment is permitted for each individual waste. The joint collection of different types of waste or of wastes of the same type with different levels of contaminant content is permitted where no chemical reaction occurs between the wastes and the joint use or treatment is permitted.
according to the reported criteria. Specific requirements for certain types of waste are found in the AWG 2002, Spezialverordnungen, or in the Bundes-Abfallwirtschaftsplan 2011.

In Bulgaria, Article 30 of the ZUO requires persons whose operations involve the generation, collection, transport and/or treatment of waste to take the necessary measures for recovery of the waste in accordance with the waste management hierarchy and in accordance with the requirements for prevention or reduction of the harmful impact of waste on human health and the environment and in accordance with the requirements of the statutory instruments regarding protection of water, air, soil, plants and animals, noise and odours, and protection of the environment and of places subject to special protection. Article 33 of the ZUO has laid down legislative requirements for separate collection of packaging waste: paper and cardboard, metal, plastic and glass. Separate collection is mandatory for the waste produced by retail premises. Item 11 of Article 19(3) obliges municipalities to provide sites for the gratuitous delivery of separately collected waste from households, including bulky waste, hazardous household waste and all other, in all residential areas with a population exceeding 10,000 residents within the territory of the municipality not later than 14 July 2014 (§ 14 of the Transitional and Final Provisions of the ZUO).

In Croatia, measures necessary to ensure that waste undergoes recovery operations and to facilitate or improve recovery are provided in Article 8 of the Sustainable Waste Management Act, which states that waste shall be recovered unless doing so entails a health risk due to the toxic properties of a secondary material, or unless recovery is not possible due to limitations in technology, economic unfeasibility, or the further use of the waste is not possible. Article 9 of the Sustainable Waste Management Act provides for waste management in such a way as to prevent adverse effects on the environment and human health in accordance with the requirements of Article 13 of Directive 2008/98/EC. Separate waste collection is provided for by Article 11(6) of the Sustainable Waste Management Act. In addition, Article 35 stipulates obligation by local self-government units to separately collect waste paper, metal, glass, plastic and textiles, as well as bulky municipal waste.

In Cyprus, Article 10 is transposed in the Waste Law as article 12. The Competent Authority takes every necessary measure so that the waste produced follows the waste hierarchy during its management cycle with the recovery preceding the disposal. Most of the waste streams, however, cannot be recovered in Cyprus and are exported for recovery purposes in other countries according to the procedures laid down by the regulation 1013/2006/EK. The island has only one recovery treatment facility, the cement Kiln of Vasilliko. The waste steam of glass packaging can be treated in the cement Kiln, as a raw material in the production of cement. The Department of Environment by banning the mixing of wastes, applying monitoring and inspections and through pilot programs and awareness campaigns to the general public but also to the local authorities is promoting the separate collection of waste for purposes of recovery.

In the Czech Republic, a container system for waste collection has been implemented primarily for packaging waste, municipal waste and similar waste (paper, plastic, glass
and drinks cartons). This system is available to over 98% of Czech citizens. A bag waste collection system is used in some municipalities as a supplementary waste collection system. The waste sorting system is implemented by the individual municipalities in cooperation with an Authorised Packaging Company (APC). This company provides a system of what is called joint compliance with the take-back obligation and use of packaging waste on the basis of a decision issued for it by the Ministry of the Environment in accordance with the Packaging Act. An Authorised Packaging Company subsidises municipalities’ average financial costs connected with the sorting of packaging waste. An Authorised Packaging Company implements public information for the purpose of promoting the subject of waste sorting and increasing the level of involvement by citizens in municipality waste sorting systems. All normal communication means are used, such as television, radio, the internet and written advertisements. School education events, workshops and exhibitions are also implemented. The mixing of waste is regulated by the Waste Act, in its general obligations, Section 12.

In Denmark, requirements have been established in the Waste Order concerning the separate collection of paper, cardboard, PVC, impregnated timber, electronic waste (metal), household packaging made from glass, metal and plastic, construction and engineering waste from households and waste oil from undertakings. Municipal authorities must establish schemes which ensure that waste for which they are responsible, including hazardous waste, is handled in an environmentally appropriate manner. A collection scheme may be established either as a collection scheme (e.g. refuse collection) or as a return scheme (e.g. by giving households access to recycling stations). As regards some types of waste, the Waste Order specifies the scheme that the municipal authorities must establish. This applies for example to refuse collection from households, where municipal authorities are generally required to establish a collection scheme in the form of a refuse collection service. In the case of paper and glass packaging from private households, municipal authorities must establish a collection scheme in settlements of a certain size.

In Estonia, Section 30 of the Waste Act establishes a principle of waste recovery according to which waste shall be recovered if this is technologically possible and does not involve excessive costs compared to other methods of waste management. Under Section 31 of the Waste Act, local governments are required to organise the sorting of waste, including the separate collection of waste, in order to enable recovery of the waste to the highest possible extent. Specific requirements for sorting are provided by local government waste management rules. Pursuant to the Waste Act, recoverable waste and hazardous waste is to be separated from other waste if this is technologically possible and does not involve excessive costs. Where it is technically, environmentally and economically feasible, the local government shall organise at least the separate collection of paper, cardboard, metal, plastic and glass waste.

According to Section 36 of the Waste Act, mixed municipal waste shall be sorted before it is deposited in landfills in order to allow the recovery of municipal waste to the highest possible extent. It is prohibited to deposit unsorted mixed municipal waste in landfills. If necessary, waste collected separately shall be after sorted. If the additional treatment of
waste to be deposited reduces the quantity of the waste or the hazard arising from the waste or facilitates the handling thereof, sorted municipal waste shall be additionally treated before deposit. Minister of the Environment Regulation No 4 of 16 January 2007 establishes the ‘Procedure for the sorting of waste and the bases of classification of sorted waste’.

In Finland, Section 8 of the Waste Act 646/2011 sets the general requirement for obeying the waste hierarchy in accordance with the Article 4 of the Directive (see reply to question 2 above). Section 13 of the Waste Act states that waste may not be abandoned or treated in an uncontrolled manner. Waste and waste management shall not pose a hazard or cause harm to human health or the environment, pose a danger of littering, or cause impairment of general safety or any other comparable violation of public or private interests. The principle underlying waste management is to employ the best available technology and to comply with best environmental practices.

According to the Environmental Protection Act (86/2000), Section 28, environmental permit is needed for any activity that may lead to pollution of the air and water or contamination of the soil, including treatment of waste on a professional basis or at an installation. An environmental permit may be granted for an activity that meets the requirements of the Environmental Protection Act and the Waste Act and the decrees issued under them. Section 15 of the Waste Act states that as part of waste management, waste of different types and quality shall be collected and kept separate to the extent necessary to prevent hazard or harm being posed to human health or the environment, to comply with the order of priority, or to facilitate the appropriate arrangement of waste management, and to the extent technically and economically feasible.

In relation to Åland Islands the Section 8a-8c of the Waste Act, 1981:3, states that waste must not be dumped or handled carelessly. Waste should be collected and kept separately to make it possible to be recovered. Waste should be recovered if it is technically possible and the recovery is without unreasonable additional costs.

In Germany, the provisions on recycling in Article 10, paragraph 1 in conjunction with Articles 4 and 13 of the Directive 2008/98 / EC will be implemented by § 7 paragraph 2 to 4 and § 8 paragraph 1 KrWG. In accordance with Article 4 of Directive, recovery takes precedence over disposal, except when disposal is preferable in terms of human health and the environment. The requirement is also made that waste be collected separately to the extent necessary for proper recovery.

In Greece, measures are taken concerning the separate collection of waste as part of the country’s system of alternative management. The waste streams included are collected separately from the final user or consumer through the approved PRO Schemes of alternative management, before undergoing recovery operations. There were 17 such approved schemes of alternative management by the end of 2012.

More specifically, the main methodology which has significant activity at national level is the collection of packaging waste separately from the rest municipal waste, and the sorting of packaging waste in separate materials. However, apart from the basic
methodology, an important percentage of packaging paper, wood, and to a lower extent plastic and metal is collected separately per stream and recycled within the framework of business activity. This percentage emanates from the so called “Industrial Commercial Packaging Waste” and is recorded and economically strengthened by the schemes, while special actions regarding the separate glass collection have been taken place.

Moreover, up to now several municipalities apply programmes of separate collection of paper, metal, plastic and glass. During issuing environmental permits to the waste producers and waste management facilities the competent authorities set terms and conditions regarding waste management that promote the waste recovery. Separate collection of waste paper in the form of printed material in Greece has been set into force by the private initiative in units such as offices, services, companies, and even households. The paper is taken to bigger commercial units and finally is either recycled within the country or is exported for recycling.

In Hungary, the Waste Act entered into force on 1 January 2013 and transposed Directive into national law, and is based on the waste hierarchy. The objectives of the Waste Act include increasing the available recovery capacities for as many waste streams as possible. However, this may only be achieved by long-term strategic planning, and – pursuant to the Waste Act – the national planning of waste management is carried out in the framework of the National Waste Management Plan and the National Prevention Programme (‘the NPP’), which is an integral part of the former.

As regards recovery, the Waste Act stipulates that those recovery operations should be applied which deliver the best overall environmental outcome in relation to the waste to be recovered. One prerequisite for this is the waste management permit, which is issued to the applicant by the environmental authority. Mixing of wastes with other wastes or materials with different properties is only possible if it delivers the best overall environmental outcome. To perform such types of treatment, a waste management permit for treatment is necessary. After collection, non-hazardous wastes to be recovered can be stored for a total of not more than 1 year – including the period of pre-processing – before recovery.

Other alternatives include preparing the waste for re-use, or recycling, during which the waste is converted into a product or material for the original purpose or other purposes. One prerequisite of successful recovery is the appropriate collection of the waste and diversion towards recovery facilities. This objective is also facilitated by the fact that a home-servicing separate waste collection scheme should be set up for household generated glass, metal, plastic and paper waste by 2015.

In Ireland, Section 29(2A)(a) of the Waste Management Act imposes a legal duty on waste producers to recover their waste in accordance with the requirements of the waste hierarchy. It imposes a requirement for the EPA and local authorities to apply ‘measures’ to ensure waste undergoes recovery. The Waste Management (Food Waste) Regulations 2009 (S.I. No. 508 of 2009) provide for producer responsibility at commercial food facilities to segregate food waste and send for recovery. The European Union
(Household Food Waste and Bio-waste) Regulations 2013 (S.I. No. 71 of 2013) provide for producer responsibility at households to segregate food waste and send for recovery.

The Technical Guidance Document (TGD) “Municipal Solid Waste: Pre-treatment and Residuals’ Management” published by the Environmental Protection Agency constitutes associated guidance in support of its formal sectoral guidance notes on the determination of national Best Available Techniques (BAT) for the waste sector (Landfill BAT, Waste Treatment BAT, Composting BAT, etc.) and forms a basis for the application of conditions to the Waste Licences of Landfill and Waste to Energy facilities, which impose a waste intake pre-treatment requirement which seeks to ensure the maximum recovery of waste materials before acceptance to such facilities.

In **Italy**, the Government has established in Article 181 of the above-mentioned consolidated act on the environment that the Ministry of the Environment shall, by issuing one or more decrees, adopt measures to promote the recovery of waste in accordance with the waste hierarchy and for the purposes of the protection of human health and the environment. In addition, the Italian Government has laid down in Article 182 of the same decree that ‘waste disposal constitutes the residual phase of waste management subject to the verification of the technical and economic impossibility of recovery operations’. In addition, to ensure that priority is given to recovery rather than disposal, the Italian Government has set very stringent objectives for the separate collection of waste (Article 205). Finally, to ensure that waste recovery activities take place in accordance with the provisions of Article 13 of the Directive – in other words, without endangering human health and without harming the environment – the Italian Government some time ago issued specific decrees identifying the correct procedures for certain recovery operations for non-hazardous and hazardous waste (Ministerial Decree of 5 February 1998 and Ministerial Decree No 161 of 12 June 2002).

In **Latvia**, in accordance with the Waste Management Law, waste which is not recovered must be disposed of in a landfill or waste dump authorised for this purpose or in another way for which a permit has been issued in accordance with pollution laws, taking into account the national waste management plan and regional plans. In this way priority is given to waste recovery. Regional Environmental Boards of the State Environmental Service issue permits for performing category A or B polluting activities to recovery facilities depending on their capacity. Recycling is performed by waste management undertakings. As at 31 December 2012, there were 1055 category A or B pollution permits in force, covering waste collection, recovery or disposal. Collection facilities which do not require category A or B polluting activity permits have been issued waste management permits by the State Environmental Service.

Details on the recycling of household and construction waste are provided in point 19 of this report. In 2011, nearly 65% of the total amount of hazardous waste collected was recycled. Certain categories of hazardous waste are recycled in Latvia (e.g., waste oil re-refining, recycling of fluorescent lamps), while part of the hazardous waste is exported for recycling to other Member States. For the most part, hazardous waste was recycled under disposal and recovery code R9 (oil re-refining or other re-uses of oil).
Cabinet Regulation No 401 of 24 May 2011 laying down requirements for waste incineration and the operation of waste incineration facilities lists the requirements for the incineration of waste (including hazardous waste), the operation of waste incineration facilities and the requirements and limit values in respect of the cleaning of exhaust gases from incineration facilities. In accordance with Cabinet Regulation No 1082 of 30 November 2010 on the procedure for declaring category A, B and C polluting activities and issuing Category A and B polluting activity permits, facilities for the incineration of municipal waste need a category B permit. Co-incineration where fuel is replaced by waste should also be viewed as waste recovery.

In Lithuania, the Law of the Republic of Lithuania on Waste Management (Official Gazette, 2002, No 72 3016; 2013, No 52-2501) defines the recovery of waste as an activity whose main result is the use of materials the waste is composed of for a specific purpose instead of other materials or an activity which results in the preparation of waste to be used for that purpose in the company or the whole holding. Pursuant to the Law on Waste Management, permits are only issued to those waste recovery or disposal companies that have plans for winding down their waste recovery or disposal activities.

Pursuant to the Law on Waste Management, the waste holder must deliver the waste to waste managers or he can manage it on his own in accordance with the procedure established by legislation. Municipal waste is managed in accordance with the procedure established by the municipalities’ waste management rules. Waste holders must sort their waste at source. After the sorting of the waste at source, waste collection companies must perform selective collection of waste. Waste treatment activities are subject to the requirements established for the recovery and disposal of waste. Waste collection and/or transportation companies must deliver the collected and transported waste to the relevant waste treatment facilities in accordance with the following requirements:

1) without exceeding environmental limits for water, air or soil pollution as established by legislation and without a significant negative impact on public health and wildlife;
2) without exceeding the noise or odour limits established by legislation; and
3) without a significant negative impact on countryside or places of environmental, natural or cultural importance.

In Luxembourg, Article 10 of the Directive is transposed into national law in Article 13 of the Law of 21 March 2012. Holders of waste must ensure that different fractions and waste of differing qualities are not mixed with other waste fractions, materials with different properties, water or any other product or substance that may reduce the potential for subsequent high value use of the product. When the mixing has occurred, the waste should as far as possible be separated where necessary to allow recovery. Individuals should use the selective collection infrastructure provided by their local authorities, state authorities or other official channel, and in particular by producers under the scheme of extended producer responsibility. Private and public institutions and residential buildings must have the necessary infrastructure for the separate collection of waste by 1 April 2014 at the latest.
In Malta, in accordance with paragraph 11 of Schedule 5 laid down in the Waste Regulations (LN184/11; as amended), measures to ensure that waste undergoes recovery operations in accordance with the waste hierarchy and to safeguard human health and the environment are to be addressed in Malta’s National Waste Management Plan, which is currently under review.

Already, however, dry recyclables such as metal, plastic, paper/cardboard and glass are collected separately, either through the use of bring-in sites or through door-to-door collection of commingled paper, plastic and metal. Dry recyclables are then sent to local material recovery facilities. These waste streams are sorted both mechanically and manually. The latter operation is intended to remove contaminants and to separate recyclable streams collected together. Furthermore, regulation 9 laid down in the Waste Regulations (LN184/11; as amended), prohibits the mixing of separately collected waste with other waste or other material with different properties. This prohibition only applies to those cases where keeping waste separate facilitates or improves recovery.

In Poland, in accordance with the Act on Waste, waste must be collected separately. As regards the handling of waste batteries and accumulators, in accordance with the Act of 24 April 2009 on Batteries and Accumulators, they may not be placed with other waste in the same container. Moreover, this Act also provides that waste automotive batteries and accumulators and waste industrial batteries and accumulators should be collected separately according to type so as to facilitate their treatment by means of technologies and installations for the treatment and recycling of specific types of waste batteries or waste accumulators. Moreover, waste portable batteries and accumulators may be collected free of charge at collection sites where containers are located.

The Act of 29 July 2005 on Waste Electrical and Electronic Equipment expressly provides that waste equipment may not be placed together with other waste. Waste electrical and electronic equipment recovery organisations performing, inter alia, collection duties of entities placing equipment on the market organise waste equipment collections. Moreover, waste electrical and electronic equipment is also collected by entities engaged in non-professional waste collection activity, i.e. shops and service centres. Users may also leave waste equipment in a shop when they buy a new product of the same type. Such measures ensure separate collection of this type of waste as equipment users may hand over waste equipment at specifically designated places.

As regards packaging, it should be pointed out that the Act of 11 May 2001 on Packaging and Packaging Waste imposes on retail units with a sales area exceeding 2,000 m2 an obligation to separately collect at their own expense packaging waste for products they offer. Each of the above-mentioned Acts specifies recovery and recycling targets for specific waste, which producers are required to achieve. If a required recovery and recycling target is not achieved, entities placing on the market products in packaging, batteries and accumulators or waste electrical and electronic equipment are required to pay a product fee.

In Portugal, the concerns that guided national actions in relation to waste focused on the gathering of information on the quantity and characteristics (whether hazardous or
not) of the waste generated, so that planning instruments could reflect the situation identified by providing the country with the necessary infrastructure to ensure attainment of the targets and other management obligations arising from Community legislation by which it is bound and, accordingly, that waste is sent to a suitable destination, both in terms of the environmental aspect and the protection of human health. Therefore, with regard to municipal waste, the National Strategy for the Reduction of Biodegradable Municipal Waste Deposited in Landfill (ENRUBDA) launched in 2004, together with the Strategic Plan for Municipal Waste, launched in 2006 (PERSU II 2007-2016), provides that the diversion from landfill of biodegradable municipal waste must comply with the method set out in Directive 1999/31/EC, promoting separate collection and the subsequent creation of treatment facilities for its recovery.

In addition, the application of EPR to specific waste streams contributed to the joint responsibility of economic operators along the management chain, and gradually to awareness of the world of waste management operators used by the management bodies, and subsequent restriction of the activities involved (in particular through inspection activities) to those which are properly licensed for that purpose.

In Romania, waste producers and waste owners have the obligation to recover waste, observing the waste hierarchy and without endangering human health or harming the environment, especially:

1) without generating any risk for the air, water, soil, fauna or flora;
2) without creating any discomfort due to noise or odours; and
3) without having a negative impact on the landscape or the special interest areas.

Also, in order to facilitate and improve recovery, waste should be collected separately, in case this is technically, economically and environmentally possible, and should not be mixed with other waste or materials with different properties. At the same time, the units and companies that recover waste have the following obligations:

- to have a specially set up space for storing waste under conditions that allow for and guarantee reduced risk to human health and risk of harming the quality of the environment;
- to avoid piling up stocks of waste to be recovered, and of products resulting from recovery, that might generate environmental pollution or be a risk to human health; and
- to adopt the best available techniques in the field of waste management at the time of procurement.

These conditions and obligations are included in the (integrated) environmental permits held by the business operators.

In Slovakia, every person shall be obliged to treat or otherwise handle waste in compliance with the Waste Act; the one who becomes obliged by the decisions or permits issued on the basis of this act must handle or otherwise treat waste also in line with the said decision or permit. The condition of obtaining a permit issued by waste
management public authorities also helps to meet the stipulated provision. Permits are required for, among other things:

1) waste recovery;
2) operating of waste recovery facilities with the exception of incineration and co-
    incineration facilities for waste;
3) change and reconstruction of waste disposal facilities and waste collection
    facilities or their parts that are operated on permits issued pursuant to the Waste
    Act;
4) handling hazardous waste including its shipment, if such is not part of the permit
    under other provisions of this paragraph, in the case when the waste holder
    handles waste in annual volumes exceeding 100 kg, or if the waste transporter
    annually transports more than 100 kg of hazardous waste;
5) collection or treatment of End-of Life vehicles; and
6) collection or treatment of WEEE.

Section 8 of the Waste Act sets out a requirement for authorisation of: treatment and
recycling of waste batteries and accumulators; recovery of waste oils; treatment of End-
of Life vehicles; and treatment of WEEE, and subsequently lays down regulations
addressing the said activity. Section 21 of the Waste Act sets out obligations on the
operator of waste recovery facilities to: recover waste in compliance with the permit for
operating a waste recovery facility; operate hazardous waste recovery facilities in
compliance with approved operational manual; ensure that waste is kept safe from
misappropriation or undesirable release; and keep facility operation records and files.
Pursuant to sect. 18(2) of the Waste Act, operators obliged to treat or otherwise handle
waste in a way that will not endanger public health and damage the environment.

In Slovenia, Article 19 of the Decree on Waste lays down that waste must be recovered,
whereby recovery must be carried out in accordance with the requirements of the waste
hierarchy (Article 9) and the requirement to protect the environment and human health
(Article 10). The preparation of waste for re-use has priority over recycling and other
waste recovery procedures, while recycling has priority over other recovery procedures,
except for preparation for re-use. Under Article 20 of the Decree on Waste, waste that is
not recovered in accordance with Article 19 of the Decree shall be disposed of, with
other disposal procedures having priority over landfill. The disposal of waste must be
carried out in accordance with the requirement to protect the environment and human
health (Article 10). Checks are made within the administrative procedure of entry in the
register of waste collectors and the issuing of an environmental permit for waste
recovery or disposal to ensure that the relevant provisions are being complied with.

Under Article 34 of the Decree on Waste, a waste collector must collect waste in
accordance with its waste collection plan, and must review and, where appropriate,
amend the plan on an annual basis. Special regulations governing the management of
individual types of waste set out the additional requirements that must be met by a
person intending to collect such waste, where necessary with regard to protection of the
environment and human health.
The Decree on Waste also lays down obligations incumbent upon a producer of waste that is a legal entity or sole trader whose activity generates more than 150 tonnes of waste or more than 200 kg of hazardous waste in a given calendar year in relation to requirements regarding the waste hierarchy (Article 9) and the requirement to protect the environment and human health (Article 10). Every such producer of waste must have a waste management plan pursuant to which it carries out measures to prevent and minimise the generation of waste and manages that waste; when drawing up the plan, the producer must pay due regard to the requirements referred to in the Decree, particularly those referred to in Articles 9 and 10, and the requirements regarding the separate collection of waste (Article 18).

In **Spain** Article 10 of Directive 2008/98/EC on recovery and separate collection has been transposed into the national legal system through Article 21(5)1(5) of Law 22/2011 of 28 July on the collection, preparation for re-use, recycling and recovery of waste.

The obligation to establish the separate collection is set out in Article 21(3) of Law 22/2011 of 28 July:

> The environmental authorities, in their respective areas of competence, shall adopt the necessary measures to ensure that waste undergoes recovery operations. Where necessary to facilitate or improve recovery, waste shall be collected separately and shall not be commingled with other waste or materials with different properties.

In **Sweden** Article 10.1 is implemented through several regulations. To start with the initial paragraph, chapter 1 section 1, and the rules of consideration in chapter 2 in the Environmental code. Furthermore, permission or notification is required for environmentally hazardous activities in accordance with chapter 9 of the Environmental Code and the provisions in chapter 29 of the Ordinance on environmental proceeding.

In the Ordinance on waste there are requirements both for the separate collection of certain waste (sections 14-19, 25, 30) and for the waste holder to keep notes on i.e. the types and amounts of waste that is being treated (section 54). This simplifies the control of how the waste is managed (the Swedish EPA report “Waste in Sweden 2010, see enclosed document). Establishments for pretreatment are also required to keep notes, according to provisions in NFS 2005:10.

In the **United Kingdom** this article has been approached differently throughout the UK. Recovery operations are given priority in England and Wales through the Waste (England and Wales) Regulations 2011, which mandates priority consideration of the waste hierarchy for waste handlers. Regulations 18-20 of the Waste Regulations (Northern England and Wales) Regulations 2011, which mandates priority consideration of the waste hierarchy for waste handlers.

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Ireland) 2011 transpose the requirements of Articles 10 and 11 of Directive 2008/98/EC in Northern Ireland. The Waste Management Licensing (Scotland) Regulations 2011, Schedule 4 paragraphs 4, 5, and 6(1)(b) require specified public authorities to exercise specified statutory functions with the objective of ensuring separate collection, where appropriate. All countries have also produced guidance to help ensure the waste hierarchy is followed. The UK also implements Landfill Taxes to help drive waste up the waste hierarchy.

The Welsh Government has supplemented this with other financial incentives to local authorities such as grants for sustainable waste management or support to establish capacity for food waste treatment (primarily anaerobic digestion). Furthermore, in Wales statutory recycling targets have been set for local authorities (70% for municipal solid waste) along with landfill targets (maximum of 5%), both for 2025, under the Waste (Wales) Measure 2011. Strategic direction has been provided to local authorities, businesses and the public in several documents such as Towards Zero Waste, the Collections Blueprint and plans for several different sectors.

In Northern Ireland, the Waste Management Plans produced by the three sub-regional Waste Management Groups on behalf of their constituent councils commit them to separate and collect recyclable materials in accordance with whichever combination of separation and collection methods represents the best practicable environmental option for their constituent councils, including kerbside collection, or householders bringing their recyclables to civic amenity sites or Household Waste Recycling Centres. DoENI established the Strategic Waste Infrastructure Programme and the associated Programme Delivery Support Unit in 2007-2008, to support local government in securing the major new waste infrastructure necessary to achieve compliance with legislative obligations in respect of the recovery and disposal of the residual waste from which segregated recyclates have already been extracted. It also provided up to £35m funding to assist local authorities in contracting facilities such as MBT and EfW plants in order to continue driving waste up the waste hierarchy. Gibraltar has transposed Articles 10 and 11 of the Directive under section 192C (3) of the Public Health Act.

Gibraltar currently has kerbside recycling facilities for paper, metal & plastic and glass and has a civic amenity site for householders to bring in their recyclates.

### 3.4.2 Separate Collection and TEEP

**Question (5) (ii): Please indicate where the Member State considers that separate waste collection may not be technically, environmentally and economically practicable.** Separate collection means the collection where a waste stream is kept separately by type and nature so as to facilitate a specific treatment.

**Article 10 (2)** which is the relevant article for this question, requires that where necessary to facilitate or improve recovery, waste should be collected separately if doing so is technically, environmentally and economically practicable (TEEP). Question (5) (ii) asks Member States to detail cases in which it considers that separate collection of waste materials fails the TEEP test of technical, environmental, and economic practicability. It should be noted that if any one of the TEEP conjuncts (i.e. technical,
environmental, or economic practicability) does not hold, the requirement on separate collection becomes void. Judgement on TEEP requirements in any particular case is therefore a detailed and complicated matter.

19 Member States reported that where separate waste collection is not occurring there are mitigating reasons relating to technical, environmental, or economic practicability. The detailed replies are provided below.

Luxembourg on the other hand reported that packaging waste is primarily collected without separating it out (i.e. commingled), indicating that the requirements of the Article 10 might not be met. Sweden responded that waste is not collected separately in thinly populated areas. The United Kingdom provided a description of its approach to the issue of TEEP requirements, but failed to provide any specific examples as requested by the question. Finland referenced the general guidelines in Section 15 of the Waste Act, which relate to questions of population density and transport distances. Finally Croatia and Hungary did not provide a reply.

Best practice has been reported by Germany, which takes the general possibility of separate collection as the default position, while allowing that in certain cases it may be demonstrated that separate collection may not be possible based on TEEP considerations. On this model, separate collection should be assured in all possible cases.

Member States replies are summarised below:

In Austria, Article 15 of the AWG 2002 sets out the general treatment obligations of waste owners, which states that in principle waste is kept separate according to type and characteristic in order to facilitate certain treatments. In individual cases this principle is assessed for ecological and economic reasonableness. For example, in the area of construction waste there is a de minimis. In the separate collection of biogenic wastes, those wastes are excluded which due to their harmful substances endanger the recovery of the other biogenic wastes or make such recovery difficult.

In Bulgaria, Article 33 of the ZUO requires that separate collection of household waste and packaging waste be organised in residential areas with more than 5,000 residents, as well as in resort areas. This means that separate collection is not mandatory in residential areas with fewer than 5,000 residents and above all in very small residential areas because this would be exceedingly ineffective in economic and technical terms. The fact that the obligation does not apply to such residential areas, however, does not preclude the possibility of organising separate collection at local level, where financially and technically feasible.

Croatia did not provide a reply to this question.

In Cyprus, partial separate collection is applied in the case of packaging waste where metal, plastic and tetrapak/drink cartons are collected together (PMD). This approach is considered more practicable than the collection of each material separately. Similarly the waste engine oil, hydraulic oil, transmission oil and gear oil are collected together.
In the **Czech Republic** waste from metal packaging is not normally collected using the container network, as compared to other materials there is only a small quantity of metal packaging on the market. In addition, the majority of metal packaging placed on the market represents industrial packaging that does not become part of municipal waste, but becomes part of industrial or small trader packaging. A significant part of metal waste, including municipal waste, is collected through a network of commercial metal waste salvage purchasers, while metals are also separated from the ash produced through waste incineration or energy recovery from waste.

During the reporting period, **Denmark** did not conduct any studies concerning specific waste streams where it was concluded that it is not technically, environmentally and economically practicable to arrange the separate collection of waste.

In **Estonia**, separate collection at the place of generation of waste is not justified in certain low-density areas, because using different vehicles for the collection of separately collected waste is economically costly. Using a single vehicle, however, is technically complicated. It would also result in an additional load on the environment. Therefore, residents of low-density areas can take their separately collected waste, including clothes and paper, to a waste management facility or an appropriate waste collection site.

In **Finland**, since circumstances (such as the population density and transport distances) vary significantly in different parts of the country, the final decision on which waste streams are collected separately is made based on the general guidelines in Section 15 of the Waste Act (see replies to questions 5(1) and 7(1)).

The Åland Islands have separated waste collection for all fractions that are possible to recycle and for hazardous waste. Plastic is not recycled because the lack of facilities, but is collected separately.

In **Germany**, there are no basic definitions of when separate waste collection is not feasible. The law says that a separate waste collection is generally possible; however, in individual cases there may be exceptions to this where the evidence indicates that separate collection is technically impossible or economically unreasonable.

In **Greece**, part of the packaging waste stream was jointly collected in the previous years for technical and economic reasons.

**Hungary**, did not provide a reply to this question.

In **Ireland**, 98% of households provided with a collection service have a separate collection service for dry recyclables. The 2% of households not having a separate collection service for dry recyclables would generally be situated in dense inner-city locations where there is physically no space for a resident to hold/ present more than one waste receptacle, where there are difficulties of access for the waste collection service or where the household is situated in very remote and sparsely populated areas.

The European Union (Household Food Waste and Bio-waste) Regulations 2013 (S.I. No. 71 of 2013) provide for a responsibility in individual households to segregate food waste and send it for recovery. The threshold for the application of the Regulations is set at
population agglomerations in excess of 500 persons on the basis that the environmental, technical and economic practicability of separate collections for household organic waste below this population density can only be properly determined from an assessment of each individual situation. Accordingly, Regulation 5 of The Regulations highlights that mandatory separate collection of household organic waste for populations in excess of 500 population persons is being set as in the Regulations a minimum requirement, with individual local authorities also having the power to impose more ambitious policy objectives under a relevant Waste Management Plan or to apply more onerous conditions under a waste collection permit or under a waste presentation bye-law,

Section 22(10D)(a) of Ireland’s Waste Management Act provides that the (physical) planning authorities shall ensure that such measures are reasonably necessary and taken to secure appropriate provision for the management of waste (and, in particular, recyclable materials) within developments, including the provision of facilities for the storage, separation and collection of such waste (and, in particular, such materials) and the preparation by the appropriate persons of suitable plans for the operation of such facilities.

In Italy, the Government considers that separate waste collection is technically, environmentally and economically practicable. It has in fact set a target for separate waste collection of 65 % of municipal waste. However, in certain situations this ambitious target could be difficult to achieve. Therefore, Article 205 of Legislative Decree No 152/2006 gives municipalities the option of applying to the Ministry of the Environment for a special exemption where there are sufficient grounds to do so. The Ministry may grant this exemption if it considers this necessary and technically or economically justified. It is thought that separate waste collection is practicable, although the initial investment needed to set up the new collection system often represents an insurmountable obstacle for municipalities wishing to implement it.

In Latvia, no such conditions are provided for by national laws and waste management plans.

In Lithuania, no such cases have been identified so far.

In Luxembourg, in accordance with article 26 of the Act of March 21, 2012 waste produced by shipyards should be separately collected in different fractions as far as possible. Where it has been collected mixed, this waste should be submitted to separation and sorting operations. In practice, PMC packaging (i.e. bottles / plastic bottles, metal packaging and drinks cartons) are collected together in a plastic bag to be subjected to a sorting operation thereafter.

In Malta, during the reporting period separate collection took place through kerbside collection of dry recyclables and collection of WEEE, batteries and other bulky waste from households at civic amenity sites. However, Malta is not in a position to substantiate whether separate waste collection may or may not be technically, environmentally and economically practical.
In **Poland**, legislation requires that at least the following waste fractions be collected separately: paper, metal, plastic, glass and composite packaging as well as biodegradable municipal waste, including biodegradable packaging waste. Therefore, it is difficult to indicate cases where separate collection of a given waste fraction would not be technically, economically and environmentally practicable.

In **Portugal**, studies conducted by Sistemas de Gestão de Resíduos Urbanos (Municipal Waste Management Systems), concerning the separate collection of biodegradable municipal waste (BMW), concluded that that type of operation is not financially sustainable, given the diverse locations of large producers and the quantities necessary to supply the treatment lines and the distances to be covered to ensure its collection.

Following the presentation of a market study conducted in 2008 in order to assess any opportunities associated with the formation of a new waste stream consisting of used disposable nappies and other sanitary textiles, there was found to be no added value in its isolation as a specific stream and the subsequent development of a legal framework for it, given the need for greater technical knowledge to prepare a sectoral approach and to contribute to optimising the management of disposable nappy waste, including its diversion from landfill and sending for recycling.

In **Romania**, to date there have been no such cases.

In **Slovakia**, biodegradable kitchen and canteen waste is exempted from separate collection. From 1 January 2013, municipalities have had a duty to introduce and ensure separate collection of biodegradable municipal waste with the exception of waste produced by kitchen operators. At the same time, exceptions to this regulation have been defined due to the fact that a new duty and new system of separate waste collection is being implemented along with its specific features that are different to the current system of separate collection of municipal waste components.

In **Slovenia**, Article 18 of the Decree on Waste stipulates that paper, metal, plastic and glass waste and waste for which a system of separate collection has been established under a special regulation governing the management of individual streams or types of waste must be collected separately. The Decree also stipulates that other waste must also be collected separately where this is technically, environmentally and economically practicable and that it may not be mixed with other waste or other materials with different properties if this enables its recovery or if it is required in order to simplify or improve recovery. It is not explicitly determined when the separate collection of waste is not deemed practicable for the above reasons.

In **Spain** it is considered that the separate collections of waste established currently are technically, environmentally and economically practicable. The practicability of separate collections by materials other than the existing collections is being examined in order to improve recycling efficiency, but conclusive results have yet to be obtained.

In thinly populated areas of **Sweden** separate collection of packaging waste is not always considered technically, environmentally and economically practicable.
In the **United Kingdom** the Waste (Scotland) Regulations 2012, paragraphs 2(3)(b), 2(5), provide a derogation in Scottish legislation that will allow for waste streams to be collected together if it can be proven that the amount of material recycled will not be significantly less and the quality of the material recycled will not be significantly lower. A non-regulatory approach has been taken in England. In addition to the measures brought in to support separate collection under Article 11, Defra has funded the provision of case studies providing good quality, up-to-date information and bespoke advice through WRAP so that local authorities and other waste collectors can make effective decisions on separate waste collection on the basis of sound evidence. Defra is considering issuing guidance to local authorities in England, Wales and Northern Ireland on what is technically, environmentally and economically practicable. Wales has also published a Collection Blueprint, which incorporates kerbside sort, which it advocates all local authorities adopt.

**Conclusion:**

**19 Member States reported that they have implemented the Directive’s requirements on recovery in relation to the waste hierarchy in 2010-2012.**

Of the outstanding six Member States, four (Luxembourg, Poland, Sweden and the United Kingdom) did not explain how they manage recovery in accordance with the protection of human and environmental health. The remaining two Member States (Austria and Croatia) indicated that they have national legislation in place, but did not provide details of specific measures.

19 Member States provided details of ways in which their legislation has incorporated TEEP requirements in line with Article 10 (2). On the one end of the scale there’s Germany which reported that it takes the general possibility of separate collection as the default position, while allowing that in certain cases it may be demonstrated that separate collection may not be possible based on TEEP considerations. On this model, separate collection could be assured in all possible cases. Luxembourg on the other hand reported that packaging waste is primarily collected without separating it out (i.e. commingled), and there is a good possibility therefore that the requirements of the Article 10 are not being met.

Of the outstanding six Member States, Sweden stated that in thinly populated areas, waste is collected commingled. The United Kingdom provided a description of its approach to the issue of TEEP requirements, but did not provide specific examples of where waste is collected commingled. Similarly, Finland did not provide specific examples but indicated that the matter is one of population densities and transport distances and that guidelines have been created on the issue. Finally Luxembourg reported that packaging waste is primarily collected without separating it out (i.e. commingled).

Neither Croatia nor Hungary provided a reply to either part of this question.
3.5 Re-use and Recycling

3.5.1 Re-use Measures

Question (6) (i): Please describe what measures has the Member State taken to implement the requirements mentioned in Article 11(1) of Directive 2008/98/EC to promote the re-use of products and preparing for re-use activities. Which supplementary measures has the Member State taken?

Article 11 of the Directive requires that Member States take measures to promote product re-use and preparation for re-use, such as establishing re-use and repair networks and using economic instruments, procurement criteria and quantitative objectives. Question (6) (i) asks Member States which such measures they have taken in this regard.

21 Member States reported that they have implemented measures to promote re-use and preparation for re-use. Of these, Cyprus reported that during the 2010–2012 period it was operating solely awareness raising measures such as workshops and seminars during the reporting period, but has since implemented economic incentives. The detailed replies are provided below.

In addition Croatia reported that re-use measures are contained in its national Waste Management Plan and Waste Prevention Plan and will be implemented, but it did not give any specific examples of what these measures may be.

Romania reported that it has not implemented substantial measures, but as the country’s economic conditions entail a strong demand for second hand goods, a high level of product re-use is already achieved, meaning that additional legislative measures may not be necessary. Sweden provided a broad outline of its policy aims and made reference to its upcoming waste prevention programme, but did not provide any examples of actual measures. Finally Hungary reported that in 2013 a waste prevention programme will lay down proposals for measures, which falls outside the reporting period considered in this report. Secondly, Hungary reported that its separate waste collection schemes encouraged re-use activities. While separate collection of such items as bulky waste and textiles may indeed facilitate their subsequent re-use, collection is not the kind of re-use specific measure required under Article 11, but is rather a prerequisite of a functioning waste infrastructure.

A popular good practice is has been the introduction on a charge on single use bags in countries such as Ireland and Denmark, which reported that they promote re-use through restricting the use of disposable bags (also helping to reduce litter). Denmark reported that it also has a deposit refund scheme in place for beverage packaging, which is a good way of directing consumer re-use behaviour. Furthermore re-use networks which Germany and Hungary reported that they have established are a key method of creating support systems for re-use enterprises, allowing the sharing of information, skills and infrastructure.

Member States replies are summarised below:
In all of the **Austrian** Federal States, Re-use Shop feasibility studies have been carried out. Upper Austria has seen the implementation of a quality-assured Vertriebsnetzwerkes for second-hand goods, in which the local yards, repairers and social economy Re-use-Shops cooperate. The goods are sold under the brand name ‘revital’. This approach will be extended to all of Austria in the future. In the framework of the EU-project CERREC, which is funded by the Ministry of Environment, Re-use-Stakeholder organised meetings are constantly held, with the aim to accelerate the development of re-use and repair.

In **Bulgaria**, as required by Article 19 of the ZUO, the municipal authorities are responsible for providing sites for separately collected waste from the households in residential areas with a population exceeding 10,000 residents within the territory of the municipality and, where necessary, in other residential areas, by the middle of 2014, combined with repairs and re-use preparations. Waste originating from households and similar waste, such as bulky waste (cupboards, wardrobes, beds, sofas, armchairs, mattresses, etc.), textile waste and other recyclable waste suitable for such activities may be collected on these sites. Specific regulation on separate collection exists for WEEE, End-of-Life Vehicles, and packaging and packaging waste. For this reason, in line with the procedure established by the Regulation Establishing the Procedure and Terms for Payment of a Product Fee on Products which, after Use, Produce Ordinary Waste, the product fee on such packaging is paid once, upon its first placement on the market.

In **Croatia**, Article 7(1, 5) and Article 11(5) of the Sustainable Waste Management Act promote the re-use of products and preparations for re-use. The measures promoting re-use are provided in Articles 17 and 18, which define the content of planning documents in waste management: the Waste Management Plan of the Republic of Croatia and the Waste Prevention Plan. The promotion of the re-use and/or repair of appropriate discarded products or their components will be ensured in particular through educational, economic, logistical and other measures. In addition, specific qualitative and quantitative benchmarks will be determined to monitor and assess the progress made as a result of the measures being implemented. For the same purpose, specific qualitative targets and indicators can also be determined.

In **Cyprus**, measures were taken to promote the re-use other than awareness through workshops and seminars. However, measures are about to be applied through economic incentives for the application of actions promoting re-use. For the matter, the Competent Authority is preparing proposals regarding the funding of such actions for the period 2014–2020.

In the **Czech Republic**, among the basic measures to support re-use are the objectives arising from Directive 2000/53/EC, which have been transposed according to Section 37 (7) and imposed on entities authorised to collect, purchase, process, use and dispose of vehicle wrecks, according to Section 37a (1) d) on manufacturers and accredited representatives, and from Directive 2002/96/EC, which are imposed on manufacturers according to Section 37m (3) of the Waste Act, and on processors according to Section 37l (3) d) of the Waste Act. Taken back and separately collected electrical equipment is, as a priority, re-used as a whole unit before handover to a processor according to
Section 37m of the Waste Act, while only electrical equipment and its components that comply with the requirements of applicable legal regulations can be re-used. Specific regulation exists on the re-use of packaging (Act No 477/2001), and deposit refund systems are in place for some packaging types. A container system for waste collection has been implemented in the Czech Republic primarily for paper, plastic, glass and drinks cartons, available to over 98% of Czech citizens. A bag waste collection system is used in some municipalities as a supplementary waste collection system.

In the Czech Republic the waste sorting system is implemented by the individual municipalities in cooperation with an Authorised Packaging Company (APC). This company provides a system of so-called joint compliance with the take-back obligation and use of packaging waste on the basis of a decision issued for it by the Ministry of the Environment in accordance with the Packaging Act. An Authorised Packaging Company subsidises municipalities’ average financial costs connected with the sorting of packaging waste. Municipalities in the Czech Republic have the option to charge citizens for the handling of municipal waste in accordance with the PAYT principle (Pay-as-you-throw systems) – according to the “sorting level” (the “polluter pays principle”). Around 10% to 15% of municipalities in the Czech Republic use such a charging system.

In Denmark, for many years, there has been a packaging tax and a carrier bag tax in place with the aim of creating an incentive to reduce the use of materials. Denmark has chosen beverage packaging as an initiative area for preventive measures, as the area potentially represents a fairly substantial quantity of packaging waste due to the high rate of consumption. Denmark has established a scheme according to which certain beverages (e.g. beer, carbonated soft drinks and mineral water) may only be marketed in refillable packaging or disposable packaging that is covered by the deposit and return system run by Dansk Retursystem A/S. Empty refillable packaging must be returned to shops, etc. with a view to re-use through refilling, and when refillable packaging can no longer be re-used, it must undergo material recovery. Empty disposable packaging must also be returned to shops, etc. with a view to material recovery.

Wine and spirit bottles are collected via the municipal schemes, via the restaurant sector and via the retail sector. Whole bottles that are collected are rinsed out and sold for refilling either in Denmark or abroad, while broken bottles are sold for material recovery. The refunding of packaging tax in connection with the export of bottles for refilling abroad helps to support the re-use of wine bottles. Finally, a substantial quantity of plastic transport packaging is re-used – particularly soft drink and beer crates and transport boxes for food products within the retail sector and pallets. All municipal authorities have a duty to establish a re-use station. At such stations, there can be an opportunity to re-use or prepare products for re-use. The government’s Waste Strategy 2009-12, 1st sub-strategy, 18 March 2009, and Waste Strategy ’10, 17 June 2010 contains initiatives that promote the re-use of products and preparation with a view to re-use activities. An example is a national information campaign aimed at citizens www.brugmerespildmindre.dk.

In Estonia, The Waste Plan sets out ‘Development of the infrastructure of waste handling’ (point 5.2) as a separate measure, which requires the sorting of waste at the
site where it is generated and the collection, recycling and recovery of priority waste streams. The activity is aimed at reducing the quantities of waste deposited and to recycle recoverable waste. This requires the network of waste management facilities to be extended so as to ensure that a facility is in an accessible and central location within 10 to 20 km of each person that generates waste.

According to Section 174(2) of the Packaging Act the function of a recovery organisation is to ensure the re-use of collected re-usable packaging, i.e. if a re-use system is in place for packaging, a recovery organisation must not treat the packaging as waste and is required to send it to be re-used. In Estonia, certain types of glass packaging of beverages together with pallets and canisters made largely of wood or plastic are re-used. To a small extent, the re-use of other packaging is carried out between enterprises.

The Environmental Investment Centre has allocated support from the Cohesion Fund to several projects aimed at supporting re-use and preparing for re-use activities. An example is the financing of new equipment in order to improve the efficiency of work of the Sorting Centre of Packaging with Deposit.

In Finland, Section 47 of the Waste Act sets the producer the right of precedence to organise waste management for discarded products for which the producer is responsible. However, an operator other than the producer may offer services related to the re-use of products or preparation thereof. Section 16 of the Decree on Waste requires that the holder of construction and demolition waste organises separate collection so that the highest possible proportion of the waste can be prepared for re-use, or otherwise recycled or recovered.

The Waste Tax, Producer Responsibility Schemes and the Return Scheme for Beverage Packaging are expected to enhance re-use. The producer responsibility of packages in the Waste Act is extended and further details are set in the Decree on Packaging Waste. The decree on Beverage Packaging Return Scheme (526/2013) requires that 90 % of beverage containers should be re-used.

The waste prevention program of Åland Islands, a part of the waste management plan, suggests a special area at every municipal collection site should be reserved for things that can be re-used. The waste management plan also describes the important work non-profit organizations and private companies do to prepare products for re-use. Agenda 21 receives subsidy for their work with sustainable consumption. According to the waste management plan of Åland Islands should at least 60 % of the waste be recycled, at least 30 % of the waste be recovered as energy and the most 10 % deposit on landfill by the year of 2020.

In Germany, second-hand stores, recycling exchanges, rubble and part exchanges, and re-use networks as well as information campaigns are carried out and operated at the local level. Objectives and measures of preparation for re-use and recycling are included in the federal waste prevention program and waste management plan. The waste prevention program includes objectives to promote the development of quality standards for used goods (e.g. furniture, electrical appliances). In addition, public institutions and businesses are required to aim towards re-use and recycling in their
procurement and construction projects, preferring products that can be re-used or recycled.

In **Greece**, there are private practices and initiatives that promote re-use in general but up to now no specific legislative measure have been taken.

In **Hungary**, the National Prevention Programme – which is expected to be adopted by the government in the autumn of 2013 – lays down concrete proposals to encourage the setting-up and supporting of re-use and repair networks. In order to encourage re-use and preparing for re-use, the setting-up of the separate waste collection scheme was already started in earlier years.

In **Ireland**, the Plastic Bag Levy introduced in 2002 with a current rate of levy of 22 cents per bag has reduced the number of plastic shopping bags issued by over 90% and has increased the level of re-use of shopping bags correspondingly. Re-use through the provision of quality shopping bags has been encouraged by Regulation 5 of the Plastic Bag Levy Regulations, which exempts from the levy “plastic bags designed for re-use, which are used to contain goods or products and which are sold to customers for a sum of not less than 70 cent each”.

Stop Food Waste was initiated in June 2009 to promote food waste prevention and home composting in support of existing policy measures. The programme is designed to empower consumers to reduce food waste by rethinking how they shop, store, cook and re-use food. The programme has now become an established and recognised forum to promote food efficiency and composting to Irish householders. A key strand to the programme activities is the National Campaign, which recognises the importance of a clear, consistent message, promoting the food waste management hierarchy as an integrated solution rather than promoting a single option over another. The Stop Food Waste team communicates the programme widely and regularly using a wide spread of tools and applications, including online and social media as well as the more traditional media types.

The NWPP funded Project Officer was the focal point in helping to promote and develop the Community Re-use Network (CRN). This acts as an umbrella for community based organisations who are engaged in re-use activities. CRN members are involved in both direct re-use and preparing for re-use activities.

In **Italy**, the Government has fully transposed Article 11 of the Directive setting targets for preparing for re-use and recycling in Article 181 of Legislative Decree No 152/2006. In addition, precisely to ensure that waste is recovered, the Italian Government has set very stringent targets for the separate collection of waste (Article 205), which represent a fundamental benchmark for the achievement of recycling targets. The targets for separate collection set by the Italian Government (65 %) are consistent with the recycling target for municipal waste set by the Directive and, once achieved at national level, will automatically allow the recycling target to be met. In order to facilitate the preparing for re-use referred to in Article 180 consolidated act on the environment it is also proposed that the Ministry of the Environment should adopt measures to promote
the re-use of products and preparing for re-use activities. These decrees are currently being drafted by the Ministry of the Environment.

With regard to the target for municipal waste, since in Italy the percentage of separate collection has risen steadily since 2007, it is thought that the same growth will also be observed in recycling over the next few years, thus reaching the target set by the Directive.

In Latvia, municipalities must cooperate with waste managers to ensure that each municipality’s residents are provided with a separate collection service with respect to waste such as at least glass, paper, metal and plastic by 1 January 2015. Separate collection points, comprising the installation of one or several containers for the disposal of sorted paper, cardboard, glass, plastic and metal waste by waste producers as well as sorted waste collection sites where it is also possible to dispose of other types of waste (such as hazardous municipal waste, bulky waste etc.) in an environmentally friendly manner have been set up in order to ensure the separate collection of municipal waste across the entire territory of Latvia. Waste is collected from separate collection points or sorted waste collection sites by waste management enterprises that are engaged in the management of municipal waste within a specific municipality.

The taxation of environmentally harmful goods, packaging and disposable tableware as well as end-of-life vehicles should be mentioned as one more tool to promote re-use and recycling. Thus, the implementation of the principle of producer responsibility specified in EU and national law is being facilitated and ensured. In the reporting period, the NRT exemption was granted within the framework of the producer responsibility systems to 4 457 taxpayers for packaging, 866 taxpayers for environmentally harmful goods, 1 180 taxpayers for electrical and electronic equipment as well as 31 taxpayers for vehicles. Taxpayers, which have been granted this tax exemption, commit to taking back and recovering a certain amount of used environmentally harmful goods, packaging of goods, disposable tableware and vehicles, which have been placed on the market. Owing to these systems, waste sorting is being popularised and separate collection points and sites are being increasingly introduced.

In Lithuania, pursuant to the provisions of the National Strategic Waste Management Plan for 2007–2013 (Official Gazette, 2002, No 40-1499; 2010, No 146-7486), the objective of preparation for re-use is to prepare products or their components that have become waste for re-use without initial processing through inspection, cleaning or repair. The aim is to recover more of such products and their components. To promote and prepare for the re-use of such products and their components, deposit schemes, eco-design as well as other economic and administrative measures should be implemented (public procurement criteria, quantitative targets or other measures); re-use and repair networks should be created.

Re-use and preparation for re-use is promoted through public procurement. Lists of products whose public procurement is subject to environmental protection criteria, and environmental protection criteria to be applied by the contracting authority when purchasing goods, services or works have been approved by Order No D1-508 of 28 June
2011 of the Minister for the Environment of the Republic of Lithuania “On approval of the procedure for the lists of products whose public procurement is subject to environmental protection criteria, environmental protection criteria and application of environmental protection criteria to be applied by contracting authorities when purchasing goods, services or works” (Official Gazette, 2011, No 84-4110; 2012, No 134-6842) (for example, criteria for the re-use of packaging or the use of re-treaded tyres).

Re-use of certain products and packaging (for example, wooden trays, re-treaded tyres, car parts fit for re-use, etc.) is commonplace in Lithuania. There are social initiatives implemented for social purposes, i.e. to help deprived persons who need support, promote sustainable consumption through the exchange of items. These initiatives, however, indirectly promote waste prevention because help is provided through items fit for re-use, exchanges of used items take place, etc.

In Luxembourg, Article 11 of the Directive is transposed into national law in Article 14 of the Law of 21 March 2012. Re-use and preparation for re-use should be promoted by producers / waste owners, producers in the regime of extended responsibility, municipalities, the state and legal entities of public law, each in relation to:

- The support of re-use and repair networks;
- Encouraging consideration of re-employment in the contract award criteria, and in the use of economic instruments and quantitative objectives; and
- The establishment and management of recycling grants, where appropriate, in collaboration with other recycling fellowships in the Greater Region.

In Malta, in accordance with paragraph 10 of Schedule 5 laid down in the Waste Regulations (LN184/11; as amended), measures to promote the re-use or products and preparing for re-use activities are to be addressed in Malta's National Waste Management Plan, which is currently under review.

In Poland, as regards the fostering of the re-use of products and preparing for re-use activities, it must be pointed out that the Act of 29 July 2005 on Waste Electrical and Electronic Equipment provides that ‘the volume of recovered and recycled waste (the entity placing equipment on the market is required to achieve appropriate targets) shall include the volume of waste equipment sent for re-use and the volume of components from waste equipment sent for re-use’. This provision is a measure supporting the above-mentioned activities. Moreover, the Act of 11 May 2001 on Entrepreneurs’ Obligations regarding Management of Certain Types of Waste and on the Product Fee provides that ‘packaging or product shall be deemed to have been placed on the market only once’, as a result of which operators placing reusable products on the market are not required to meet the obligations laid down in the above-mentioned Act.

In Portugal, since it constitutes re-use, an operation included in prevention, this operation is taken into account in the various pieces of legislation and planning instruments on waste, although in a macro approach which is qualitative rather than quantitative. That fact may be inferred from the need to rely on quality standards to support the provision of guarantees for re-used products as well as the incentive for marketing methods and for terminology that promote them among consumers at more
affordable prices. In addition, and in order to increase the lifetime of the products, it will be necessary to require longer warranties for products purchased as new and to encourage the market for spare parts.

At the level of waste streams, those with the greatest opportunities for exclusively promoting re-use are those involving packaging and construction and demolition waste (C&DW). With respect to other streams, for example waste electrical and electronic equipment, although the legislation in force (Decree Law No 230/2004 of 10 December 2004, which transposed Directives 2002/95/EC and 2002/96/EC) emphasises the promotion of all or part of the components of WEEE, it has been found that, in practice, the quantities achieved by the licensed national bodies for the management of that stream have been marginal.

In Romania, due to living standards, the re-use of products is achieved naturally (when purchasing new products the old and functional ones are transmitted to the poorer strata of the population). At the same time, the repair cost is often relatively high, which brings the value of the second-hand product close to the price of the new one. Therefore, most broken products are sent to recycling plants. Thus, Romania stated that at least for now there is no need to introduce additional measures for promoting the re-use of products and preparing for re-use activities.

In Slovakia, the Waste Management Programme for 2011–2015 contains measures to support the re-use and recycling of municipal waste (chapter 3.2.2). In 2012, basic documentation and an outline of the programme for the prevention of waste generation for 2014–2018 was prepared.

In Slovenia, Article 12 of the Decree on Waste states that the Waste Management Programme shall provide for measures to promote preparations for re-use, in particular by promoting the establishment of and support for re-use and repair networks, the use of economic instruments, public procurement criteria, quantitative targets or other measures. Article 16 of the Decree states that those measures relating to promoting the re-use of products shall be laid down in the waste generation prevention programme.

The Operational Programme on Municipal Waste Management (OP RKO) follows the strategic European policy guidelines, which in emphasising waste generation prevention give re-use and recycling priority over the energy recovery of products if and where these are the best options from an ecological point of view. The OP RKO aims to meet the requirements imposed by the environmental targets of at least 50% preparation for the re-use and recycling of municipal waste (at least for waste fractions of paper, metal, plastic and glass). Given the fact that waste, and particularly municipal waste, is still predominantly put to landfill in Slovenia, the measures contained in the OP RKO are intended to redirect waste from landfills to other procedures, with priority placed on preparation for re-use and recycling.

The objectives of the OP RKO regarding preparation for the re-use and recycling of municipal waste are specified using two scenarios for waste paper, plastic, glass and metal and kitchen waste: the scenario of the minimum amount that ensures achievement of the environmental objectives of Directive 2008/98/EC and the scenario of the practicable amount, where the proportion of separately collected kitchen waste is
higher, which ensures a lower volume of mechanical/biological treatment of mixed municipal waste prior to its putting to landfill in order to achieve the environmental targets of Directive 1999/31/EC. Under the minimum amount scenario, 59.8% of all municipal waste will be collected separately for the purpose of re-use and recycling by 2020; under the practicable amount scenario, the proportion of municipal waste collected separately will rise to 63% by 2020. A number of projects have been implemented in order to help meet these targets.

In Spain Article 21(1), (2), (3) and (5) of Law 22/2011 of 28 July have been laid down to promote the re-use of products and preparing for re-use. In addition, the strategic lines of the State Prevention Programme – soon to be approved by the Government – include a line aimed at reducing the amount of waste and another aimed at re-use or extending the life span of products. The first of these lines is focused on four priority areas: food waste, construction and demolition, packaging and disposable products; while the second is geared towards promoting the re-use and extending the life span of furniture, toys and books, textiles, electrical and electronic equipment and packaging (especially commercial and industrial).

In Sweden the purpose of the Environmental Code is reported in chapter 1 section 1 of the Code and it has a very broad scope which comprises the scope in article 1 in directive 2008/98/E. Among other things it states that the legislation should be applied so that raw materials and energy are conserved and opportunities for re-use and recycling are utilized so that a sustainable recycling society is reached. In chapter 2 section 5 of the Environmental Code you find the obligation for any person that conducts a business or takes an action to conserve raw materials and energy and utilize opportunities for re-use and recycling.

In Sweden’s national waste plan adopted in 2012 there is a focus on re-use and recycling. The plan contains the following objectives concerning re-use and recycle:

- The re-use of household waste shall increase, partly through it becoming easier for households to deliver materials and products for re-use or for preparation for re-use.
- The re-use of textiles and recycling of textile waste shall increase.

In the waste prevention program that is under preparation a number of initiatives to promote re-use and high quality recycling presented. During the development of the program there were regular meetings with the industry and businesses to discuss the suggested initiatives that can/should be taken.

In the United Kingdom Waste Prevention Plans are soon to be published across the UK which will pull together policies implementing the requirements of Article 11(1). Many such policies and measures are already in existence. Such measures include non-statutory targets for waste prevention in Wales of a 1.2% reduction year on year on the 2006/7 baseline, actions in the Municipal Sector Plan such as awareness campaigns and service provision and working with organisations such as WRAP to deliver change in the industrial and commercial and construction and demolition waste streams. One policy taken to try and reduce local authority collected MSW is the Single Use Carrier Bags Charge (Wales) Regulations 2010, which introduced a charge for the customer to use
single use carrier bags (with the money raised passed on to charities). Northern Ireland has also introduced a charge on single use carrier bags, and England and Scotland have both announced their intention to do likewise.

Specific measures taken in the industrial and commercial and construction and demolition sectors include the funding of the Product Sustainability Forum, food redistribution services and other re-use or repair schemes. Local authorities and private sector companies in Northern Ireland can access funding through the Rethink Waste Funds to assist with projects which will boost resource efficiency, recycling and waste prevention, and in the case of local authorities to cover the capital costs of infrastructure designed to achieve this. DoENI uses the Rethink Waste Programme to set incentives for waste prevention in Northern Ireland, including re-use, from financial assistance to technical advice. Rethink Waste also includes a communications and education campaign to raise public awareness of waste prevention and how they can contribute, including funding for the Foundation for Environmental Education and using themed weeks such as Composting week or Big Spring Clean. The European Week of Waste Reduction 2012 in Northern Ireland saw 543 registrations, 60% of the overall UK total.

Scotland transposes Article 11 via the Waste (Scotland) Regulations 2012 and provides funding to the Zero Waste Scotland plan which delivers a range of support programmes, campaigns and other interventions to help people and organisations in managing waste in accordance with national policies. One of these programmes is the Re-use and Repair strategy which is designed to increase re-use, including pilot trials, evidence building, development of business cases and the development of specific projects on priority materials.

In England the Government facilitates a Re-use Forum which brings together key players across the re-use sector, along with local authorities and academics in the field to identify barriers along with opportunities, and work collectively towards addressing them. Some local authorities use re-use credits to reward those that re-use items. The Waste and Resources Action Programme (WRAP), provides support to the re-use sector including relevant communications material, research demonstrating the benefits of use and material stream specific guidance. The Government also supports industry initiatives such as the Sustainable Clothing Action Plan which includes measures for the re-use of textiles. A publically available standard for the re-use of electrical equipment was brought in in 2013 (PAS 141) and work is underway on a generic standard for re-use.

3.5.2 Preparation for Re-use and Recycling Targets

Question (6) (ii): In order to reflect the Member State’s record with regard to meeting the targets set out in Article 11 of Directive 2008/98/EC, please fill in the table provided for in point 19 of this Questionnaire. Where targets were not met, please set out the reasons for failure and the actions the Member State intends to take to meet those targets.
Article 11 contains quantitative targets for preparation for re-use and recycling for household waste and for preparation for recovery for construction and demolition waste. These are:

- Article 11(2)(a): by 2020, the preparing for re-use and recycling of waste materials to cover at least paper, metal, plastic and glass from households and possibly from other origins as far as these waste streams are similar to waste from households (to include all municipal waste), at the discretion of the Member State, shall be increased to a minimum of overall 50 % by weight;
- Article 11(2)(b): by 2020, the preparing for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, of non-hazardous construction and demolition (C&D) waste excluding naturally occurring material defined in category 17 05 04 in the list of waste shall be increased to a minimum of 70 % by weight.

A table is presented at the end of the Implementation Questionnaire 2010-2012 in point (19) to be completed with data from Member States on their re-use and recycling performance for household waste and on their recovery performance for C&D waste in the years of the reporting period (i.e. 2010-2012). This table can either be submitted to the Commission as part of the Member State’s reply to the Implementation Questionnaire or the relevant data can be submitted directly to EUROSTAT via the EDAMIS web portal. Question 6 (ii) asks if Member States have completed this table in the Implementation Questionnaire.

For the purpose of verifying compliance with the target pursuant to Article 11(2)(a), Decision 2011/753/EU allows Member States to use four different calculation methods when reporting their re-use and recycling rates for household waste. The difference between the calculation methods concerns the waste types which are covered by each, whereby:

- Method 1: Covers paper, metal, plastic and glass household waste;
- Method 2: Covers paper, metal, plastic and glass household waste, and potentially other material recovery operations;
- Method 3: Covers paper, metal, plastic and glass household waste, and potentially other material recovery operations, plus construction and demolition waste;
- Method 4: Covers all municipal waste.

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39 The term backfilling is newly introduced into the WFD and it is explicitly accepted by Article 11(2) (b) as a recovery operation. However, the WFD itself does not provide a definition for backfilling. Source: Eurostat, and European Commission Guidance on the interpretation of the term backfilling, [http://ec.europa.eu/eurostat/documents/342366/4953052/Guidance-on-Backfilling.pdf/c18d330c-97f2-4f8c-badd-ba446491b47e](http://ec.europa.eu/eurostat/documents/342366/4953052/Guidance-on-Backfilling.pdf/c18d330c-97f2-4f8c-badd-ba446491b47e)

40 Category 17 05 04 refers to soil and stones other than those mentioned in 17 05 03, which are soils and stones containing dangerous substances.


• Method 2: Covers paper, metal, plastic and glass waste, and other single waste streams from households or similar waste stream;
• Method 3: Covers Household waste; and
• Method 4: Covers Municipal waste.

It is worth noting that EUROSTAT only utilises calculation method 4 in its reporting. This could lead to discrepancies between the figures reported by Member States which can use any of the four calculation methods, and the figures reported by EUROSTAT.

For the purpose of verifying compliance with the target pursuant to Article 11(2)(b), Regulation 2150/2002\(^{43}\) allows Member States to report on their generation and recovery rates for construction and demolition waste through using:

• Waste Statistics Regulation (WStatR) data for generation and the national data for material recovery (referred to as the ‘WStatR’ method); or
• National data for generation and for material recovery (referred to as the ‘Other’ method).

The ‘WStatR’ method of calculation is assumed to be a good approximation of non-hazardous C&D waste generation as defined by the Waste Framework Directive. Member States which opt for the ‘Other’ method of calculation may provide more precise national data but have to explain in the quality report they submit to EUROSTAT how the data relate to the WStatR data.

**Pursuant to Article 11(2)(a) on Household Waste:**

Eight Member States submitted data on re-use and recycling rates of household waste for 2010-2012 in their replies to the Implementation Questionnaires. These were Belgium, the Czech Republic, Ireland, Latvia, Lithuania, the Netherlands, Slovakia and the United Kingdom. These countries also reported that they are keeping waste data records and are moving towards meeting the targets contained in the Directive, if these had not yet been achieved. The calculation methods used by these Member States for the purpose of verifying compliance with the target pursuant to Article 11(2)(a), as outlined in Decision 2011/753/EU\(^{44}\) were:

• Belgium: Calculation Method 3.
• The Czech Republic: Calculation Method 2.
• Ireland: Calculation Method 1.
• Latvia: Calculation Method 4.
• Lithuania: Calculation Method 2.
• The Netherlands: Calculation Method 2.


In addition seven Member States submitted additional re-use and recycling figures on household waste to EUROSTAT which were not included in their replies to the Implementation Questionnaires 2010-2012. These were Austria (2010 figure), Croatia (2011 figure), Finland (2012 figure), France (2011 figure), Germany (2011 and 2011 figures) Italy (2010-2012 figures) and Portugal (2010-2012 figures). The calculation methods used by these Member States for the purpose of verifying compliance with the target pursuant to Article 11(2)(a), as outlined in Decision 2011/753/EU were:

- Austria: Calculation Method 2.
- Croatia: Calculation Method 2.
- Finland: Calculation Method 4.
- France: Calculation Method 2.
- Germany: Calculation Method 4.
- Italy: Calculation Method 2.
- Portugal: Calculation Method 2.

Numerous other Member States provided data in various states of completeness. The data received from Member States on re-use and recycling rates of household waste including the calculation methods used is presented in Table A.2 in Appendix A.2.0. Although the targets set are for 2020, Member States are also requested to detail actions they intend to take to meet the targets if they have not done so already.

In addition, Estonia did not provide data for 2010 given the country only joined the EU in 2011. It did however provide data for both 2011 and 2012. Poland is unique in that the requirement to calculate a re-use and recycling rate for household waste only entered into Polish law in 2012. Therefore it was only able to provide data on this for the final year of the reporting period covered in this report. Greece and Romania did not provide any data on household waste for any of the three years covered by this reporting period.

**Pursuant to Article 11(2)(b) on Construction and Demolition Waste:**

Eight Member States submitted data on recovery rates of construction and demolition waste for 2010-2012 in their replies to the Implementation Questionnaires. These were Belgium, the Czech Republic, Latvia, Lithuania, the Netherlands, Poland, Slovakia and the United Kingdom. These countries have also reported that they are keeping waste data records and are moving towards meeting the targets contained in the Directive, if these

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45 Slovakia used calculation method 2 for 2011 and calculation method 3 for 2010 and 2012.
46 The cut-off date was October 2014.
had not yet been achieved. The calculation methods used by these Member States for the purpose of verifying compliance with the target pursuant to Article 11(2)(b), as outlined in Regulation 2150/2002\(^{49}\) were:

- Belgium: Other.
- The Czech Republic: Other.
- Latvia: WStatR.
- Lithuania: Other.
- The Netherlands: Not method reported to EUROSTAT.
- Poland: Other.
- Slovakia: Other.
- The United Kingdom: Other.

In addition five Member States submitted additional recovery figures on C&D waste to EUROSTAT\(^{50}\) which were not included in their replies to the Implementation Questionnaires 2010-2012.\(^{51}\) These were Austria (2010 figure), Croatia (2011 figure), Germany (2010 and 2011 figures), Italy (2011 and 2011 figures) and Portugal (2010 figure). The calculation methods used by these Member States for the purpose of verifying compliance with the target pursuant to Article 11(2)(b), as outlined in Regulation 2150/2002\(^{52}\) were:

- Austria: WStatR.
- Croatia: WStatR.
- Germany: Other.
- Italy: WStatR.
- Portugal: Other.

Numerous other Member States provided data in various states of completeness. The data received from Member States on recovery rates of C&D waste including the calculation method used is presented in Table A. 3 in Appendix A.2.0. Although the targets set are for 2020, Member States are also requested to detail actions they intend to take to meet the targets if they have not done so already.

In addition **Cyprus, France, Greece and Romania** did not provide any data on C&D waste for any of the three years covered by this reporting period.

**Conclusion:**


\(^{51}\) The cut-off date was October 2014.

Eight Member States submitted data on re-use and recycling rates of household waste for all three years covered by this report in their replies to the Implementation Questionnaires. The same eight Member States also provided full details of measures directed at meeting the Directive’s 2020 targets, if these had not yet been achieved at the time of writing this report. In addition seven Member States submitted additional figures on re-use and recycling rates of household waste to EUROSTAT which were not included in their replies to the Implementation Questionnaires 2010-2012.

Eight Member States submitted data on recovery rates of construction and demolition waste for all three years covered by this report in their replies to the Implementation Questionnaires. The same eight Member States also provided full details of measures directed at meeting the Directive’s 2020 targets, if these had not yet been achieved at the time of writing this report. In addition five Member States submitted additional figures on recovery rates of C&D waste to EUROSTAT which were not included in their replies to the Implementation Questionnaires 2010-2012.

A number of countries provided data of varying degrees of completeness for the 2010-2012 period for both household and C&D waste. Two countries did not provide any re-use and recycling data for any of the three years covered in this report for household waste, Greece and Romania, and four countries did not provide any recovery data for any of the three years covered in this report for C&D waste, Cyprus, France, Greece and Romania.

With regards to measures promoting re-use operations during the 2010-2012 period, 21 Member States reported that they have implemented at least some measures to promote re-use operations in 2010-2012. Of the outstanding four Member States, Croatia and Sweden reported that they have legislative apparatus in place to achieve this moving forward. Romania reported that it does not encourage re-use through government channels, but still achieves a high level of re-use because of a large domestic market for second hand goods. Hungary reported that it did not have any substantive measures in place to encourage re-use activities at the time of reporting.

3.6 Separate Waste Collection Schemes

3.6.1 Separate Collection of Dry Recyclables and Bio-Waste

Question (7) (i): Please describe for which waste streams separate collection schemes have been established in the Member State in order to improve and facilitate the recovery of waste and to promote high quality recycling. In particular, which steps have been taken to establish separate collection of paper, metal, plastic and glass by 2015 and to promote the separate collection of bio-waste?

Article 11 is also relevant to this question as it requires that Member States establish a separate collection of waste in order to promote high quality recycling where technically, environmentally and economically practicable. In particular, the separate collection of paper, metal, plastic and glass should be undertaken by 2015. Article 22 which is also relevant to this question requires that Member States take measures to encourage the
separate collection of bio-waste. The purpose of Question (7) (i) is to establish to what extent Member States have taken these requisite steps.

19 Member States have reported that they have taken measures to ensure the separate collection of the four key dry recyclables and bio-waste. Of these, Luxembourg indicated that separate collection had not been established during this reporting period, but would be established by 2015. The detailed replies are provided below. This number also includes Belgium, which did not submit a reply to the Implementation Questionnaire 2010-2012, but for which an alternative data source from the European Environment Agency\(^\text{53}\) showed the country to have established separate collection of bio-waste.

The seven Member States which have not taken measures to ensure the separate collection of the key four recyclables and bio-waste are discussed below:

The Czech Republic reported that aluminium and plastic are primarily collected commingled, but from a technical perspective these two materials are easily separated post-collection, and therefore separate collections may not be necessary in order to ‘promote higher quality recycling’.

Denmark reported that paper and plastic are primarily collected commingled, but the post-collection separation of these materials is also sufficiently easy so that their separate collection may not be necessary in order to ‘promote higher quality recycling’. Malta indicated that bio-waste is not currently separately collected. However, this option was being assessed as part of the revisions to its national waste management plan (covering 2014–2020).

Finland made reference to Section 15 of the Waste Act, which provides stipulations on separate collection and Section 14 of the Government Decree on Waste 179/2012, which requires that operators organise separate collection of the key four materials.

Poland states that it has established the separate collection of paper, metal, plastic and glass, but an alternative data source from the European Environment Agency\(^\text{54}\) indicates that municipal waste is primarily collected commingled and that most recycling occurs after the subsequent sorting of this material.

Bulgaria has no source separation of household packaging waste in place.

Hungary reported that waste producers have an obligation to separately collect waste, but did not describe which waste streams are being collected separately or if indeed producers are fulfilling this obligation. It also states that owners of estates must collect


some components of municipal waste separately, but the only waste type mentioned in this regard was hazardous waste.

Finally, Ireland is primarily collecting its dry recycling commingled.

As yet no Member States have reached a level of separate collection of the key four dry materials and bio-waste available for the greater parts of their populations, based on the replies they provided for 2010-2012, and as such there are no Member States demonstrating what would constitute as best practice. Luxembourg is performing above the average as it reported that almost all households receive door-to-door separate collection of paper and plastic, and have high percentages for metals, and also a relatively high bio-waste collection at 65% of households.

Member States replies are summarised below:

In Austria, in principle waste is kept separate according to type and characteristic in order to facilitate certain treatments. With a view to a ‘separate collection’, the following requirements pertain:

- In the packaging area, collection and recovery systems in accordance with section 11 of the Packaging Ordinance, BGBL II no. 648/1996 648/1996 648/1996 648/1996, as amended require a separate collection of packaging material (paper, cardboard, paperboard and corrugated board, glass, metals, plastics, wood, bonded drinks cartons, and other materials compounds). In addition, recovery and recycling targets for packaging materials are set alongside recycling standard objectives. The packaging materials/wastes are processed under a state of the art system.
- In the field of waste electrical and electronic equipment (WEEE), the Elektroaltgerateverordnung, BGBL II no. 121/2005 (as amended) requires a separate collection of this waste stream.
- § 16 AWG 2002 requires that problematic materials are collected separately by legitimate collectors or handlers, including edible fat and oil wastes.
- The Regulation on the separate collection biogenic waste, Federal Law Gazette I No. 68/1992, provides for a separate collection of certain biogenic wastes, which due to their high organic content are particularly suitable for aerobic and anaerobic recovery. For certain types of waste, where the percentage of organic carbon (TOC) in the solid mass is more than five, this also applies (cf. section 7 landfill sites directive 2008).
- The Regulation on the separation of waste materials in construction, Federal Law Gazette I No. 259/1991, provides for the separate collection of certain groups of substances (e.g. soil excavation, pieces, cements, wood waste, scrap metal, plastic waste) arising from construction. This separate collection has to be performed in a way that a subsequent exploitation of the materials is possible. In addition, the separate collection of hazardous waste and waste oils is also required.
- Section 16 Paragraph 7 AWG 2002 requires that waste arising in the course of construction activities is recycled if this is ecologically functional, technically possible and does not entail disproportionate cost.
In **Bulgaria**, separate collection systems have been established for ordinary waste, i.e. packaging waste, waste electrical and electronic equipment, waste batteries and accumulators, waste oils and end-of-life tyres. Apart from these six ordinary waste streams, the ZUO establishes a requirement (effective as from 1 January 2013) that bio-waste from the areas for public use, parks and gardens must be collected separately and composted. In accordance with the requirements of the ZUO, a project is being implemented to draft a regulatory framework for bio-waste management at the national level. The purpose of the project is to draft the regulatory framework for bio-waste management in accordance with the requirements of EU waste management legislation, for taking an integrated approach to the management of such waste, taking into account the guiding principles of sustainable development, environmental protection and optimum resource utilisation.

To this end, documents have been prepared on the separate collection and treatment of bio-waste; national technical requirements for bio-waste treatment facilities; national technical requirements for residual waste treatment facilities; and methodology for reporting the quantities of biodegradable waste that is diverted from landfills and achieving the targets under the National Strategic Plan for Reducing the Amount of Biodegradable Waste Going to Landfills. The draft regulations on bio-waste management are to be adopted by the Council of Ministers of the Republic of Bulgaria by the end of October 2013. A methodology, including a calculation model to prove meeting of the targets for diversion of biodegradable household waste from landfills, is being developed as part of the regulations.

In **Croatia**, systems for the management of special categories of waste have been established to facilitate and enable the accomplishment of the targets set out in the Sustainable Waste Management Act by 2015. Separate waste collection is provided for in Article 11(6) of the Sustainable Waste Management Act. In addition, Article 35 requires the separate collection of waste paper, metal, glass, plastic and textiles, as well as bulky municipal waste by local self-government units. Several local self-government units may, by mutual agreement, ensure the joint fulfilment of the stipulated obligations. They are also required to participate in the collection of special categories of waste in accordance with the regulations governing the management of such waste. These obligations must be carried out in a manner that guarantees high quality standards, durability and cost-effectiveness, in accordance with the principles of sustainable development, environmental protection and waste management, ensuring the public exercise of these operations (Article 28(2–4) of the Sustainable Waste Management Act).

Requirements concerning the management of bio-waste, which is considered a special category of waste under Article 53 of the Sustainable Waste Management Act, are given in Article 56(1–2). Article 29 of the Sustainable Waste Management Act provides for an economic measure aimed at encouraging separate waste collection, which requires local self-government units to implement measures to reduce the quantity of mixed municipal waste generated in their respective areas, and if they fail to meet the obligations specified in this article they are liable to an incentive charge.
In **Cyprus**, no schemes specifically for separate collection were established during the years 2010-2012. Some municipalities, however, are promoting the separate collection in their district boundaries at a considerable degree for paper, plastic, metal and glass, including promotion of home composting (for kitchen and garden waste). Further to that, many inspection controls took place at waste production points (e.g. supermarkets, commercial places etc.) where the waste producer was informed of its obligation not to mix the various types of waste and in some cases fines were issued for that purpose. Also, two pilot projects where started at the end of 2012 regarding (a) an application of a “pay as you throw” scheme at a part of the Anglantzia municipality and (b) the separate collection of bio-waste (garden and kitchen) at a number of communities where bio-waste is forwarded for anaerobic digestion and/or composting.

In addition an ongoing programme for the separate collection of glass, metal and plastic packaging and paper of all types is already in place since 2006, covering in 2012 the 85% of population of Cyprus. In the waste management plan for household waste and similar types and the Waste Management Strategy actions for the promotion of the separate collection are included. The Competent Authority is in the process of preparing relevant legislation and funding proposals and schemes for the period 2014-2020 as economic incentive for enhancing the separate collection.

In the **Czech Republic**, a container system for waste collection has been implemented primarily for paper, plastic, glass and drinks cartons. This system is available to over 98% of Czech citizens. A bag waste collection system is used in some municipalities as a supplementary waste collection system. In larger municipalities waste collection is also performed through recycling centres. Currently just under 230,000 containers for sorting municipal waste have been distributed in the Czech Republic. This network of collection points is being continually expanded. The average distance to a waste sorting point for a citizen is currently around 100 m.

The waste sorting system in the **Czech Republic** is implemented by the individual municipalities in cooperation with an Authorised Packaging Company (APC). This company provides a system of so-called joint compliance with the take-back obligation and use of packaging waste on the basis of a decision issued for it by the Ministry of the Environment in accordance with the Packaging Act. The authorisation decision stipulates the minimal criteria for this collection network, for the commodities paper, plastic and glass, while the criteria are the minimal density of the collection network, the minimal volume of installed collection containers, and the scope of territorial coverage by this collection network. An Authorised Packaging Company subsidises municipalities’ average financial costs connected with the sorting of packaging waste. The current WMP also has the objective of creating conditions for the separate collection of biodegradable waste and also to increase the level of its material use, e.g., in the form of the creation of a network of regional installations for managing such waste (composting plants, biogas stations) for the purpose of discouraging the landfilling of biodegradable municipal waste. The measures have also been supported through the implementation of projects within the framework of the OPE. The **Czech Republic** is currently preparing a new
Waste Management Plan (WMP) (effective from 1/1/2015) which will include principles and measures on the collection of dry recycling and bio-waste.

In Denmark, requirements are established in the Waste Order concerning the separate collection of paper, cardboard, PVC, impregnated timber, metal, household packaging made from glass, metal and plastic and a scheme for construction and engineering waste from households. Consideration is currently being given to what steps should be taken in order to promote the specific collection of waste food.

In Estonia, the Minister of the Environment Regulation No 4 of 16 January 2007 ‘Procedure for the sorting of waste and the bases of classification of sorted waste’ establishes that the types of municipal waste are to be separately collected: paper and paperboard; packaging, hazardous waste; bio-waste; End-of-Life Vehicles and their parts includes tyres and batteries and accumulators; combustible waste; bulky waste; and metals. These types of waste, if similar to household waste and covered by the definition of municipal waste provided in the Waste Act, must be separately collected also in trade, industry, national authorities and elsewhere (Section 3(3) of the Regulation).

In Finland, Section 15 of the Waste Act states waste of different types and quality shall be collected and kept separate to the extent necessary to prevent hazard or harm being posed to human health or the environment, to comply with the order of priority, or to facilitate the appropriate arrangement of waste management, and to the extent technically and economically feasible. Section 14 of the Government Decree on Waste 179/2012 requires that operators organise separate collection and recycling of paper, cardboard, glass, metal, plastic and bio-waste, taking into account the waste hierarchy and the best environmental outcome based on life-cycle thinking.

Section 16 of the Decree on Waste requires that the holder of construction and demolition waste organises separate collection so that the highest possible proportion of the waste can be prepared for re-use, or otherwise recycled or recovered. Subject to the preconditions provided in section 15 of the Waste Act, separate collection must in this case be organised for at least for the following types of construction and demolition wastes: concrete, brick, mineral tile and ceramic waste, gypsum-based waste, non-impregnated wood waste, metal waste, glass waste, plastic waste, paper and cardboard waste, and soil and waste rock material. Additionally, waste legislation has stipulations on separate collection and recycling of those waste streams to which the extended producer responsibility applies. Hazardous waste may not be mixed with waste of different type or quality, and shall hence always be collected separately (Section 17 of the Waste Act).

In Åland Islands according to Sector 7 and 8, Decree on Waste 2011:74, separate collection should be organized for paper, metal, glass and biological waste. Companies producing construction and demolition waste must separate concrete, brick, mineral tile and ceramic waste, gypsum-based waste, non-impregnated wood waste, metal waste, glass waste, plastic waste, paper and cardboard waste, and soil and waste rock material according to Sector 11 in the same Decree.

In Germany, in addition to the general requirements for waste recovery in section 9, paragraph 1 KrWG and for waste disposal in Section 15 (3) KrWG, special legalisation exists for different waste streams. In line with the Directive, there is an obligation to
separately collect paper, metal, plastic and glass no later than January 2015. In addition, there are arrangements for the separate collection of waste batteries in Section 11 (1) of the Batteries Act (BattG) and for electrical and electronic equipment in section 9 (1) of the Waste Electrical and Electronic Equipment Act (ElektroG).

In Greece, separate collection of specific waste streams (packaging waste; WEE; End-of-Life vehicles; used tyres; waste oils; waste batteries and accumulators; construction and demolition wastes) is implemented under the system of alternative management, which also includes the framework of business activity aiming at recovery operations. In order to promote the separate collection of bio-waste, pilot activities of household composting bins are used and additionally a network for the collection and recovery of edible oils and fats is developing. Moreover, a guide to the separate collection of bio-waste has been issued, which has been distributed to the municipalities in order to promote separate collection in household and municipal waste. More specific measures will be set after the finalisation of the National Waste Management Plan and the waste prevention programme.

In Hungary, pursuant to Article 15(1) of Act XLIII of 2000 on Waste Management, the separate collection of waste for further treatment is the obligation of the waste producer or waste holder. On-site waste collection can be carried out – in a manner excluding potential adverse environmental impacts – in accordance with the criteria laid down in other pieces of legislation, without a permit of the environmental authority. Article 20(3) of the Waste Management Act stipulates that – in accordance with the provisions of the relevant regulation of the local municipality – estate owners must collect various components of the municipal waste (e.g. hazardous wastes) separately, in a manner excluding potential adverse environmental impacts; or must transport them to specific collection sites or hand them over to authorised waste management entities.

In Ireland, local authorities have as a matter of routine attached conditions to waste collection permits to oblige collectors to introduce arrangements for source segregation and separate collection of dry recyclables. The 2011 National Waste Report records that 98% of households provided with a waste collection service have at least a separate collection for dry recyclables. The dry recyclables collection would typically include the commingled collection of at least paper, metal, aluminium and plastic. In addition, the National Waste Report 2011 advises that a separate glass collection is provided for some households within 15 of the 34 local authority areas, yielding a total collection of 4,367 tonnes of container glass in 2011.

In addition, the Waste Management (Food Waste) Regulations 2009 (S.I. No. 508 of 2009) and the European Union (Household Food Waste and Bio-waste) Regulations 2013 (S.I. No. 71 of 2013) provide for producer responsibility at commercial food facilities and households respectively to segregate food waste and send for recovery. The National Waste Report 2011 records that 25% of the available commercial food waste was collected, while 37% of households provided with a waste collection service already had a separate organic bin by 2011. The Irish authorities have also prioritised the provision of an extensive, multi-material national network of bring centres for paper, aluminium cans, textiles and the individual colours of glass container (i.e. green, brown and clear
glass container). Aided in many cases by financial support provided for local authorities, the number of bring centres has grown from 426 in 1995 to some 1,900 in 2011. Similarly, the number of Civic Amenity Facilities (and the range of materials collected in segregated form) has increased steadily from 28 in 1995 to 113 in 2011. The National Waste Report 2011 records that segregation at Civic Amenity Facilities included Organic Wastes, Mixed Dry Recyclables, Paper, Glass, Metals, Plastics, Beverage Cartons, C & D Waste, Wood, Batteries, Waste Mineral Oils, Waste Cooking Oils, Paints, WEEE, Bulky Waste and Household Hazardous Waste. The bring centres and Civic Amenity Facilities have been particularly successful in the collection of container glass, where the level of recycling nationally has now reached 81% according to the National Waste Report 2011.

In Italy, ambitious targets for separate collections have been in place for a considerable period of time. The target of 65% of municipal waste does not include specific guidance on which waste streams should be collected. In general, the choice of streams to be collected and the collection methods are at the discretion of municipalities. Therefore, it is not possible to say for which streams separate collection has been introduced, since this varies from region to region and from municipality to municipality. However, in general, since a producer responsibility scheme exists in Italy for packaging waste, every municipality provides separate collections, or at least kerbside collection, for the principal fractions constituting packaging (paper, cardboard, plastic, metal and glass). Many municipalities in Italy (particularly in northern Italy) already manage bio-waste and green waste separately.

To achieve such high collection targets, waste management systems are increasingly evolving towards ‘integrated’ household collections, rather than the traditional kerbside methods that ‘supplemented’ mixed waste collection. Only household collection which is based on the restructuring of the entire collection service, including mixed waste collection, will achieve the results required by law, while controlling the cost of the service.

In Latvia, separate collections of waste are to be set up in each waste management region according to the respective regional waste management plans. Municipalities must cooperate with waste managers to ensure that each municipality’s residents are provided with a separate collection service with respect to waste such as at least glass, paper, metal and plastic by 1 January 2015. Separate collection points, comprising the installation of one or several containers for the disposal of sorted paper, cardboard, glass, plastic and metal waste by waste producers as well as sorted waste collection sites where it is also possible to dispose of other types of waste (such as hazardous municipal waste, bulky waste, etc.) in an environmentally friendly manner have been set up in order to ensure the separate collection of municipal waste across the entire territory of Latvia.

Meanwhile, management systems for environmentally harmful goods, packaging and end-of-life vehicles have also been established within the framework of the producer responsibility systems. These systems use separate collection points or sorted waste collection sites set up by municipalities and municipal companies on a contractual basis or establish such facilities within their own framework.
In Lithuania, pursuant to the Law of the Republic of Lithuania on Waste Management (Official Gazette, 2002, No 72-3016; 2009, No 154-6961; 2011, No 52-2501; 2013, No 52-2501) and the National Strategic Waste Management Plan (2007–2013) (Official Gazette, 2002, No 40-1499; 2010, No 146-7486), the following waste streams are collected separately in Lithuania:

- hazardous waste (batteries and accumulators, fuel or oil filters for internal combustion engines, intake air filters for internal combustion engines, hydraulic (oil) dampers for cars);
- biodegradable waste;
- secondary raw materials: paper and cardboard, plastic, metal including packaging waste;
- electrical and electronic equipment waste;
- used tyres;
- bulk municipal waste (furniture, etc.);
- construction and demolition waste;
- mixed municipal waste (waste remaining after sorting);
- waste oils;
- End-of-life vehicles.

The Law on Waste Management (Official Gazette, 1998, No 61-1726; 2002, No 72-3016; 2005, No 84-3111; 2008, No 76-2999; 2009, No 154-6961), whose provisions were in force until 31 December 2012, had set out the obligations for operators (producers and importers, waste managers), state and municipal authorities in developing the scheme for the management of waste including packaging waste. Responsibility for the collection, sorting and delivery of waste generated in companies, establishments and organisations to waste managers is born by the holders of this waste. In order to organise the collection, sorting and preparation for recycling or other use of waste contained in the municipal waste stream, the afore-mentioned law has set out the obligations and tasks for municipalities: municipal waste management schemes must be organised in such a way that cities, towns and villages are provided with the tools for waste sorting at source, and that collection of secondary raw materials is made to be convenient by the use of these sorting tools. The National Strategic Waste Management Plan (Official Gazette, 2002, No 40-1499; 2007, No 122-5003) has established specific requirements (tasks) for municipalities on the construction of sites with containers for secondary raw materials or other tools.

In Luxembourg, obligations on separate collection are laid down in Article 13 of the Law of 21 March 2012. Without prejudice to other obligations under the provisions of the Act of 21 March 2012, separate collection should be established no later than 1 January 2015 for paper / cardboard, metal, plastic and glass. A great ducal regulation may determine other waste fractions for which separate collection must be collected separately and the terms and their configuration. On or before April 1, 2014 private or public institutions and residential buildings must be equipped with the necessary infrastructure for the separate collection of various fractions of waste and qualities they produce. In accordance with Article 25 of the Law of 21 March 2012, bio-waste should
be subject to separate collection at the latest by April 1, 2014, to submit the priority to composting or digestion operation or, if due to the nature of the material that is not possible, other appropriate material recovery operation.

In practice, 21 recycling centres are set up for the separate collection of different waste categories. Added to this are three mobile recycling centres and a pilot project of recycling centre type "drive-in" installed in a shopping centre. On average, some 40 categories of waste (not including problematic waste) are collected in recycling centres. The 21 recycling centres are in addition to containers in public places as well as in supermarkets for the collection of paper / cardboard, glass and textiles. In 2011, 97.3% of the population had door-to-door collection for paper / cardboard, 69.4% for glass, 80% for metals, 97.7% for PMC packaging, 65% for bio-waste and 72.2% for garden waste.

In Malta, Regulation 10 laid down in the Waste Regulations (LN184/11; as amended), provides that local councils across the country are to set up separate collection systems by 31 December 2013 for at least paper, metal, plastic and glass in order to promote high quality recycling. All local councils comply with this regulation since all localities across Malta and Gozo are provided with a service for the separate collection of these recyclable materials.

Dry recyclables such as metal, plastic, paper/cardboard and glass are collected separately, either through the use of bring-in sites or through door to door collection of commingled paper, plastic and metal. Currently there is no separate collection of bio-waste. However, this is currently being assessed as part of the revision of Malta's National Waste Management Plan.

In Poland, national legislation (i.e. the Act of 13 September 1996 on Maintaining Cleanliness and Tidiness in Municipalities) was amended in order to establish separate collection. Municipalities were henceforth to take over municipal waste management duties, and were required to establish separate collection of municipal waste for at least the following waste fractions: paper, metal, plastic, glass and composite packaging as well as biodegradable municipal waste, including biodegradable packaging waste. This means that the owner of an occupied property will pay a municipal waste management fee to the municipality, in exchange for which the municipality will ensure collection and appropriate management of municipal waste. The new rules will help promote source separation of waste. This method ensures that high-quality recyclable materials are collected. Lower fee rates for separately collected waste will serve as an incentive. This will help reduce the amount of waste sent for landfilling, as will the creation of new municipal waste recovery or disposal installations. Moreover, municipalities will set up separate collection facilities for municipal waste easily accessible to all inhabitants. In particular, property owners will be able to hand over the following types of waste: waste electrical and electronic equipment, waste batteries, discarded medicinal drugs, chemicals, including paints, solvents and waste oils, furniture and other bulky waste, construction and renovation waste, used tyres and green waste.

Irrespective of the above, separate collection schemes for specific types of waste such as waste electrical and electronic equipment, batteries and accumulators, and wrecks are
carried out. Separate Collection Facilities for Municipal Waste, where inhabitants may leave and purchase goods in very good working condition, giving them a new lease of life, make the idea of re-use of goods a reality. Moreover, used mobile phones are purchased in mobile operators’ stores, where they are subsequently refurbished, as are other devices, e.g. modems, and sold as products.

**Portugal** has been creating systems for the separate collection for packaging waste, plastic, paper, glass, metal and organic waste, which are managed by the municipal or local authority systems. That collection may be carried out door to door or through the depositing of such waste at recycling points located in public places. It should be pointed out that the separate collection of glass and paper started in **Portugal** in the 1980s. With regard to promoting separate collection for bio-waste, this has been implemented with regard to green waste generated at municipal level, which can be composted, since two facilities devoted exclusively to its treatment have already been constructed and another two are under construction.

It should also be reported that the management of specific streams is based on the formation of individual or collective systems, and the creation of a national collection network is still necessary (based on separate infrastructure for the collection/depositing of waste for individuals and/or municipalities). In the case of used cooking oils, and since some 62% by weight is generated by households, municipalities play an important role, being responsible for the implementation of separate collection systems in accordance with the number of inhabitants residing there.

Specifically with regard to the separate collection of paper, metal, plastic and glass, this results from fulfilment of obligations under legislation on packaging and packaging waste (the sole example in which management targets were determined by stream and by material), and the management body ‘Sociedade Ponto Verde’, is extending the scope of its activities to include non-packaging paper (magazines, writing paper, etc.).

In **Romania**, starting from the systems of collecting packaging waste, separate collection schemes have been created for municipal waste, both by colour, and by non-packaging material. For WEEE and batteries, separate collection systems for accumulator waste have been set forth, in compliance with the requirements set forth in the specific law on such waste streams.

In **Slovakia**, separate waste collection has been implemented for paper, metal, glass, and plastic without the possibilities for exceptions. The Waste Act also introduced a special waste collection that separately collects separated household waste containing harmful agents (waste batteries and accumulators, WEEE, waste oils, etc.), small construction waste and bulky waste. Municipalities shall be obliged to ensure the implementation of separate collection for biodegradable municipal waste, unless they avail themselves of one of the exceptions stipulated by the law.

In **Slovenia**, the Order on the Management of Separately Collected Municipal Waste Management Fractions (OGRS, 21/01) lays down that collection points for separate fractions, equipped for the separate collection of the types of waste set out below, must be set up in settlements as part of public municipal waste management services:
- paper and small items of cardboard, including small items of waste paper or cardboard packaging;
- small items of waste glass packaging;
- small items of waste plastic packaging or waste packaging from composite materials; and
- small items of waste metal packaging.

These collection points for separate fractions must, as a rule, be set up in residential areas as well as outside large shops or shopping centres, health centres, hospitals, schools and nursery schools. In city centres or larger residential areas, there should be one collection point for every 500 inhabitants. Collection centres must also be set up as a public service; these must be equipped for the separate collection of waste.

At least one collection centre must be set up in each municipality and in every settlement containing more than 8,000 inhabitants. There must be at least two collection centres for settlements of over 25,000 inhabitants, and at least one collection centre per 80,000 inhabitants for a settlement with over 10,000 inhabitants. There is no requirement for a collection centre to be set up in a municipality with fewer than 3,000 inhabitants if it is ensured, by means of a public service, that municipal waste producers are able to deliver separate fractions to at least one collection centre in neighbouring municipalities. All municipal waste producers shall have access to collection points and collection centres, i.e. anyone whose operations or activities generate municipal waste.

In Spain the separate collection of domestic paper/cardboard waste, glass packaging waste and light packaging waste has been established since the entry into force of Law 11/1997 of 24 April on packaging and packaging waste and of Law 10/1998 of 21 April on waste. The separate collection of bio-waste has only been established in Catalonia and in several municipalities of certain autonomous communities. In addition to these waste streams, the separate collection of other fractions such as cooking oil, textiles and furniture has also been established in many municipalities.

Separate collection for waste industrial oils, batteries, tyres and waste electrical and electronic equipment has also been introduced through specific regulations.

In the area of construction and demolition waste, separate collection has been established in the specific regulations thereon for several of its fractions (concrete, bricks, metal, wood, etc.), when certain generation thresholds for this waste have been exceeded.

In Sweden the general regulations about waste management is in chapter 15 section 5(a) and in chapter 2 (mainly section 5) of the Environment Code. This regulation is described more under question 2. The municipalities can issue regulations about the obligation to store and transport waste streams separate from other waste and other

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actions needed to promote re-use, recycling and recovery (section 74 of the Ordinance on Waste).

Regulations regarding separate storage and transport, mixing bans etc. can be found in section 14, 15, 16 and 30-32 of the Ordinance on Waste. The regulation on producer responsibility you can find in chapter 15, section 6-7 a, the Environment Code and in the ordinances on producers responsibility. The producer responsibility includes an obligation to provide systems for separate collections of waste from the producers and sometimes an obligation for the consumer to separate the waste stream and leave it in a system provided by the producers. The producer responsibility aims to promote high quality recycling. These regulations have opened up markets for waste handlers to develop systems to facilitate the separation and recycling.

There are separate collection schemes for all kind of packaging waste (paper, metal, plastic, and glass). In most municipalities there are curbside collection of packaging and newspaper from apartment blocks. In about 30 municipalities same service is also provided for single-family houses. 60 percent of municipalities collect source-separated food waste. About 20 of them only collect food waste from restaurants and large-scale kitchens, while the remaining municipalities have systems for households as well. An additional 70 municipalities are planning to introduce systems for the source-separation of food waste. The Government has determined a milestone target which defines a step on the way to achieving the environmental quality objective A Good Built Environment. The milestone target is to increase the separate collection and biological treatment of food waste. The Swedish National Waste Management Plan includes information about possible actions to increase the separate collection of food waste and to minimize the food waste. Furthermore there are separate collection schemes for bulky waste and hazardous waste.

In the United Kingdom within England and Wales all collectors of waste are required to collect waste paper, plastic, metal and glass in accordance with Article 11 by 2015. Responsibility for enforcing this duty has been given to the Competent Authorities. The relevant legislation is the Waste (England and Wales) Regulations 2011 as amended by The Waste (England and Wales) (Amendment) Regulations 2012. In Scotland, the relevant legislation is the Waste Management Licensing (Scotland) Regulations 2011 which require specified public authorities to exercise specified statutory functions with the objective of ensuring the separate collection of dry recyclables (paper, card, metal, plastic and glass), where appropriate, and allow for the separate collection of food waste. In Northern Ireland, the transposing legislation is the Waste Regulations (Northern Ireland) 2011.

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All local councils provide kerbside recycling services. Councils across the UK also provide recycling centres for household wastes. The materials collected at the kerbside tend to be glass bottles and jars, metal food cans (ferrous), metal beverage cans (ferrous and aluminium), plastic bottles, mixed plastics (including pots, tubs and trays), paper and cardboard. At civic amenity sites a more diverse range of waste can be collected including other glass items (e.g. broken vases), non-can metals such as cutlery and cooking utensils, tools, taps etc., mixed plastics (including pots, tubs and trays) and a range of paper and card. In order to promote high quality recycling, England and Wales have recently consulted on a regulation to improve the quality of recyclates that come from Material Recovery Facilities (MRFs) that sort commingled recycling. England also published a Quality Action Plan which sets out other actions to promote high quality recycling.

In order to promote separate collection of bio-waste, Wales has provided local authorities with funding for separate food waste collections which has resulted in 92% of households in Wales having a separate food waste collection service provided. The recycling targets referred to in Question 5 also have the effect of encouraging separate collection to raise recycling rates. Northern Ireland is planning to consult imminently on plans to introduce restrictions on the landfilling of food waste and introduce more stringent standards for MRFs in a bid to promote higher quality recycling. Additionally, the Rethink Waste Funds have backed a number of civic amenity sites for recycling. In England, Defra has worked with WRAP to supply education and best practice guidance as well as funding for weekly food waste collections and business food waste collections. 95% of local authorities in England provide a green waste collection service. Further information on the separate collection and treatment of bio-waste, including funding and support for schemes, can be found in the reply to Question 13.

In Scotland, Zero Waste Scotland provides advice and support which includes:

- Good Practice Guidance – This provides technical guidance to help local authorities design and deliver effective waste collection strategies.
- Development of a Food Waste Programme – Funding has been made available to support the roll out of separate food waste collections.
- Compliance Auditing – Offering independent assessments of local authority waste and recycling services with the Scottish Government’s Zero Waste Plan in mind.
- Technical Support – working with local authorities to plan service changes which comply with legislation and are cost effective.
- Local engagement support – providing local engagement support to drive up participation rates.
- Training – supporting the skills and knowledge development for officers and front line staff.

In Gibraltar kerbside recycling is currently in effect with the separate collection of glass, metals and plastics, and paper and cardboard. Further items are collected in a civic amenity site such as waste electrical and electronic equipment, wood and scrap metals.
3.6.2 Commingling of Waste Streams

Question (7) (ii): Which waste streams are collected together or by means of commingled collection, and why?

If waste is not collected separately at source then it is said to be commingled, meaning that it occurs in a waste stream composed of multiple materials. As detailed above in section 3.6.1, Article 11 which is relevant to this question as well, requires Member States to separate out certain waste streams with particular importance placed upon paper, metal, plastic and glass. Article 22, another relevant article to this question, requires the separate collection of bio-waste. In order to shed further light on collection practices in Member States, Question (7) (ii) asks which materials Member States are collecting commingled.

18 countries reported that either no commingling is taking place or else that the commingling of material is in harmony with the requirements of the Directive. Of these, Luxembourg reported that it was primarily collecting packaging waste commingled during the reporting period, but was set to switch to a primarily separate collection by 2015. Best practice comes from Finland, which reported that separate collection is the default and commingling occurs only as justified on a case-by-case basis.

The remaining six Member States gave the following replies:

The Czech Republic reported that it is collecting aluminium and plastic commingled. This practice may not hinder high quality recycling as these materials are easily separated post-collection. Similarly—and as also explained above in section 3.6.1—Denmark’s reported that a practice of collecting paper and plastic commingled may not preclude a high level of material recovery. Within Latvia it was reported that certain municipalities are not capable of delivering source-separated waste collection and therefore municipal and similar waste is collected commingled. A case-by-case analysis of the logistics of collection within these municipalities would need to be undertaken in order to assess whether separate collection is genuinely not technically or economically practical. Poland reported that it is collecting only ‘other waste’ commingled. Bulgaria reported that it is collecting all of its municipal packaging waste commingled, while Ireland reported that it is collecting the majority commingled.

Finally Hungary did not submit a reply to this question in the Implementation Questionnaire 2010–2012.

Member States replies are summarised below:

Austria referenced its reply to the previous question (presented here in Section 3.6.1).

In Bulgaria, recyclable household waste, collected through separate collection systems for packaging waste, must undergo an additional separation when it reaches the relevant separating facilities. Using the existing separate collection systems for packaging waste to fulfil the obligation to collect household waste separately is possible because waste paper and cardboard, metal, plastic and glass are similar to packaging waste. Their commingled collection is recommended because it will result in saving space when the respective receptacles are placed. The additional separation that the
waste undergoes after its collection allows a subsequent correct reporting of the attainment of the packaging and household waste targets.

In Croatia, there are no organised systems in which specific waste streams are collected together depending on properties and possibilities for further recovery.

In Cyprus, the waste streams for 2010–2012 collected together were plastic, metal and tetra pak/drink cartons (PMD) in mixed household waste.

In the Czech Republic the commingled collection of waste is implemented in some municipalities for example for drinks cartons, which are collected together with plastic or paper waste, with the subsequent separation of these waste on sorting lines. The joint collection of these commodities is carried out because the quantities of drinks cartons annually placed on the market in the Czech Republic is relatively low, and in areas with lower consumption of drinks in this type of packaging the implementation of a special collection network would be very uneconomical. In some municipalities, aluminium drinks cans are also jointly collected with plastic waste for the same reasons.

In Denmark, municipal authorities are responsible for organising household schemes. For example, paper and plastic can be collected together for subsequent sorting at a sorting plant. This method of collection is often more cost-effective than sorting at source and is easier for citizens. The Waste Order contains a requirement for waste-generating activities to sort their waste according to source and ensure that a significant proportion of their sorted commercial waste is prepared for re-use, recycled or used for other final material recovery. Waste-generating activities can however arrange for unsorted construction and engineering waste that is suitable for material recovery to be sorted at a registered sorting plant.

In Estonia, different waste streams are generally collected separately. If the separate collection of waste is not organised in the territory of a local government, the local government is required to organise the after sorting of the waste (Section 7 of Minister of the Environment Regulation No 4 of 16 January 2007 ‘Procedure for the sorting of waste and the bases of classification of sorted waste’).

In Finland, waste collection is mainly based on source separation and separate collection of waste streams. However, the final decision on which waste streams are collected together is made locally on a case-by-case basis, depending on how the waste management is organised in the area.

In the Åland Islands no fractions are collected together with anything else.

In Germany, scraps are not collected separately, but are collected together with other materials such as tinplate and aluminium. Metals are collected together with plastics where they can be easily separated in pre-treatment.
In **Greece**, no waste streams are collected together or by means of commingled collection.\(^59\)

In **Hungary**, recoverable components of the municipal solid waste are collected by public service providers in a scheme involving collection in bags and at collection islands, most often in relation to glass, metal, plastic and paper waste. Certain public service providers also undertook to set up home-servicing separate collection schemes for bio-waste. Moreover, separate collection was applied in the given period for wastes representing particularly high environmental risks. Such wastes include hazardous wastes, for the collection and management of which provisions are laid down by Government Decree No 98 of 15 June 2001 on the criteria for pursuing activities related to hazardous wastes, an implementing decree of the Waste Management Act. Article 5(b) of that Decree stipulates that the activities related to hazardous wastes should be planned as to facilitate the recovery of hazardous waste to the highest extent possible. In addition, hazardous wastes from households can be delivered to specific waste yards, where they are again collected separately.

In **Ireland**, commingled kerbside collection of domestic recyclables is the dominant system employed in respect of recyclable material produced from the household waste stream. When the waste management strategies were being put in place in Ireland with a strong priority on recycling of waste, an analysis was undertaken of the relative efficiencies and costs of the various systems for the collection and pre-treatment of dry recyclables. The Strategy adopted for the household waste sector was to maximise the potential yield of high-quality dry recyclables through a commingled collection system designed to provide convenience to the householder, while maintaining costs at reasonable levels. The implementation of the commingled collection has resulted in widespread acceptance and correct use of the collection system by waste producers.

While it is recognised that the commingled approach for household waste entails a significant level of sorting and pre-treatment at the Material Recovery Facility (MRF), the chosen commingled collection system for dry recyclables has proven to work very effectively in Ireland in terms of both the yields obtained and the reliable quality of marketable recyclables produced. In this regard, significant investment has been made in **Ireland** in the development of MRFs around the country.

Material Recovery Facilities in **Ireland** are purpose-designed so as to be capable of segregation, separation, sorting and baling of a mixed feedstock that is delivered in loose, commingled form. This is achieved through a combination of mechanical separation (including optical sorting) and complementary manual sorting processes to produce a standard for each of the specified output waste streams which meets both guarantees of material recovery rates (i.e. in tonnes) and material market specifications (i.e. in quality). The MRF design incorporates modern, well tested and proven principles.

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\(^{59}\) Note that this reply contradicts Greece’s reply as detailed in Section 3.4.2.
for mechanical technology and/or manual methods to maximise efficiency and reliability for separating materials into individual materials meeting market specifications.

In Italy, often in kerbside collections some fractions are collected together, except for paper, which is always kept separate from other fractions, mainly so that it is not contaminated by glass fragments. The fractions that are most often commingled are plastic, metal and glass, although sometimes only two of these fractions are commingled. However, in household collections, it is rare for these fractions to be collected together, and in general collection takes place separately for each individual fraction.

In Latvia, certain municipalities cannot offer a sufficiently convenient and encouraging way of separate collection so far, the reasons being, among other things, population density, access for vehicles to collect and transport waste and other objective circumstances. Therefore, municipal and similar types of waste are collected by municipalities by means of commingled collection.

In Lithuania, metal and composite packaging waste is collected together with plastic waste because the streams of generated metal and composite waste are smaller. The afore-mentioned wastes are separated in specialised facilities by means of available secondary waste sorting technologies, thereby reducing the costs of packaging waste management.

In order to ensure availability of these services, many municipalities organise the collection of household-generated waste by making rounds to collect it from waste holders. EEE waste, old furniture and a variety of other large household articles unfit for recovery are thus collected several times a year. Collected waste is transported to specialised sites where it is sorted and passed to the relevant waste managers.

In Luxembourg, in accordance with article 26 of the Act of March 21, 2012 waste produced by shipyards separately collected in different fractions as far as possible. Where it has been collected mixed, this waste should be submitted separation and sorting operations. In practice, PMC packaging (i.e. bottles / plastic bottles, metal packaging and drinks cartons) are collected together in a plastic bag to be subjected to a sorting operation thereafter.

In Malta and Gozo, household metal, plastic and paper/cardboard wastes are collected commingled. This type of collection is selected mainly to facilitate the collection of dry recyclables from households. Dry recyclables are then sent to a local material recovery facility.

In Poland, every municipality selects the method of municipal waste collection by itself. Waste materials such as paper, plastic, metal and glass are collected separately. Other waste is collected by means of commingled collection. Subsequently, waste is sorted into specific fractions in a waste sorting plant and sent for recovery. This solution has organisational and economic advantages.

In Portugal, examples of where waste is ‘collected together’, include used cooking oils and packaging, since individuals are generally instructed to place the used cooking oil in
a container and only then deposit it in the ‘oleão’ [cooking oil recycling bin], and also waste electrical and electronic equipment incorporating batteries at the time of disposal (which is not serious, since WEEE management bodies are also management bodies for batteries/accumulators). The underlying reason for adopting those kinds of collection is a synergy at collection sites, facilitating citizen participation and also allowing synergies in the collection operation.

Romania responded that there were no cases of waste streams being collected together or by means of commingled collection.

In Slovakia, within the separate collection of paper, metal, glass, and plastic, no distinction is made as to whether the waste is from packaging or not. In case of WEEE that includes inbuilt batteries or accumulators, it is possible to collect WEEE together with the waste battery or accumulator; however, the processor of WEEE shall subsequently be obliged to remove the batteries and accumulators from WEEE and ensure their hand-over to the person who carries out the recovery of waste batteries and accumulators.

In Slovenia, the following waste streams are collected together:

1) household kitchen waste (20 01 08) and green garden cuttings (20 02 01) are collected together in a special container separately from other separately collected municipal waste and mixed municipal waste fractions as part of implementation of the compulsory public municipal waste collection service;

2) waste packaging from plastic, metal and composite materials from households; in the handling process, this waste is separated into individual packaging materials (different plastic materials, iron and steel, aluminium, composite materials such as Tetrapak);

3) waste paper and small items of cardboard waste, including small items of waste paper or cardboard packaging; same recovery process;

4) owing to the characteristics of individual categories of electrical and electronic equipment (chiefly because of the presence of dangerous substances and the method of recovery), WEEE is collected separately in five different collection/recovery groups:
   a. waste cooling and freezing appliances (20 01 23*; EEE Categories 1 and 10)
   b. waste television appliances, monitors and cathode ray tubes (20 01 35*; EEE Categories 3 and 4)
   c. waste large household appliances (20 01 36; EEE Categories 1, 5 and 10)
   d. waste small EEE (20 01 36; EEE Categories 2–5 and 7–9)
   e. waste gas lamps (20 01 21*; EEE Category 5).

In Spain, there are several streams that are collected by means of commingled collection depending on the separation models used in the municipalities. Table 3.1 illustrates the separation models used in Spain for waste that is under municipal responsibility.
Table 3.1: Commingled Collection in Spain

<table>
<thead>
<tr>
<th>Type 1</th>
<th>Type 2</th>
<th>Type 3</th>
<th>Type 4</th>
<th>Type 5</th>
<th>Type 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>5 fractions</td>
<td>Wet/dry</td>
<td>Multi-product</td>
<td>4 fractions + pruning</td>
<td>4 fractions</td>
<td>3 fractions</td>
</tr>
<tr>
<td>Glass</td>
<td>Glass</td>
<td>Glass</td>
<td>Glass</td>
<td>Glass</td>
<td>Glass</td>
</tr>
<tr>
<td>Light packaging</td>
<td>Other + Light packaging</td>
<td>Light packaging</td>
<td>Light packaging</td>
<td>Other (includes bio-waste)</td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>Other</td>
<td>Other</td>
<td>Other (includes bio-waste)</td>
<td>Other (includes bio-waste + light packaging)</td>
<td></td>
</tr>
<tr>
<td>Bio-waste</td>
<td>Bio-waste</td>
<td>Bio-waste</td>
<td>Garden waste</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Other: undifferentiated fraction not considered as separate collection.
The light packaging fraction contains metal and plastic packaging and carton waste.
Separation models used in Spain for waste under municipal responsibility.

In separation models 4, 5 & 6 where the separate collection of bio-waste has not been introduced, this is collected in the other fraction (residual fraction). Law 10/1998 of 21 April did not introduce the separate collection of bio-waste as an obligation. This has meant that for the most part, this fraction is collected together with the residual fraction, as there was no Community or national legislation that obliged the separate collection thereof. To reduce biodegradation capacity and comply with the Landfill Directive, this bio-waste is treated in mechanical-biological treatment plants.

The separate collection of light packaging waste was introduced as a result of approving Law 11/1997 of 24 April, which transposed the obligations of Directive 94/62/EC on packaging and packaging waste. Once collected, this fraction is classified by material in specific plants.

In Sweden in all municipalities the waste left after source-separation is collected in bins and bags for waste-to-energy recovery. In section 19 in the Ordinance on waste60 there are exceptions from the mixing ban of hazardous waste. Since all households do not

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always follow the mixing ban on hazardous waste the mixed municipal waste might in part consist of hazardous waste. The exception in section 19 is a necessity to be able to collect and handle mixed municipal waste.

In the United Kingdom The Waste (Scotland) Regulations 2012, paragraphs 2(3)(b), 2(5), provide a derogation in legislation that will allow for waste streams to be collected together if it can be proven that the amount of material recycled will not be significantly less and the quality of the material recycled will not be significantly lower. The regulations for England and Wales closely follow the wording within the Directive, providing for the twins tests of necessity and practicability.

In some local authorities in England, Wales and Northern Ireland, glass, metals, plastics and paper are collected commingled all together, or partly separate and partly commingled (the “twin” or “triple” stream approach). In some, food and garden wastes (and sometimes cardboard) are co-collected. Within England and Northern Ireland the most important factor in moving to a more separate form of collection for many local authorities will be upfront costs. Many Waste Collection Authorities are party to long term contracts which are not economically practicable to break. Where the authority carries out the work in-house it is the embedded investment in infrastructure—particularly waste collection lorries - which is more relevant.

To try and help with this issue in England, the Weekly Collection Support Scheme encourages councils to focus on better weekly collections, environmental improvements, and better use of innovative ideas or technology to help residents recycle more and do their bit for the environment. 90 bids from a mix of areas and geographical spread were successful. 20% of successful bids added weekly collections of food waste. There are also a few long-term difficulties with separate collection that have been flagged by local authorities: lack of space to store additional bins and within waste transfer units, congestion on streets making kerbside sorting unfeasible, and difficulty of collecting from dispersed communities. Defra and the Welsh Government are working together to consider producing guidance on what is judged as environmentally and economically practicable in order to further assist local authorities with separate collection. Northern Ireland will produce similar guidance.

Gibraltar currently collects metal and plastics as commingled in kerbside recycling. The reason for this is that as Gibraltar has serious space limitations and no recycling facilities within Gibraltar, the recycling material is exported to the neighbouring member state Spain where the collection of these are commingled in this manner and the authorised recycling facility in Spain accepts the material in this form.

**Conclusion:**
19 Member States have either reported that the practice of collecting dry recycling and bio-waste materials separately at source has been established, or else an alternative data source\(^{61}\) was located which indicated that this was the case (Belgium).

The eight Member States which reported that they had not established source separated collection on these materials were: the Czech Republic, Denmark, Malta, Finland, Poland, Bulgaria, Hungary and Ireland. In some cases where these practices had not already been reported as established, the Member State replies indicated that work was progressing in line with the requirements of the Directive in 2010-2012, as in Luxembourg and Malta. In cases where materials are being collected commingled, as in the Czech Republic and Denmark, this may not constitute a breach of the Directive if separation post-collection is sufficient to facilitate high quality recycling, and the general ease of separation of the named commingled materials suggests this may be the case.

18 Member States have reported that either they had no commingling of waste taking place or else that where commingling was taking place that this was in harmony with the requirements of the Directive.

Six Member States reported that commingling is taking place. These are: the Czech Republic, Denmark, Latvia, Bulgaria, Poland and Ireland. Of these, those indicating the greatest reliance on commingled collection are Bulgaria and Ireland, where this is the primary method of collection.

Hungary did not provide a reply to this question.

3.7 Safe Disposal Operations

Question (8): Please describe the measures taken to ensure that waste undergoes safe disposal operations which meet the requirements of Article 13 of Directive 2008/98/EC on the protection of human health and the environment. In line with the waste hierarchy, which measures have been taken to reduce the landfilling of waste? In particular, has the Member State introduced landfill bans or economic instruments to divert waste from landfills? What measures have been taken to prevent the abandonment, dumping or uncontrolled management of waste in line with Article 36(1) of Directive 2008/98/EC?

Article 13 requires that waste management operations are carried out without endangering either human health or the environment; Article 4 sets out the preferential order of waste treatment options in the form of the waste hierarchy, in which disposal features as the least desirable option. Together, these two articles entail that measures should be taken to move waste up the hierarchy, out of landfill, but that where disposal

does occur, it should do so without harm to the environment or human health. **Article 36 (1)** requires that Member States take measures to prohibit uncontrolled disposal operations, such as waste abandonment and dumping. **Question (8)** asks Member States to elucidate on the legislation and on measures they have put in place to ensure that disposal is minimised, and to ensure that where it does occur, it is controlled and environmentally safe.

18 Member States have implemented a satisfactory package of measures to move waste out of landfill and to ensure that where waste is disposed of, it is done so legally and safely. This number includes **Belgium**, which did not submit a reply to the Implementation Questionnaire 2010–2012, but for which an alternative data source from the European Environment Agency\(^{62}\) indicated that the Member State has implemented an array of landfill bans and has one of the highest landfill taxes in Europe. Of the countries with a satisfactory package of measures in place, **Malta** is distinct in that it reported that it has imposed no additional fee on landfilling, but still enjoys economic conditions favourable to the waste hierarchy in that recovery costs are lower than those of landfill. The detailed replies are provided below.

**Nine Member States** provided replies indicating that a satisfactory package of measures may not be in place.

**Croatia** provided a high level description of legislation in place and the goals of this legislation, but did not provide much elucidatory detail on how this legislation has translated into implemented measures.

**Cyprus** reported that it has made considerable progress in tackling uncontrolled dumping during the reporting period, closing 113 illegal sites between 2010 and 2012. However, two illegal dumpsites are still operating, albeit with the authorities working to minimise the types of waste entering into these.

**Greece** has reported that it has improved its control of disposal activities through a programme of inspections and penalties, but at present illegal dumping has not yet been fully eliminated.

**The Czech Republic** referenced its national Waste Act and Decree No 294/2005 on the conditions of depositing waste in landfills and its use on the surface of the ground.

**Finland** has reported that it has implemented measures to move waste out of landfill, but only provided information on anti-dumping measures for the Aland Islands.

**Lithuania** reported that it is currently lacking in measures to move waste out of landfill, but has been in the process of implementing a landfill tax, which will come into force in January 2016.

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The **Netherlands** did not submit a reply to the Implementation Questionnaire 2010–2012. An alternative data source from the European Environment Agency\(^63\) indicates that the country was one of the first nations to implement a landfill tax. However, it has now repealed this measure due to the administrative burdens it creates outweighing the benefits as the country currently has very low levels of landfilling.

**Poland** did not provide a full reply to this question, covering only landfill diversion measures, and not touching upon the safe operation of landfills or anti-dumping measures.

Finally, **Hungary** only reported that a landfill charge was brought into effect in 2013, and did not provide any information on the environmental safety or waste dumping control measures in 2010-2012.

Good practice is shown by **Germany**, which reported that it has established strict criteria on the disposal of organic substances, and where all waste going to landfill must first be pre-treated. Also **Finland** and the **United Kingdom** reported that they have established landfill taxes which have been a success in moving waste out of landfill.

**Member States replies are summarised below:**

In **Austria**, in accordance with Article 15, paragraph 3 AWG 2002, waste must be collected, stored and handled using only equipment approved for this purpose, and waste operations must only take place at approved locations. A deposit of waste may only be made in approved landfill sites. Conditions for waste disposal installations are given in section 43 para. 1 Art. 1 par. 3 AWG 2002 IVM. These include stipulations against risk to human health and the environment, the requirement that the operation of the treatment plant does not generate avoidable waste, and that state of the art technologies shall be adopted to maximise preparation for re-use and recycling, or in so far as this is not economically feasible, that waste be properly disposed of. The reduction of landfilling of waste is based in particular on the national strategy for the reduction of biodegradable waste going to landfills. The Commission has been notified of Austria’s strategy, and the country has already exceeded the landfill diversion targets contained in the Landfill Directive. Part of the strategy is a ban on the landfilling of waste with organic carbon (TOC) in its solid mass of more than five percent.

An effective tool is also the electronic storage of records and messages on waste movements (EDM, this is a Government-Anwendung, the co-operation between businesses and public authorities in the implementation of legal obligations in the field of the environment and makes standardisation easier). Missing data or irregularities in reported data provides an indication of breaches of rules, and can easily be detected. E.g., it is possible to check whether only permissible waste has been deposited at a landfill.

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landfill. Infringements of the AWG 2002 will be enforced against using effective and proportionate sanctions. 79 AWG 2002 lists more than 60 offences.

In Bulgaria, Regulation No 8 of 24 August 2004 on the Conditions and Requirements for the Setting-up and Operation of Landfills and of Other Waste Recovery and Waste Disposal Installations and Facilities (Regulation No 8) (promulgated in the State Gazette No 83 of 2004, amended in No 27 of 2011) establishes the requirements for the environmentally sound setting-up and operation of waste landfills through which human health and the environment are protected.

The ZUO establishes a mechanism for the provision of financing for the closure and after-care of the site of the relevant waste landfill. For operations related to the disposal of waste by landfilling, each landfill owner is required to provide collateral covering the future costs of the closure and after-care of the landfill site. The collateral may be in the form of:

1) monthly deductions into an escrow bank account of the Regional Inspectorate of Environment and Water (RIEW) covering the area in which the landfill is located; or
2) monthly deductions into an escrow bank account blocked for the period ending with the completion and acceptance of the measures for closure and after-care of the landfill site, with the exception of the cases where such deductions may be used in line with the procedure established by Article 62 of the ZUO; or
3) a bank guarantee in favour of the respective RIEW covering the area in which the landfill is located.

The funds accumulated during the operational phase of the landfill are used for the operations related to closure and after-care of the landfill site.

In Croatia, The Sustainable Waste Management Act requires a permit to ensure that waste management is conducted in accordance with Article 9 of the Sustainable Waste Management Act. Article 27 of the Act introduces a measure regulating the municipal waste disposal charge. Moreover, in accordance with the waste management priority order, recovery operations are given priority over disposal operations. This article also includes provisions that define when waste may be disposed of, rather than undergo recovery operations. Alternative disposal operations have priority over landfilling (Article 8(1, 3, and 4) of the Sustainable Waste Management Act). Article 9 of the Sustainable Waste Management Act provides for waste management in a manner that prevents adverse effects on the environment and human health, and in particular to avoid the following:

1) Risks of sea, water, soil and air pollution and risks to biodiversity.
2) Nuisance caused by noise and/or odours.
3) Adverse impacts on areas of cultural, historical, aesthetic and natural significance, or on other assets of special interest.
4) Explosions or fires.

Article 167 of the Act provides for a fine of HRK 300,000.00 to HRK 700,000.00 in the event that waste management is conducted in a manner that poses a risk to human
health and has harmful effects on the environment. Articles 24 and 25 of the Sustainable Waste Management Act set time limits and quantity limits for the depositing of biodegradable municipal waste in landfills and for the depositing of waste in non-compliant landfills. Article 27 stipulates provisions regarding the obligation to pay the municipal waste disposal charge, which will be calculated on the basis of the amount of waste deposited in a landfill.

In Cyprus, in order to ensure safe disposal of waste a new sorting plant servicing Larnaca-Ammochostos (Koshi/area) districts started operation on 01/04/2010 with co-funding from the EU. This unit is an MBT plant producing compost in combination with mechanical recovery of recyclable materials (glass, metal, plastic, paper). The maximum designed capacity is 160,000 tn/y MSW, whilst the input of the plant is 116,758 tn/y MSW (2011). The plant only accepts mixed MSW (after the diversion of packaging and packaging waste at the source) and the residual waste is disposed to the residual landfill adjacent to the plant. No landfill ban/tax is in place as yet.

Cyprus managed to close 113 illegal dumping sites during the years 2010-2012 with two still in operation. However, several attempts are made in order to minimize the quantity disposed at the two sites. Several types of waste are being forbidden to enter these disposal sites like hazardous, construction and demolition, WEEE, packaging waste etc. Also, a number of measures are taken and are about to take place for the promotion of recovery and recycling (see above), so that waste dumping be minimized. Further to that, Cyprus is planning to construct in the near future (until late 2015) a landfill site in Limassol.

In the Czech Republic, European regulations have been implemented into national legislation, namely into Act No 185/2001, on waste and on the amendment of some other Acts, as amended (hereinafter the “Waste Act”) and Decree No 294/2005, on the conditions of depositing waste in landfills and its use on the surface of the ground and amending Decree No 383/2001, on the details of waste management. In the case of the construction of landfills, their expansion, re-cultivation etc., Czech Technical Standards ČSN 8380-30, 32, 33, 34, 34-Z1, 35, 35-Z1, 36, and 39 must be complied with, stipulating strict requirements for the construction of the individual phases of a landfill, including subsequent care and monitoring. In the case of the disposal of waste through incineration, the provisions of Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) must be complied with. The measures adopted in accordance with the waste hierarchy were primarily the stipulation of landfilling fees. The amounts of the fees for landfilling are stipulated in Annex No 6 to the Waste Act.

The Czech Republic is to gradually increase the fee for landfilling, which will continue until the complete ban on landfilling of at least mixed municipal waste. The closest possible date for this ban is 2025. Thanks to support from the Operational Programme Environment installations have been constructed that enable a different method of managing waste than its disposal (material or energy recovery). The national legislation names the concrete types of waste that may not be landfilled in the Czech Republic.
(Annex No 5 to Decree No 294/2005, on the conditions of depositing waste in landfills and its use on the surface of the ground).

In **Denmark**, the implementation of the waste hierarchy ensures that disposal in the form of landfill is a last resort and is only used if the other steps in the hierarchy cannot be used. According to the waste provisions, municipal authorities are responsible for classifying waste, establishing schemes for waste and designating suitable processing options as regards household waste and commercial waste for incineration and landfill disposal. Households and undertakings have a duty to use the municipal authority’s scheme or to follow the municipal authority’s instructions. Waste that is suitable for incineration which is to be disposed of must therefore be processed at the incineration plants specified by the municipal authority. This could for example be a high-temperature incineration plant which destroys hazardous waste. A ban on the landfill disposal of waste that is suitable for incineration was introduced on 1 January 1997.

In **Estonia**, according to Section 35 of the Waste Act, the deposit of untreated waste in landfills is prohibited. However, the obligation to treat waste before deposit does not extend to waste the treatment of which does not reduce the quantity of waste or the hazard arising from the waste to human health or the environment, and to such inert waste the treatment of which is technically not viable.

Most of the waste generated in **Estonia** comes from enterprises active in the mining and processing of oil shale. Oil shale-related waste accounts for almost 80 % of the total waste generation. The processing of oil shale produces mine waste, most of which used to be deposited due to a lack of waste management technologies. However, a technology has now been developed which allows the mine waste produced by the mining of oil shale to be processed in a way that allows most of the material to be considered a by-product, because the material has properties equal to those of construction aggregate. The old mine waste deposits are being dug through, as the previously used technologies produced mining waste containing about 30 % oil shale. In the process of digging through the deposits, fine oil shale and limestone (for producing construction aggregate) are separated out.

In **Finland**, Section 13 of the Waste Act states that waste may not be abandoned or treated in an uncontrolled manner. Waste and waste management shall not pose a hazard or cause harm to human health or the environment, pose a danger of littering, or cause impairment of general safety or any other comparable violation of public or private interests. The principle underlying waste management is to employ the best available technology and to comply with best environmental practices. According to the Environmental Protection Act (86/2000), Section 28, environmental permits are needed for all activities that may lead to pollution of the air and water or contamination of the soil, including treatment of waste on a professional basis or at an installation. An environmental permit may be granted for activities that meet the requirements of the Environmental Protection Act and the Waste Act and the decrees issued under them.

**Finland** has introduced a landfill tax. At the moment the tax is 50 €/ton. Furthermore, the country will prohibit the landfilling of most organic wastes from 1 Jan. 2016 onwards.
(Government Decree on landfills, 331/2013). From that date organic wastes may only be landfilled if their total organic content (TOC or LOI) is below 10 %. Wastes that are exempted from the prohibition are listed in the section 28. To construction and demolition waste the prohibition will apply from the beginning of year 2020. Competent authorities may grant temporary exemptions from the above landfill ban for the maximum period of one year if the waste, for its characteristics, is not suitable for any other treatment than landfill.

In the Åland Islands it is prohibited to deposit bio-waste on landfills, except for dead wild animals, pets and animal by-products, according to Sector 5 Decree on Landfill, 2007:3. A special tax has to be paid when waste is put on a landfill. It is forbidden by Section 8a the Act of Waste 1981:3 to abandon, dump or handle waste carelessly. The one who is responsible for abandon or dumping waste is obliged to clean up the area. If the responsible person is not to be found the obligation for cleaning is the municipality responsibility, Sector 30 Act of Waste 1981:3.

In Germany, Articles 12 and 13 of Directive 2008/98/EC are transposed by Article 15 KrWG. Section 15 (1) sentence 2 KrWG requires that quantities of waste and its harmfulness be reduced. In addition, it is required that disposal operations do not affect ground water or harm human health. The Landfill Directive is transposed into national law through §§ 34 to 44 KrWG. There is no general ban on the disposal of waste to landfill, as landfills play an essential role in life cycle management, allowing certain pollutants to be removed from the system. However, there are strict criteria on the disposal of organic substances, and only pre-treated waste may go to landfill. As a consequence, it has not been lawful to deposit untreated municipal waste in landfill since 2005. The overall result of these measures is that in Germany only about 10% of the total waste generated goes to landfill. In addition, the illegal handling of certain waste, in accordance with section 326 of the Penal Code, is a punishable offence.

The abandonment, dumping or uncontrolled management of waste is controlled administratively within the framework of Articles 47 et seq. KrWG and prevented by Section 69 (1) and point 2 KrWG. §§ 51 and 62 KrWG allow the competent authority to issue orders on a case-by-case basis.

In Greece, specific measures are implemented transposing European legislation and ensuring the disposal of waste in an environmentally sound way, aiming at the protection of human health and the environment. Regarding municipal waste, uncontrolled dumping has been reduced by the development of an integrated municipal waste management network, including landfills and recycling facilities. Moreover, special measures are undertaken in order to divert biodegradable municipal waste form landfilling, such as: (i) municipal waste treatment in Units of Mechanical Separation and Composting, and in Mechanical Separation and Recycling Units, (ii) household composting using specific bins (iii) development of the network for the collection, transport, storage and treatment of the waste coming from edible oil and fat destined for the production of biodiesel. Moreover the construction of additional waste management facilities is envisaged. A landfill tax has been introduced in national legislation, with different rates of tax applicable to different waste types.
According to national legislation, non-hazardous industrial waste producers / holders are responsible for ensuring such waste undergoes safe disposal operations. Especially for hazardous waste, the producer / holder must complete the identification document (Article 20, paragraph 2 of Law 4042/2012) in detail and must receive it signed from the final disposal facility, ensuring that final disposal is completed. Moreover, inspections are carried out in order to avoid dumping, according to Article 19 of Law 4042/2012 (OJG 24 A) and penalties are imposed where infringements are traced.

In **Hungary**, although no waste landfilling fee was introduced in the 2010–2012 period, a waste landfilling fee was introduced on 1 January 2013 when the Waste Act entered into force. The waste landfilling fee is paid by the operators of waste landfills for disposal operations D1, D2, D3, D4, D5 and D12 on a quarterly basis. The amount of such fees is specified by the Waste Act for the type, nature and form of the waste.

In **Ireland**, Section 32 of the Waste Management Act imposes a duty of care on a person not to cause or facilitate the abandonment, dumping or unauthorised management or treatment of waste, or to hold, transport, recover or dispose of waste, or treat waste, in a manner that causes or is likely to cause environmental pollution. Section 34 of the Waste Management Act provides that a person other than a local authority shall not generally collect waste, save under and in accordance with the provisions of a waste collection permit.

**Ireland** has imposed a landfill levy rate of €75 per tonne on the landfill of waste since 1 July 2013 in order to stimulate recycling and increase diversion from landfill. The Technical Guidance Document (TGD) “Municipal Solid Waste: Pre-treatment and Residuals’ Management” published by the Environmental Protection Agency is of particular importance in promoting a reduction in the amount of waste being sent to landfill. The TGD constitutes associate guidance in support of its formal sectoral guidance notes on the determination of national Best Available Techniques (BAT) for the waste sector (Landfill BAT, Waste Transfer BAT, Composting BAT, etc.).

With regard to measures to prevent the abandonment, dumping and uncontrolled management of waste, it is a matter in the first instance for the each individual local authority to deal with any instances of illegal disposal of waste in their area and take the appropriate enforcement action. Local authorities have significant powers available to them under the Waste Management Act 1996, as amended, to enable them to tackle illegal waste activity.

In **Italy**, Article 182 of Legislative Decree No 152/2006 states that ‘Waste disposal is carried out safely and represents the residual phase of waste management, subject to verification, by the competent authority, of the technical and economic impossibility of recovery operations.’ The same article also states that ‘Landfilling operations are governed according to the provisions of Legislative Decree No 36 of 13 January 2003, implementing Directive 1999/31/EC.’ The provisions of Legislative Decree No 152/2006 aimed at promoting re-use and preparing for re-use and increasing the percentage of separate collections, recovery and recycling are all measures aimed at reducing the landfilling of waste. In addition, Article 182-ter is specifically aimed at reducing the
amount of bio-waste sent to landfills, assigning the Regions, municipalities and Optimal Management Areas (Ambiti territoriali ottimali – ATOs) the task of encouraging the separate collection of bio-waste, its treatment and the use of environmentally safe materials resulting from the treatment of bio-waste.

Specific economic instruments to divert waste from landfills are also in force. First, Article 3(24) of Law No 549 of 28 December 1995 introduced an environmental tax on the landfilling of solid waste. Furthermore, Article 205 of Legislative Decree No 152/2006 contains an additional penalty of 20 % on that tax for those municipalities that do not meet their separate collection targets. Article 192 of Legislative Decree No 152/2006 governs the ban on abandonment while Article 256 sets out the penalties applicable to uncontrolled waste management activities.

In Latvia, the owner or operator of a landfill, waste dump, other disposal or recovery facilities must:

1) obtain pollution permits specified in the laws governing environmental protection before the operation of the landfill or other disposal or recovery facilities is commenced;

2) operate the landfill, waste dump, other disposal or recovery facilities in accordance with the category A or B pollution permit, this Law and other laws governing environmental protection; an

3) take measures and cover the expenditure associated with the closure of the landfill or waste dump as well as the termination of the operation of disposal or recovery facilities.

When obtaining the permit prior to the commencement of the operation of the landfill, the owner or operator of the landfill must provide financial security or its equivalent to confirm the fulfilment of the requirements specified in the relevant permit as well as requirements regarding the closure of a landfill and environmental monitoring to be performed during the after-care phase. Detailed requirements as to the setting up, operation, closure and re-cultivation of landfills are listed in Cabinet Regulation No 1032 of 30 December 2011 “Regulation of Landfill Setting up, Landfill and Waste Dump Operation, Closure and Re-cultivation”.

Waste disposal and the sale or utilisation of certain goods for the purposes of economic activity are subject to natural resource tax (hereinafter referred to as “NRT”). According to the NRT Law, the purpose of NRT is to promote the economically efficient use of natural resources, mitigate environmental pollution, reduce the manufacturing and sale of environmental pollutants, promote the implementation of new environmentally friendly technologies, support the sustainable development of the national economy as well as render financial support to environmental protection measures.

In Lithuania, to protect the environment and human health, waste is accepted at a landfill only if it fulfils the acceptance criteria of the relevant landfill class as set out in Council Decision 2003/33/EC and the conditions laid down in the Rules on Construction, Operation, Closure and After-Closure of Landfills (Official Gazette, 2000, No 96-3051; 2010, No 79-4111). The landfill operator makes the waste acceptance criteria and the
specific waste acceptance procedures publicly available and specifies the documents to be produced upon the delivery of waste to the landfill. During the operation of the landfill and in the after-closure phase where, according to the assessment performed by the Regional Environmental Protection Department under the Ministry of the Environment, the landfill may pose a risk to the environment and human health, the operator carries out environmental monitoring (of leachate, surface and ground water, gas) in accordance with the procedure established by the Law on Environmental Monitoring No VIII-529 of 20 November 1997 of the Republic of Lithuania (Official Gazette, 1997, No 112-2824; 2006, No 57-2025).

Measures taken to reduce the landfilling of waste include: plans to introduce a landfill tax, the building of one mechanical treatment plant and 10 mechanical-biological treatment plants by 2015, and the creation of a system of green waste composting sites (with 34 constructed with EU funding assistance since 2004 and a further 19 planned). Pursuant to the requirements of the Rules on Construction, Operation, Closure and After Closure of Landfills (Official Gazette, 2009, No 74-3032; 2010, No 79-4111), landfilling of biodegradable waste resulting from the management of gardens, parks and plantations is banned as of 1 January 2013.

To prevent the abandonment, dumping or uncontrolled management of waste, the legislation lays down requirements concerning the appropriate management of waste in a manner that is safe for environment and public health. Raids and campaigns are organised taking into account the annual inspection priorities. Non routine inspections are set up upon the receipt of complaints concerning inappropriate waste management activities, environmental pollution by waste. Upon observation of instances of environmental pollution, natural or legal persons may also notify environmental authorities by using the contacts provided in the Hotline on the website of the Ministry of the Environment. Financial penalties established in the Code of Administrative Offences of 13 December 1984 of the Republic of Lithuania (Official Gazette, 1990, No 36-862; 2011, No 52-2502; 2008, No 135-5227; 2013, No 57-2855) and the Law on Environmental Pollution Taxes No VIII-1183 of 13 May 1999 of the Republic of Lithuania (Official Gazette, 1999, No 47-1469; 2002, No 13-474; 2013, No 55-2728) are applied for the environmental pollution by waste and waste management in case of failure to comply with the requirements laid down in waste management legislation.

Luxembourg, in accordance with Article 15 of the Law of 21 March 2012, only residual waste should be subject to a disposal operation. Waste for which a recovery operation is not performed must be duly authorised for disposal in line with the protection of human health and the environment. Regarding landfilling, neither a ban nor economic instruments have been implemented. The installation and operation of landfills is to be authorised by the Minister for the Environment in accordance with section 30 of the Act of 21 March 2012. The technical and operational requirements for landfill are set out in Regulation grand Ducal Regulation of 24 February 2003, transposing into national law Directive 1999/31 / EC on the landfill of waste. In 2015, the landfill for household and similar waste from the municipal association SIDEC will be closed. After mechanical biological treatment, the remaining high calorific fraction will be incinerated at the
facility of the municipal association SIDOR. Residual waste will be landfilled at the SIGRE site. From that date, Luxembourg will have only one this one landfill for non-hazardous waste. No hazardous waste landfills exist in the country.

In accordance with Article 42 of the Law of 21 March 2012, the abandonment, dumping or uncontrolled management is prohibited. Penalties and sanctions for non-compliance with Article 42 are:

- Imprisonment of eight days to six months and / or a fine of 251 to 100,000 euros for anyone undertaking an activity prohibited under Article 42 involving hazardous waste;
- A fine of from 25 to 1,000 euros for anyone undertaking an activity prohibited under Article 42 involving non-hazardous waste;
- A warning taxed from 25 to 250 euros; and
- Administrative measures to be taken by the Minister.

Pursuant to Article 20 paragraph 9) of the Act of 21 March 2012 the municipalities must adopt municipal regulations on waste management, and in this context it is proposed that municipalities include sanction measures on the abandonment, dumping and uncontrolled management of waste.

In Malta, Part 1 of Schedule 5 laid down in the Waste Regulations (LN184/11; as amended) provides that the overall objective of the waste management plans and waste prevention programmes is to ensure that waste undergoes safe disposal operations which meet the provisions of Article 13 of Directive 2008/98/EC on the protection of human health and the environment. Furthermore, the same schedule specifies that the waste treatment methods to be adopted nationally for the various waste streams should follow the waste hierarchy.

Moreover, all waste management facilities have to be fully permitted to carry out specific operations by the competent Authority. This will reduce the possibility to have uncontrolled management of waste, while at the same time all operations will be in line with the conditions laid down in the permit, which takes into account the protection of human health and the environment.

The Malta Environment and Planning Authority is responsible for enforcing provisions laid down in the Waste Regulations (LN184/11; as amended). In accordance with regulations 34 and 35 laid down in the Waste Regulations (LN184/11; as amended), any person who commits an offence under those regulations shall be fined accordingly as per the rates laid down in regulation 35. Furthermore, regulation 36 of The Waste Regulations, provides that Chapter 9 of the Laws of Malta (The Criminal Code) shall apply mutatis mutandis.

In Poland, a waste management system specified in provincial waste management plans was put in place in order to reduce the landfilling of waste. This system covers, inter alia, the development of separate collection of waste, the provision of a sufficient number of modern waste recovery and disposal installations as well as broadly understood environmental education for inhabitants in specific provinces.
There are strict requirements regarding the location, construction, closure, remediation and monitoring of landfills and the need to obtain a permit for the construction of a landfill, a decision approving a landfill operation instruction and a permit for its use, a waste treatment permit or an integrated permit as well as a decision approving the closure of a landfill significantly increase the costs of landfilling, thus indirectly diverting waste from landfills. Also criteria and procedures for the acceptance of waste at a given type of landfill (in accordance with the regulation laying down the criteria, which specifies what type of waste may be deposited at a given type of landfill) are a factor reducing waste streams sent to landfills for disposal. Moreover, the Act on Waste introduced the above-mentioned landfill ban on certain types of waste. It must also be borne in mind that new landfills may only be built if the construction is approved in a provincial waste management plan.

A separate collection scheme, under which all waste producers pay waste collection fees irrespective of the amount of generated waste, was established and information campaigns are carried out in order to prevent the abandonment, dumping or uncontrolled management of waste. Such campaigns are carried out both at the central level (the Ministry of the Environment) and at the regional level (municipalities). A separate legal instrument is the applicability of presumption (definition of ‘waste holder’) and decisions of a mayor of a municipality, a mayor or head of town administration to remove waste from places not intended for landfilling or storage. Moreover, under Article 293(3) of the Environmental Law Act, for the landfilling of waste in a place not intended for this purpose an entity using the environment is required to pay increased fees of 0.7 of a unit fee rate for depositing waste at a landfill per tonne of waste and per day of landfilling. Importantly, this fee is charged per each day of landfilling until waste is removed. Entities managing waste that fail to ensure the protection of human life and health and the environment are subject to imprisonment or a fine.

In Portugal, the measures taken to ensure the safe disposal of waste consist of the licensing requirement for those activities, which results in the need for approval for waste disposal projects and for the operators which carry them out. The measures taken to reduce the disposal of waste in landfill are set out in Decree Law No 183/2009 of 10 August 2009, which transposes into Portuguese law Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste. That law strengthens the application of the waste management hierarchy, laying down rules to minimise the landfilling of waste which has the potential for recycling and recovery, through restrictions on the admission of waste to be included in the permit.

For the purposes of reducing biodegradable municipal waste for landfill, the following objectives were determined in accordance with the derogation from the targets set out in Directive 1999/31/EC:

- By July 2013, biodegradable municipal waste for landfill must be reduced to 50% of the total amount, by weight, of biodegradable municipal waste produced in 1995; and
• By July 2020, biodegradable municipal waste for landfill must be reduced to 35% of the total amount, by weight, of biodegradable municipal waste produced in 1995.

The measures taken to prevent the abandonment, dumping or uncontrolled management of waste are embodied in the system of administrative offences defined in Articles 66 to 71 of the RGGR, and it should be emphasised that they are regarded as very serious administrative offences of an environmental nature. Cross-cutting elements in the legislation on specific waste streams have encouraged environmentally friendly design among producers placing products on the market, in particular in the gradual use of less hazardous substances in their production (usually heavy metals such as hexavalent chromium, cadmium, lead, mercury, some flame retardants, etc.) in order to promote their re-use and recovery and to reduce their negative impact on the environment and human health when they reach end of life (qualitative prevention), as well as the involvement of inspection and supervisory bodies in checking compliance with rules on the environmentally sound management of waste, with administrative penalties laid down for infringements.

In Romania, waste disposal activity is subject to an environmental permit, and the permit includes all the measures that have to be taken throughout the operation of waste storages, so that waste disposal is carried out under conditions of safety, in compliance with Directive 2008/98/EC and Directive 1999/31/EC. Additionally, Law no 211/2011 on waste regime specifies that waste producers and owners shall have the obligation to dispose under safe conditions of waste that has not been recovered, and that business operators holding an environmental permit for waste disposal shall have obligations including ensuring full disposal of the waste handed over to them, and using the best available techniques that do not imply excessive costs for the disposal of the waste. Furthermore, waste management shall be carried out in such a way as to not endanger human health, and without harming the environment, especially without generating any risk to the air, water, soil, fauna or flora, without creating any discomfort on account of the noise of odour, and without having a negative impact on the landscape or on the special interest areas.

In order to reduce the landfilling of waste, Government Emergency Ordinance no 196/2005 on the Environmental Fund, with subsequent amendments and supplements, applicable to the public authorities in charge of waste organisation and management at local level, on their administrative territory, introduces the objective of reducing by 15% the amount of waste disposed of by landfilling from the municipal and similar waste, collected by the public sanitation service. As regards bans applicable to landfills, it is forbidden to finally dispose by landfilling packaging waste, except for the waste resulting from selective collection or from a sorting process, that cannot be recovered or incinerated in incineration plants with energy recovery, and it is forbidden to finally dispose by landfilling electric and electronic equipment waste. Last but not least, Romania emphasised that through thematic and unannounced controls the National Environmental Guard oversees that the provisions of the law are observed.

In Slovakia, Section 21 of the Waste Act sets out obligations of the operator of waste disposal facilities, who is inter alia obliged to:
• dispose waste in compliance with the permit for operating waste disposal facility;
• operate waste disposal facility in compliance with approved operational manual;
• ensure that waste is kept safe from misappropriation or undesirable release;
• keep facility operation records and records;
• on the basis of the waste management public authority's decision and in extraordinary cases, especially if it is necessary in terms of human and environmental health, carry out waste recovery if such is technically possible for the operator; the costs incurred due to such decision shall be paid by holder of waste;
• notify, without delay, the competent district environment authority of rejection of waste accepting by the waste disposal facility due to the activities under items D1, D5, and D10;
• eliminate negative conditions and impacts discovered at waste landfill monitoring activities.

Provisions of section 18(4)(g) of the Waste Act forbid the landfilling of:

1) liquid waste;
2) waste that, given the landfill conditions, is explosive, corrosive, oxidizing, highly flammable or flammable;
3) infectious waste from healthcare and veterinary facilities; and
4) used and shredded tyres with the exception of tyres that might be used as construction material at building landfills, bicycle tyres and tyres with external diameter exceeding 1400 mm.

Section 18(4)(m) of the Waste Act prohibits to dispose of biodegradable waste from gardens, parks, including waste from cemeteries and waste from other green areas located on sites belonging to legal persons, natural persons or civil associations, if this waste is part of municipal waste, and pursuant to letter p) to dispose of or recover for energy waste batteries and accumulators, with the exception of disposing of unrecoverable remaining parts of waste batteries and accumulators that have passed through the process of treatment of recycling under items D1 and D10. Section 18(4)(a) prohibits to landfill or leave waste on sites other than sites designated for this purpose in compliance with the Waste Act. Breach of the said prohibition is punishable and sanctions may be imposed on natural person - owner of businesses amounting to 16,596.95 Euros, and 165.96 Euros in case of physical person. Provisions of sect. 39(8) of the Waste Act state that producer of municipal waste and small construction waste shall be obliged to take part in the system of municipal waste collection in their municipality, make use of collection containers appropriate for the given system of municipal waste collection, and store municipal waste or separated components thereof as well as small construction waste on the sites and into the containers designated by local municipality for the purposes of its collection in its territory.

In Slovenia, measures taken to ensure that waste is disposed of safely and in accordance with the provisions of Article 13 of Directive 2008/98/EC on the protection of human health and the environment include the Decree on the Landfill of Waste (OGRS, 61/2011) which determines the limit values for emissions of substances into the environment resulting from the landfill of waste, the rules of conduct and other
conditions applying to landfills, conditions and measures applying to the planning, construction, operation and closure of landfills and their post-closure management with the aim of minimising adverse impacts on the environment for the entire period of operation of the landfill. All landfill operators require an environmental permit to operate a landfill.

The compulsory separate collection of waste has been introduced to minimise the volume of waste put to landfill. In addition, it is prohibited to put a range of waste types to landfill, including:

1) Any waste whose pollution levels exceed the limit values of the pollution parameters and the limit values of the leachate parameters for individual types of waste laid down in the Decree on the Landfill of Waste.

2) Mechanically/biologically treated municipal waste, unless their depositing at a municipal waste landfill is permitted by the ministry under the provisions of Articles 7 and 8 of the Decree on the Landfill of Waste.

3) Waste which, in light of the landfilling conditions at the site, is explosive, caustic, corrosive, oxidising, highly flammable or flammable under the Decree on Waste, or waste that accelerates burning.

4) Containers filled with pressurised gas;

5) Substances that react strongly to contact with water.

6) Laboratory waste and other chemical substances that are generated by research and development or educational activities and that are unidentified or are new, with the effects on human beings or the environment being unknown;

7) Waste industrial and vehicle batteries and accumulators, except for battery and accumulator residues after treatment or recycling, if they meet the conditions for the landfilling of non-hazardous waste;

8) End-of-Life motor vehicles and their unrecovered components generated during their dismantling;

9) Waste electrical and electronic equipment, except for recovery residues meeting the conditions applying to the putting of non-hazardous waste to landfill;

Article 17 of the Decree on Waste prohibits the abandonment of waste in the natural environment, the dumping of waste and the uncontrolled management of waste. A holder of waste (legal entity) is subject to a fine of between EUR 10 000 and 30 000 for this violation; the responsible person of the legal entity is also liable, being subject to a fine of between EUR 2 000 and 4 100. If a holder of waste is a sole trader, he is subject to a fine of between EUR 6 000 and 20 000 for this violation and the responsible person of the sole trader to a fine of between EUR 2 000 and 4 100. A holder of waste who is a natural person is subject to a fine of between EUR 2 000 and 5 000 for this violation.

In Spain to ensure that the waste undergoes safe disposal operations, Article 23 of Law 22/2011 of 28 July lays down a duty upon environmental authorities, within their respective areas of competence, to ensure that where recovery pursuant to Article 21(5) is not carried out waste shall undergo safe disposal operations adopting the measures that guarantee the protection of human health and the environment. The waste must undergo treatment prior to disposal except where the treatment is not technically...
practicable or is not justified due to reasons of protecting human health and the environment. In addition permits for waste disposal operations may be subject to the provision of a security or other financial guarantee. The requirement of these guarantees shall apply without prejudice to any other guarantees that could be required of the subjects responsible for the waste management.

To ensure the fulfilment thereof, Law 22/2011 of 28 July introduces:

- Article 43 on competences and means of supervision, inspection and control;
- Articles 44 to 56, on infringements and the penalty scheme, where the infringements regarding the dumping of waste are classified.

Law 22/2011 of 28 July introduces Article 16 in order to make it possible to adopt measures and economic, financial and fiscal instruments to promote the application of the waste hierarchy and reduce landfilling. Most of the autonomous communities in Spain have introduced legislation to levy varying levels of tax on the landfilling of differing categories of wastes. At national level, the possibility of establishing a tax on permanently landfilling waste is being assessed, in order to harmonise this existing legislation across the nation and move forward with the effective application of the waste hierarchy.

In Sweden the Environmental Code’s portal section and general rules of consideration form the basis for application of the EU’s waste hierarchy in Swedish waste legislation. According to chapter 15 section 5a of the Environmental Code the holder of a waste must ensure that the waste is managed in a healthy and environmentally sound manner. This section shall be applied with the other rules about waste management and the general rules of consideration in chapter 2 of the Environmental Code. Including the fundamental rule for consideration which means that everybody who is to take a measure must perform those protective measures, observe the limitations and take the precautionary measures that are required in order that the measure will not harm health of the environment. Ordinance on the landfill of waste (2001:512), SEPA Guidance on Ordinance on the landfill of waste (2004:5 and 2002:17) and SEPA Regulations on landfill of waste, criteria and procedures for the acceptance of waste at facilities for landfill of waste (2004:10) contains provisions and guidance on landfill on waste. Permit to an activity which includes landfill on waste can only be approved if the operator provides economic security. Chapter 22 regulates the procedure at the environmental courts in application cases and what a permit shall specify (section 25-25 e). According to chapter 15 section 35 of the Environmental Code the operator shall charge for all the costs for the landfill on waste. Landfill ban of burnable waste was introduced in 2002 and was extended to include all organic waste in 2005. Together with a landfill tax introduced in 2001 these instruments have been very effective to divert waste from landfill. Furthermore the producer responsibility promotes sorting, collection and recycling of certain waste flows. There are also requirements concerning the sorting of burnable waste which promote energy recovery (section 14 and 15, the Ordinance on waste).

Dumping and incineration of waste in Swedish territorial waters is forbidden according to chapter 15 section 31 of the Environmental Code. In chapter 29 section 8 (12)
Environmental Code there is a penal provision for violation of the prohibition and in chapter 29 section 4 of the Environmental Code there is a penal provision for the offence of unlawful environmental activity that means that someone intentionally or by carelessness commences or conducts an activity without having acquired the necessary permit or similar approval.

Regulations regarding supervision can be found in chapter 26 in the Environmental code and in the Ordinance on environmental inspection (2011:13).

In the United Kingdom for England and Wales, in respect of the disposal of waste to meet the provisions of Article 13, Regulation 12 of The Environmental Permitting (England and Wales) Regulations 2010 states that: A person must not, except under and to the extent authorised by an environmental permit, operate a regulated facility (carry on a waste operation). The Environmental Protection Act 1990 is also used in enforcing the Articles in Scotland in conjunction with the Waste Management Licensing (Scotland) Regulations 2011. The Regulatory Reform (Scotland) Bill currently before the Scottish Parliament will provide SEPA with a greater range of enforcement measures that they can apply in order to protect the environment. These will include fixed (up to £2,500) and variable monetary penalties (ranging up to £40,000) for environmental offences which include fly-tipping, the level being based on the seriousness of the offence.

In Northern Ireland, the Waste and Contaminated Land (Northern Ireland) Order 1997 effectively transposes the Articles by prohibiting the unauthorised or harmful depositing, treatment or disposal of waste, establishing a Duty of Care on anyone who produces or handles waste, and requiring licence for any undertaking keeping, treating or disposing of waste, to be registered and assessed under such terms and conditions the competent authority feels are appropriate. The Order also creates offences for those managing waste in an unauthorised or harmful manner, including unauthorised transportation of waste. It further establishes options for the recycling and recovery of waste, whilst placing a duty on DoENI and local authorities to prepare plans for waste management.

Landfill Tax is a primary economic incentive for diverting waste from landfill in the UK. The Tax in England is currently £72/tonne but this will increase to £80/tonne by the start of the 2014/15 tax year, with the Tax remaining at least at this level until 2020. The Tax, and other policies to encourage the prevention, recycling and recovery of waste, are sufficient to meet UK landfill diversion targets. There are currently no landfill bans in England (other than those required under the Landfill Directive). Before bringing forward any proposals on restricting any materials, the UK Government will need to be content that restrictions are the best-value way of moving material up the waste hierarchy and that the costs to businesses and the public sector are affordable. It continues to gather evidence to look at this issue.

The Scottish Government has introduced the Waste (Scotland) Regulations 2012 which will, from 2014, ban materials collected separately for recycling going to landfill (or incineration) and a ban on all biodegradable municipal waste going to landfill from 2020. Furthermore, the Waste (Wales) Measure 2010 gives Welsh Ministers the power to introduce landfill bans for recyclable or recoverable materials, whilst the Landfill Allowances Scheme (Wales) Regulations allow the Welsh Government to prescribe a maximum allowance for landfilling of biodegradable municipal waste for each local authority. Targets for less than 5% landfilling by 2025 have also been set in Wales, whilst the recycling targets as set out in Question 5 also contribute towards driving waste up the waste hierarchy. Northern Ireland is also consulting on policies and legislation to introduce landfill restrictions and recycling targets in an attempt to drive waste away from landfill, and already operates a Landfill Allowance Scheme for local authorities based on Landfill Directive targets.

Gibraltar currently exports all waste and recyclates to neighbouring Member State Spain, the competent authority controls all movements of waste by licencing and registration regimes which control the transport method and final disposal to an authorised waste treatment disposal facility. This is currently legislated for in the Public Health Act section 192 (D).

**Conclusion:**

*Just under two thirds of Member States (18) have either reported that in 2010-2012 they implemented a full range of measures ensuring that waste is moved out of landfill in accordance with the waste hierarchy, and making sure that in cases where it is disposed of, this occurs in a manner not detrimental to the health of humans or to the environment, or else an alternative data source* \(^65\) *was located which indicated that this was the case (Belgium). This includes measures to prevent uncontrolled dumping. Landfill tax has been reported as the main policy measure directed at moving waste out of disposal, with a system of inspections and penalties being used to regulate the illegal dumping of waste. Environmental protection is generally ensured through a permitting system.*

*The outstanding Member States are: Croatia, Cyprus, Greece, the Czech Republic, Finland, Lithuania, the Netherlands, Poland, and Hungary. Although the Netherlands did not submit an Implementation Questionnaire 2010–2012, an alternative data*

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source\(^{66}\) was found which stated that the Member State has repealed landfill measures such as its Landfill Tax, because landfilling is at a very low rate currently.

Although uncontrolled dumping is still a problem in Greece and Cyprus, much work has been done in 2010-2012 to curtail this practice.

3.8 Polluter Pays Principle

3.8.1 Implementation of Principle

Question (9) (i): Please explain briefly the system according to which the Member State gives full effect to the polluter pays principle.

The polluter pays principle states that those who are responsible for generating pollution should also be responsible for the management of that pollution.\(^{67}\) Article 14 of the Directive applies this principle to waste management, requiring that costs be borne by either the original producers of waste or else by the current or previous waste holders. Question (9) (i) asks Member States how this principle is implemented.

26 Member States have either reported that they have given full effect to the polluter pays principle in their waste management practices, or else an alternative data source indicated that this was the case (the Netherlands). The Netherlands did not submit a reply to the Implementation Questionnaire 2010–2012, but a report by the European Environment Agency\(^{68}\) indicated that the country has producer responsibility schemes in place for a number of waste streams. The detailed replies are provided below.

It is worth noting that Malta’s reply only covered producer responsibility measures, and did not mention responsibilities of waste holders within the municipal system or the implementation of the principle therein. The United Kingdom reported that municipal waste management costs are borne primarily by municipalities, although some limited producer responsibility measures are in place.

Best practice was reported by Luxembourg, which reported that it has introduced a pay-as-you-throw element into the charges made on households for municipal waste collection, whereby charges vary in accordance with the amount of waste actually produced.

Member States replies are summarised below:


In **Austria**, the costs incurred in the management of municipal waste are covered by a communal ‘waste fee’, by scoring in the marketing of recyclables revenue, and by monies paid by Inverkehrsetzern in collective licensing system contributions. In some cases separate municipal bio-waste disposal fees or contributions are collected during the handover of waste. By this, and by the regional conditions on waste fees, it is ensured that the waste costs are borne by each polluter. Waste producer have to pass waste on to an authorised waste collectors or waste processors if they themselves do not have permission to treat the waste or are not capable of doing so (§ 15 para. 5 and para. 5a Act 2002).

Furthermore, § 73 AWG 2002 determines that the Authority applies the necessary polluter pays measures if:

1) waste is not collected in accordance with the provisions of this Federal Act, regulations made under this Act, in accordance with EU Waste Shipment Regulation or in accordance with EC POP V, stored, transported, or treated; or

2) The safe treatment of the waste is required to avoid disruptions to public interests (paragraph 1 (1) (3) AWG 2002).

In **Bulgaria**, Article 7 of the ZUO establishes the obligations of persons carrying out waste-related operations. Persons whose operations involve the generation of waste and waste holders must treat the waste themselves or must submit the waste for collection, transport and treatment to persons entitled to carry out such operations in accordance with this Act. Where waste has been delivered for preparation before recovery or disposal, the original producer or holder remains responsible for the complete recovery or disposal of the waste.

Article 54 and Article 55 of the ZUO clearly define the obligations for payment of the costs of waste treatment. The costs of collection, preliminary storage, treatment and transport of waste are borne by the original waste producer or by the current or previous waste holder, as well as by the persons placing on the market products which, after use, produce ordinary waste, in the cases specified by the ZUO. When the waste producers are unknown, the costs of environmental remediation are borne by the persons holding the waste. All costs of environmental remediation and of identification of the actual waste producer are recovered from that producer. The cases and conditions under which responsibility is borne by the original producer of the waste along the entire chain from waste collection to treatment, and under which responsibility is shared and transferred among the persons involved in the collection and treatment chain, are laid down in the ordinances referred to in Article 13(1) of the ZUO and Article 43 of the ZUO, without prejudice to the application of Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste.

In **Croatia**, Article 6(1)(1) of the Sustainable Waste Management Act introduces ‘the polluter pays principle’ – the waste producer, the previous waste holder or the current waste holder bears the costs of waste management measures, and is financially responsible for the implementation of remediation measures to be taken due to damage caused or likely to be caused by waste. The obligations of product producers are
stipulated in Article 6(2), Article 42 and Article 65. The obligations of waste producers and waste holders are included in Article 44(1–5) of the Sustainable Waste Management Act.

The obligations of the provider of the service of collecting mixed municipal waste and biodegradable municipal waste are stipulated in Articles 32 and 33 of the Sustainable Waste Management Act, while Article 33 requires him to calculate a fee for this service in a manner that guarantees the implementation of the polluter-pays principle, an economically viable business, and a safe, regular and high quality service in accordance with the provisions of the Sustainable Waste Management Act and secondary legislation.

In Cyprus, waste producers and waste holders are regularly inspected in order to secure that the waste produced is given to a licensed waste collector or treatment facility. The cost is covered by the waste producer/holder for the waste produced in his facilities. In some cases, the waste producer and the product producer may have an agreement and the cost of waste management is undertaken by the product producer.

In addition, for certain streams of waste, the producer responsibility principle is applied through relevant legislation. Such streams of waste are vehicle tyres, WEEE, batteries and accumulators and packaging. In these cases, the persons that place the product in the market pay the cost for the setting up of the management of products that become waste. Five collective management systems are in place; one for packaging (Green Dot Cyprus), one for WEEE (WEEE Electrocycling), one for waste batteries and accumulators (Afis Cyprus) and two for tyres (RTM and E4C).

In the Czech Republic the polluter – meaning the producer of the waste – always bears the costs for waste management. Although the management of waste from a municipality is ensured by the individual municipalities, they do not bear the costs for the waste produced by citizens. The costs in the municipality’s municipal waste management system are paid by the initial producers of the waste through a fee either according to Section 10b of the Act on Local Charges or according to Section 17a of the Waste Act. The amounts of these fees depend on the actual costs for waste management for the calendar year in question.

A PAYT system has been implemented and covers around 10% to 15% of municipalities. The possibility of collecting payments for municipal waste using this system is also being considered in new (currently under preparation) legislation (the material focus of the Waste Act).

In Denmark, all municipal waste management is financed by charges which are levied on those who generate waste according to the ‘polluter pays’ principle (the municipality’s inhabitants and undertakings). The charges levied on households vary depending on which municipality you live in and are often of the order of DKK 2 000 – 2 500 per household per year. The charges levied on undertakings also vary from municipality to municipality. It is the municipal authority that decides the level of service within the framework of the legislation; hence the charge can already vary for this reason.

All activities under the direction of the municipal authority, including collection, recycling, incineration and landfill disposal, are subject to the ‘cost-neutral’ principle, which means that the municipal authority can recover its costs and that a profit must not
be generated. Municipal credit loans are used for investments, but provisions may also be made for future investments within certain limits.

In Estonia, according to Section 128 of the Waste Act, damages related to the release of waste into the environment and to the pollution created by waste, including the costs related to waste management and to the remedy of the effects of environmental pollution caused by waste, shall be covered by the person who released the waste into the environment, or the polluter. Waste which is released into the environment unlawfully shall be handled and the remedy of the effects of pollution caused thereby shall be organised by the polluter at the expense of the polluter. If, within one year after the initiation of misdemeanour proceedings in a matter of release of waste into the environment, the polluter has not been established, and also if, based on environmental protection considerations, the waste must be removed and the effects of pollution must be remedied without delay, then the waste management and remedy of the effects of pollution shall be organised, based on a precept of the environmental supervision agency, local government or local government agency, by the landowner on whose land the waste is located or the pollution took place.

According to Section 28 of the Waste Act, a waste holder is required to handle the waste in the possession thereof according to the established requirements or transfer the waste for handling to a person holding the corresponding right. Waste holders must have adequate information concerning the types, quantities and origin of the waste in their possession, concerning its properties relevant in terms of waste handling and concerning the hazards resulting from the waste to health, the environment or property. Furthermore, a person transferring waste must, under the circumstances, be convinced that the transferee holds a waste permit or an integrated permit granting the right to handle the waste transferred. If waste is transferred for handling that does not require a waste permit or integrated permit, the person transferring the waste must, under the circumstances, be convinced that the transferee is competent to handle the waste and has the relevant technical and environmental protection equipment.

In Finland, according to the Waste Act, Sections 20 and 21, the original producer of waste, or the current or previous holder of waste, shall bear the costs of waste management. The costs of waste disposal, and the related fee, shall include the costs of establishing a disposal facility or site, the use of the site or facility, decommissioning, aftercare and financial guarantee required for waste treatment, and other comparable costs. The fee charged for waste disposal in a landfill shall include the estimated costs of aftercare for a period of at least 30 years.

The waste-holder is responsible for the cost for handling and for treatment of the waste unless it is producers-responsibility in the Åland Islands according to Sector 16a, Act of Waste 1981:3.

In Germany, the KrWG takes account for the polluter-pays principle through basic responsibilities on waste producers and owners for the recycling and disposal of their own waste. There are exceptions for all waste from private households and for waste where public service bodies are responsible for disposal.
The polluter-pays principle is not only implemented by the KrWG, but also through the collection of taxes, to the extent that the disposal is carried out by the public authorities, where disposal fees are transferred to the polluter. Private waste disposal costs are regulated in the waste disposal contract between collectors and holder. In the context of product stewardship, manufacturers and distributors have to pay the costs, unless other circumstances pertain pursuant to Section 25, paragraph 2, POINT 1 KrWG.

In Greece, according to national legislation the producer / holder of the waste is responsible for waste management. Moreover, the municipalities and the waste management bodies are responsible for municipal waste management. Undertakings or establishments that are involved in waste management shall follow the environmental permits issued either for collection and transport, or for final recovery or disposal. In case of infringements, civil, administrative and / or criminal penalties are imposed. Moreover, the legislation for environmental liability with regard to the prevention and remedying of environmental damage is applied (Directive 2004/35/CE of the European Parliament and of the Council of 21 April 2004, as transposed in national legislation by Presidential Decree 148/2009 (OJG 190 A)). It should also be mentioned that the provisions of Directive 2008/99/EC on the protection of the environment through criminal law are implemented by the respective transposition act (Part A of Law 4042/2012 (OJG 24 A) “Protection of the environment through criminal law in compliance with the Directive 2008/99/EC”). In addition, polluter pays principle is also implemented through extended producer responsibility.

In Hungary, the polluter-pays principle was/is applied by both the waste management act which was in force until 31 December 2012 and the Waste Act, in force since 1 January 2013. The provisions of Articles 14 and 15 were/are implemented by both environmental product fee schemes: the one which was in force until 31 December 2011 and the revised scheme in force since 1 January 2012. The product fee is paid by the entity placing the product subject to product fee on the Hungarian market for the first time or the user using the product for own purposes, and this product fee covers the collection and recovery of a specific proportion of the waste of the product subject to product fee.

In Ireland, Section 31A of the Waste Management Act provides that in accordance with the polluter pays principle, the costs of waste management shall be borne by the original waste producer or by the current or previous waste holders. Virtually all waste collection in the state is now privatised and all waste generators (with the exception of a small number of households protected from adverse social impacts through a waiver system) are required to pay for a commercially-provided household waste collection service.

Regulation 5.5 (c) of the Waste Management (Planning) Regulations 1997 provides that non-hazardous Waste Management Plans prepared by local authorities shall have regard to the polluter pays principle in setting out the general requirements under Section 22(7)(f) of the Waste Management Act for the collection, recovery and disposal of waste and the aftercare of facilities used for the disposal of waste. Accordingly, these Waste Management Plans make provision for the application of the “polluter pays” principle.
Section 53A of the Waste Management Act provides that the operator of a landfill facility shall impose charges in respect of the disposal of waste at the facility that shall not be less than the costs incurred in the acquisition, development, operation (including overheads), closure, restoration, remediation and aftercare (for a minimum period of 30 years) of the facility.

In Italy, the polluter-pays principle has been fully applied. The general principle is effectively applied through the provisions of Articles 188(1), 238 and, with regard to the management of packaging waste, Articles 221(1) and 219(2). In particular, Article 188(1) states that:

‘The original waste producer or other waste holders are directly responsible for the treatment of the waste, or for transferring the waste to an intermediary, dealer, establishment or undertaking which carries out waste treatment operations, or to a public or private waste collector, in accordance with Articles 177 and 179’.

Article 221 provides that producers and users are responsible for the correct environmental management of packaging waste, while Article 219 states that a system of ‘shared responsibility’ should be in place to make economic operators accountable according to the polluter-pays principle.

For certain specific waste streams the producer of the product that will become waste is responsible. This is the case for example with tyres, WEEE, batteries and packaging.

In Latvia, the original producer or holder of municipal waste must cover all costs related to the management of municipal waste produced by him/her, including hazardous municipal waste. The original producer or holder of hazardous waste or production waste must cover the costs of hazardous or production waste management. The fee for municipal waste management (except for municipal waste recovery) within a certain administrative territory is determined by a respective municipality’s decision. Such a fee comprises: the fee for municipal waste collection, transportation, transfer, storage, maintaining of the separate collection, sorting and transfer infrastructure based on a contract signed between the municipality and the appropriately selected waste manager; the rate for municipal waste landfilling, which has been approved by the public utilities regulatory authority; and NRT on waste disposal.

Waste composting costs are included in either: the rate for the disposal of municipal waste if bio-waste is composted in a landfill for municipal waste; or the fee for municipal waste management if bio-waste is composted at sites which are specially set up for this purpose. The rate for the landfilling of municipal waste is defined by the Public Utilities Commission in accordance with the procedure prescribed by the Law on the Public Utilities Regulatory Authority.

In Lithuania, according to the principle “polluter pays” under Article 32 of the Law on Waste Management (Official Gazette, 1998, No 61-1726; 2002, No 72-3016; 2011, No 52-2501; 2012, No 6-190), the costs of waste management shall be borne by the original waste producer or by the current or previous waste producers and/or the producer or importer of products the use of which results in waste. It is established by law that all
persons are municipal waste holders and must conclude an agreement for the provision of services or pay the fee established by the municipality. Producers and importers are obliged to sign trilateral agreements on the financing of packaging waste management under the municipal waste management schemes of municipalities. Accordingly, these costs are not included in the costs of municipal waste management which are covered by residents. All other operators are obliged to have the generated waste handled by the manager of relevant waste under the agreement for their recovery and/or disposal, paying for waste management, or manage the waste on their own in accordance with the procedure established by law. Therefore, each waste holder pays for the management of municipal waste, whereas the management of waste products that fall under the principle of producer responsibility (packaging, taxable products, EEE, vehicles and oils) is financed by the producers and importers thereof.

In Luxembourg, the polluter-pays principle is set by Article 17 of the Law of 21 March 2012. The costs of waste management are to be borne by the original waste producer or by the current or previous waste holders. Municipal taxes on waste management must cover all costs incurred by the respective common waste management legislation. The municipal taxes paid by households and, where applicable, institutions must take into account the quantities of waste actually produced. To this end, municipal taxes must include at least a variable component calculated based on the weight and/or volume of residual household waste actually produced and a variable component calculated based on weight and/or volume of bulky waste produced. In 2011, 23 towns—representing 37.5% of the population—apply such a system in accordance with the polluter-pays principle.

In Malta, the polluter pays principle is mainly implemented through the producer responsibility regulations, whereby producers of packaging, electrical and electronic equipment, batteries and vehicles are to set up and finance the necessary collection systems for waste generated from their products.

In Poland, an entity which could pollute the environment bears the costs of preventing this pollution, while an entity which pollutes the environment bears the costs of removing the effects of this pollution (Article 7(1) and (2) of the Environmental Law Act). Waste management costs are borne by the original waste producer or by the current or previous waste holder. In cases specified in separate provisions on packaging, waste equipment and batteries and accumulators, waste management costs are borne by the producer or an entity placing a product on the domestic market, which is specified in these provisions and generates waste. The ‘polluter pays’ principle is also implemented through a system of environmental charges, which includes gate fees. In the case of waste incineration, suspension of waste incineration does not affect the obligation to remove the effects of waste incineration at the cost of the waste incinerator or co-incinerator operator.

Causes and effects of detected threats to the environment and human life and health are removed at the cost of the landfill operator. The landfill operator also bears the costs of obtaining an expert opinion concerning the closure of the landfill or a designated section thereof and a new landfill operation instruction.
If waste is dumped on water reservoir banks (in particular in water intake protection areas and in aquifer outflow areas), in national parks and nature reserves, in forest areas or spa areas or in recreational areas, then an entity using the environment is required to pay increased fees of 1.0 of a unit fee rate for depositing waste at a landfill per tonne of waste and per day of landfilling. An entity using the environment is required to pay an increased fee of hundred times the unit fee rate for depositing waste at a landfill for dumping waste into inland surface waters or ground waters, inland marine waters or territorial sea waters.

In Portugal, at national level, the Statutory Scheme for Environmental Responsibility is laid down by Decree Law No 147/2008 of 29 July 2008, which transposes Directive 2004/35/EC of the European Parliament and of the Council of 21 April 2004, as currently worded. That scheme is based on the polluter-pays principle, establishing a specific set of obligations in the context of environmental responsibility, applicable to the prevention and remedying of environmental damage caused to the following resources: i) water, ii) protected species and natural habitats, and iii) soil, focusing on a wide range of operators and occupational activities. Those activities cover waste management operations, including collection, transport, recovery and disposal, including the supervision of such operations and the maintenance of disposal sites post-closure, which are subject to licensing or registration under Decree Law No178/2006 of 5 September 2006, as amended by Decree Law No 73/2011 of 17 June 2011, which transposed Directive 2008/98/EC, of the European Parliament and of the Council of 19 November 2008 on waste.

That decree law also created a financial instrument, in the form of a waste management fee (TGR), which is intended to influence the behaviour of economic operators and end consumers, so as to reduce the generation of waste and make its management more efficient, by making producers and consumers take responsibility for the environmental costs associated with waste, thereby encouraging the attainment of national objectives in relation to waste management. The TGR must be paid by the bodies managing systems for the management of specific waste streams, whether individual or collective, CIRVER [Centros Integrados de Recuperação, Valorização e Eliminação de Resíduos (Integrated Centres for the Reclamation, Recovery and Disposal of Waste)], waste incineration or co-incineration facilities and landfills, which pay different amounts depending on the destination of the waste and, in the case of landfilling, also depending on the type of waste which is sent to landfill, which in turn is passed on to the producer of the waste.

At the level of the management of specific streams, the approach adopted in Portugal in applying the polluter-pays principle is that laid down in Article 14(2) of Directive 2008/98/EC, and the producer of the product from which the waste came is responsible for the costs associated with its management.

In Romania, according to the ‘polluter pays’ principle, the costs of the waste management operations are paid by the producer of the waste, or, as appropriate, by the current or previous owner of the waste. In case of abandoned waste and in case the producer/owner of the waste is unknown, the costs related to cleaning and restoring the
environment, as well as transportation, capitalisation, recovery/recycling and disposal costs are paid for by the local public authority. After the identification of the producer/owner of the waste, said producer/owner is compelled to bear the costs incurred by the local public authority, and the costs pertaining to the actions taken for identification.

In order to stimulate the selective collection of municipal waste, local public authorities are required to set differentiated fees/tariffs by the type of waste, for the collection and disposal of such waste. The members of local communities, natural and legal persons, in their capacity of direct or indirect users of the sanitation service, have to pay their dues, in compliance with the provisions of the sanitation services agreement and ensure selective collection by categories of recyclable waste, arising from their household or from their gainful activities, and the storage of such waste in containers provided by the operator of the sanitation service, only in the specially set up places.

In Slovakia, pursuant to sect. 18(4)(5) of the Waste Act, unless otherwise stipulated therein, costs of the actions leading to waste disposal and costs of waste disposal shall be borne by the holder of waste for whom waste disposal including waste collection and treatment has been carried out; if such holder of waste is not known, the said costs shall be borne by the last known holder of waste or the producer from whose facility the waste originates. If the holder of waste is known but not living in Slovakia, waste disposal shall be ensured by district environment authority on which territory the waste is located, at the expense of the holder of waste.

Municipalities shall be responsible for managing municipal and small construction waste. Pursuant to sect. 39(6) of the Waste Act, activities involving the management of municipal waste and small construction waste shall be paid from the local fees collected by the municipality pursuant to special regulations, with the exception of the cases mentioned in sect. 18(7) or (9), and with the exception of costs for the system of special collection of WEEE from private households. Yields from collecting local fees shall be exclusively used to cover the costs connected with municipal and small construction waste management, especially its collection, shipment, recovery, and disposal. Municipality shall determine the amount of local fees for municipal and small construction waste. Local fee for municipal and small construction waste shall be paid by:

1) a natural person registered or domiciled or temporarily residing in the municipality, or who is authorised to use or uses an apartment, non-residential space, civil engineering structure or its part, or an object that is not a building, or garden, vineyard, orchard, permanent grass on purposes other than running a business, land in the built-in municipal area with the exception of forest or a land that is registered in the register of immovable property as water surface;

2) a legal person who is entitled to use or uses an immovable property located inside the municipal area for purposes other than running a business; or

3) an owner of a business who is entitled to use or uses an immovable property located inside the municipal area for purposes of running a business.
In **Slovenia**, the polluter-pays principle is based in Constitutional law (Article 67(1) of the Constitution of the Republic of Slovenia), under which the law sets out the manner in which property is acquired and enjoyed so as to ensure, among other things, environmental function. In Slovenian legislation, the application of this principle is explicitly included among the basic principles of the Environment Protection Act. Article 10 of this act states that those that cause environmental burden shall cover all the costs of the prescribed measures for preventing and minimising pollution and environmental risk, for using the environment and for eliminating the consequences of environmental burden, including the costs of implementing preventive and remediation measures in the event of environmental damage. The Article states that environmental taxes may also be prescribed for pollution or for the presence of environmentally harmful substances in raw materials, semi-products or products, while those that cause environmental burden may be ordered to provide a financial guarantee to ensure that they meet their obligations or to repay the costs of environmental burden resulting from the implementation of their activities or following their cessation.

In Article 3 of the act, those that cause environmental burden are defined as legal entities and natural persons which, directly or indirectly, exclusively or simultaneously pollute the environment, use natural resources or cause environmental risk, or cause an environmental disaster or environmental damage. The Environment Protection Act goes on to give effect to this principle, i.e. with regard to the adoption of measures, the prescribing of environmental taxes, and responsibility for an environmental disaster or environmental damage.

The polluter-pays principle is also given effect in this legal basis by way of implementing regulations which determine environmental protection measures and the associated obligations incumbent upon a person responsible for environmental burden.

In **Spain** Article 11 of Law 22/2011 of 28 July, on the costs of waste management, lays down the obligation that the costs of waste management will be borne by the original waste producer, the current holder or the previous holder.

In **Sweden** according to chapter 15, section 5a, the Environmental Code. It is the responsibility of the holder of the waste to ensure that it is handled in a healthy and environmentally sound manner. For certain waste this responsibility is transferred to other actors, mainly producers and municipalities. According to chapter 15, section 8, the Environmental Code the municipalities are responsible for collection and treatment of household waste, except for the product categories covered by producer responsibility. Municipalities may charge fees for its waste management according to chapter 27, section 4-6, the Environmental Code. This means that a large part of household waste management is financed by households. Household waste covered by a producer responsibility though is normally free of charge for the households to leave at a collection point or to a producer. According to chapter 27, section 7, rules can be issued requiring producers with a legislated producer responsibility to pay charges for the collection, transport and removal of waste arranged by the municipality. The charges may also cover the cost of providing information about waste disposal.
In **Sweden** there is a legislated producer responsibility for ten product categories: packaging, paper, plastic bottles and metal cans, cars, tyres, electrical and electronic products, batteries, filament bulbs and luminaries, pharmaceuticals, radioactive products and other sources of radiation. More about producer responsibility, see above question 4 (1). The producers may cover their costs through including them in the price of their products, which means households pay also for part of the producers’ costs.

According to the Ordinance of producers' responsibilities for packaging all companies that produce, import or sell packaged goods are subject to a number of obligations. To make it easier for all companies affected by this law, Sweden’s business and industrial sector has joined forces to create a common system for the collection and recycling of packaging. A service organization, FTI, has been established to provide all companies access to the nationwide recycling system, which is designed to simplify and efficiently meet producer obligations. The recycling system is not profit-motivated. All companies affiliated with the system pay packaging fees in relation to the amount of packaging material their operations generate. Concerning the producer responsibility for used cars (ELVs) the system is self-financed, since there is a positive value in used cars through which all costs for collection, depollution, recycling and treatment are covered. In case of landfills, the operator shall, in accordance with chapter 15 section 35, the Environmental Code, charge for all costs related to the landfill. This is also in line with the responsibility of the generator of the waste to bear the costs, the polluter-pays principle. In Chapter 10 of the Environmental Code there are provisions concerning the polluters’ responsibility for investigation and after-treatment of polluted areas.

In the **United Kingdom** the Environmental Protection Act 1990 requires local authorities to arrange for the collection and disposal of waste in their area. Local authorities cannot charge for most types of waste collected from households as this is already covered by Council Tax/District Rates. But under the Controlled Waste (England and Wales) Regulations 2012 (CWR), they can charge households for certain types of waste, such as bulky waste and garden waste. Under the Act, local authorities arrange for the collection of commercial waste if requested, and may make a reasonable charge. The CWR states that waste collected from certain premises, e.g. charities, hotels, should be classed as commercial waste. Northern Ireland intends to introduce similar legislation which is scheduled to come into operation at the start of October 2013. Local authorities (and others) pay Landfill Tax on all waste taken to a landfill site. This encourages local authorities to move waste further up the hierarchy, e.g. through encouraging residents to recycle more, and through investing in infrastructure.

The Environmental Protection Act also sets out duties for Waste Collection and Disposal Authorities. A Waste Collection Authority must collect household waste in its area (unless the waste is so isolated or inaccessible that the cost of collecting it would be unreasonably high, or adequate disposal arrangements have been, or could reasonably be expected to be, made). In addition, a Waste Collection Authority must collect commercial waste if asked to. No charge may be made for the collection of household waste, except in cases prescribed in Regulations. A person who has requested collection of waste other than household waste (i.e. commercial or industrial waste) is liable to pay
a reasonable charge of the collection and disposal of the waste, and it is the duty of the authority to recover the charge, unless for commercial waste the Authority considers it inappropriate to do so (section 45).

3.8.2 Distribution of Costs

Question (9) (ii): Please explain whether the Member State has opted for the costs of waste management to be borne wholly or partly by the producer of the product from which the waste came and whether distributors of such products share the costs and according to which cost distribution scheme.

Article 14 (3) also gives Member States the option of deciding that producers may either wholly or partly bear these costs, with product distributors also sharing the costs. Article 15 goes on to provide further stipulations on how responsibility for waste management should be allocated. Question (9) (ii) asks about this sharing of costs and responsibility allocation in each Member State.

It should be noted that the relevant article states that Member States may choose a certain option rather than stipulating that this is a requirement. All Member States (25) submitting replies to the Implementation Questionnaire 2010–2012 were able to describe in their replies the division of costs and responsibilities which they have implemented. The detailed replies are provided below.

An example of good practice comes from Germany, which has reported that it has established what is known as a ‘dual system’ for packaging in which manufactures are obliged to take responsibility of the packaging they place on the market, financing the collection of packaging waste from those products they have put on the market in parallel to the collection provided by municipalities. Only manufactures which have paid for the licence to be included under the system, thus fulfilling their obligations, have their packaging waste collected.

Member States replies are summarised below:

In Austria, manufacturers in principle have to carry the costs of collection and recovery of products placed on the market through licensing contributions to collection and recovery systems. These costs more or less depend on the market situation and the price of the respective products.

In Bulgaria, the responsibility for managing ordinary waste is borne by the persons who place on the market the products from which the waste comes. Where the persons placing packaged goods, tyres and oils on the market cannot be identified, the responsibility is borne by the distributors, including the persons selling to end-users.

In Croatia, Article 6(2) of the Sustainable Waste Management Act stipulates that ‘the costs of waste management shall be borne by the producer of the product from which the waste came or by the waste producer’. Article 42(8)(4) requires the product producer to participate in the special waste management system. Article 65(1) requires the producer of a product generating a special category of waste to pay a charge for the operation of the special waste management system.
In **Cyprus**, the cost of waste management is borne wholly by the producer of the product, in the cases where there is such an agreement between the user and the producer of the product and in the cases where through legislation the producer’s responsibility principle is adopted. The distributors are responsible only for the take-back of the waste within their territories. The producers of the product are responsible to pay to the collective management system a fee accordingly to their quantities of product place on the market.

In the **Czech Republic**, in the case of other waste producers, the waste producer pays the costs connected with waste management because the service of the use and disposal of waste is based on a commercial principle in the **Czech Republic** and the operators of the installations charge fees to the waste producers for accepting the waste. The only exemption is waste flows where the obligation to bear the costs is transferred to the manufacturer of the products that later become waste.

The obligation of the producer to bear the costs for managing the waste from its products applies to the following flows: waste from packaging, electric and electronic equipment, batteries and accumulators, tyres, oils and vehicle wrecks.

In the **Czech Republic** there is in addition a charge for landfilling which is intended to put this method of waste management at a disadvantage and make it the least suitable method. The obligation to pay this fee is directly imposed on waste producers in Section 45 of the Waste Act. Which states that: “A waste producer shall be obliged to pay a fee for depositing waste in landfills.”

**Denmark** responded that costs are generally nor borne by the producer, and referred to its reply on the issue of extended producer responsibility (as detailed here in Section 3.3).

In **Estonia**, the polluter pays principle is applied to the collection of packaging, packaging waste and products of concern. Packaging undertakings that place packaged goods on the market are required to collect and recover the packaging of these packaged goods and the resulting packaging waste in such a way that the recovery targets are met. If a packaging undertaking that places packaged goods on the market concludes a contract with a recovery organisation (covering both packaging with a deposit and packaging without a deposit), the obligation related to recovery targets is thereby transferred to that organisation. If, however, a packaging undertaking has not concluded a contract with a recovery organisation, it is itself required to collect and recover the packaging waste of its goods.

A product of concern is a product the waste resulting from which causes or may cause health or environmental hazards, environmental nuisances or excessive pollution of the environment. A producer is required to ensure the collection of waste resulting from products of concern placed on the market by the producer and the recovery, re-use or disposal of the waste. The expenses related to these activities are paid by the producer. The producer is also required to collect and divert to further handling the waste resulting from any product of concern placed on the market before producer responsibility was applied (the so-called historical waste).
The producer is responsible for a product from its time of production and/or placing on the market until it is transformed into waste and until the waste ceases to be waste. Therefore, the producer is not discharged from responsibility once it has collected the waste resulting from products it has placed on the market and transferred the waste to a waste handler. The producer must know what subsequently happens to the waste: it is required to know what the waste handler to which it transfers the waste will do with the waste. The producer is required to know the chain of waste management from the beginning to the end.

In Finland, the stipulations on the distribution of waste management costs are given in Chapter 6 “Producer responsibility” of the Waste Act 646/2011. According to Section 46 of the Waste Act, the producer shall organise waste management and cover the associated costs for following products that it has brought to the market and which are delivered to a reception point for the following discarded products: tyres; End-of-Life vehicles; batteries and accumulators; newspapers, magazines etc.; and packaging (if the turnover of the producer of packaging is more than EUR 1,000,000). Section 49 requires that the producer must organise at its own expense reception points for these products. The reception point network shall be easily accessible throughout the whole country.

According to Section 56, at the point of sale, the product distributor shall organise the reception of the following discarded products from the possessor free of charge:

- portable batteries and accumulators (without the requirement to purchase a new product as a precondition for acceptance);
- electrical and electronic equipment originating in a household, and comparable devices, which are replaced by acquiring a new corresponding device; and
- tyres of motor vehicles and other vehicles or equipment, if they, by type and quantity, correspond to new tyres purchased.

The distributor is responsible for the costs arising from the reception of the aforementioned discarded products. The producer is obliged to bear the cost arising from their waste management. There are some exceptions to the cost liability of the producer for certain products if the products are used on sites other than private households (Section 53), for example, the producer shall be responsible for the costs incurred in the waste management of electrical and electronic equipment placed on the market before 13 August 2005 and in other than private household use, provided that the equipment is replaced with a similar product or a product with a similar function.

According to Sector 3 and Chapter 5 Act of Waste 1981:3 of the Åland Islands the producers are responsible for: packaging (if the turnover of the producer of packaging is more than EUR 1,000,000); End-of-Life vehicles; electrical and electronic equipment; and batteries and accumulators. The regulations for producers and distributors costs of waste management are the same as in Finland.

In Germany, there are a number of measures by which costs are distributed to manufactures. The first is through the Packaging Ordinance, which established the ‘dual system’ for packaging collection in which industry collects household packaging in parallel to the collection provided by municipalities. Manufactures are obliged to take responsibility of the packaging they place on the market, and the dual system only
collects packaging from those manufactures which have paid the licence fee to be included under the system. Another means of distributing costs to producers is the requirement to collect WEEE free of charge, except where the WEEE arises from private households.

In Greece’s alternative waste management and within the framework of extended producer responsibility, the initial producer of the product pays a financial contribution to the respective PRO scheme in order to cover the management of the waste. Regarding industrial waste management, the cost is borne by the initial producer of the waste. Moreover, citizens pay reciprocal fees to municipalities for the management of municipal waste through bills for electricity consumption.

In Hungary, the costs of waste management are imposed through the product fee scheme partly or wholly on the producer of the product generating the waste. Under the previous scheme, waste management tasks were carried out by the obligates themselves or by a coordination organisation on their behalf and at their expense. Under the present scheme, obligates may satisfy their waste management obligations themselves within the framework of fulfilment by individual waste management or collective fulfilment through the mediation of the state-owned National Waste Management Agency Non-profit Ltd.

Product distributors are involved in the scheme provided that they are importers, that is, if they are the first to place the product on the Hungarian market, or, provided that the producer chooses fulfilment by individual waste management, and the waste is actually collected at the site of sale, jointly with the trade entity distributing the product.

In Ireland, the PRI initiatives aim to ensure that industry takes responsibility for the management of waste arising from their sector. With WEEE for example there is almost a full producer responsibility (apart from costs incurred by Civic Amenity Sites), whereas with packaging a shared model of responsibility is in place. In June 2012 the Minister for the Environment, Community and Local Government announced a wide ranging review of the existing producer responsibility initiative model which is currently in operation in Ireland. The overall purpose of the review is to assess the nature and level of the challenges which are currently facing the existing Producer Responsibility Agreements as well as the forthcoming challenges that are expected to arise in the management of various waste streams. The findings and recommendations from the review will form the basis for the development of robust producer responsibility initiatives that will enable Ireland to operate successfully in meeting domestic and EU environmental obligations in the medium to long term.

Italy did not provide a specific reply to this question beyond the general reply detailed in Section 3.2.1.

In Latvia, waste disposal and the sale or utilisation of certain goods for the purposes of economic activity are subject to a natural resources tax (NRT). Pursuant to the NRT Law, the purpose of the NRT is to promote the economically efficient use of natural resources, mitigate environmental pollution, reduce the manufacturing and sale of environmental pollutants, promote the implementation of new environmentally friendly technologies,
support sustainable development of the national economy and provide financial support for environmental protection measures.

The NRT is intended primarily as a tool to promote environmental protection rather than as a source of revenue for the state and municipal budget; therefore, economic operators may be granted an exemption from it. The taxpayer does not pay NRT on environmentally harmful goods, packaging, disposable tableware and vehicles, provided that the taxpayer ensures compliance with the recovery standards set for the relevant types of waste by environmental protection laws and fulfils set conditions.

In Lithuania, pursuant to the Law on Waste Management and the Law on Packaging and Packaging Waste Management (Official Gazette, 2001, No 85-2968; 2012, No 6-191), producers and importers of products that fall under the principle of producer responsibility must cover the costs of organisation and implementation of the collection, transportation, preparation for use and recovery of relevant waste as well as information of the public. Management of packaging waste generated in the municipal waste stream is the subject matter of the agreement on cooperation between the organisation of packaging producers and importers and the municipality, which must be signed in accordance with the Law on Packaging and Packaging Waste Management. EEE producers and importers or their organisation must conclude agreements with all municipalities on the collection of waste electrical and electronic equipment for household use at bulky waste collection sites and the partial funding of these sites, the amount of which is the subject matter of this agreement. Distributors of relevant product must accept the relevant waste free of charge and provide all consumers with written information on the possibility of delivering waste to product distribution points.

Distributors may deliver household-generated EEE waste accepted from consumers to bulky waste collection sites constructed by the municipalities (partially financed by producers and importers) free of charge or hand it over to a producer or importer of such equipment or a waste manager authorised to manage such waste. The producer or the importer or the organisation must sign agreements with EEE distributors and selected waste collectors on the collection of EEE waste from EEE distributors, transportation and preparation for use of such collected waste, and agreements with the selected users and/or exporters of EEE waste on the recovery of household generated EEE waste collected from EEE distributors. The manner of payment must also be laid down in these agreements. A similar system is also in place for waste portable batteries and accumulators.

Distributors must deliver tyre waste accepted from consumers to a waste manager authorised to manage such waste or hand it over to tyre producers or importers. Tyre producers and/or importers must organise the collection of tyre waste from tyre distribution points, companies providing vehicle maintenance and repair services and the transfer of such waste to a waste manager authorised to manage such waste.

In Luxembourg, the costs of managing waste arising from those products falling under the principle of extended producer responsibility are to be borne by the producers / importers who have put these products on the market. In 2013, the principle of extended producer responsibility covers:
• Waste Electrical and Electronic Equipment (Grand Ducal Regulation as amended on 18 January 2005 on waste electrical and electronic equipment and the employment of some limitation of their hazardous components);
• End-of-Life vehicles (Grand Ducal Regulation as amended March 17, 2003 on End-of Life vehicles); and
• Waste batteries and accumulators (Law of 19 December 2008 on batteries and accumulators and waste batteries and accumulators).

For waste subject to the principle of extended producer responsibility, municipal taxes should not include the costs already covered by the contribution which may have been requested from the consumer at the initial point of purchase.

In Malta, in the case of producers of packaging, electrical and electronic equipment, batteries and vehicles the costs of waste management is borne wholly or partly by the producer of the product from which the waste came.

In Poland, legislation on the management of waste electrical and electronic equipment, waste batteries and accumulators and packaging waste, requires entities placing products on the domestic market which generate waste to bear a large part of waste management costs.

In Portugal, to date the application of EPR requires the producer of the product to pay a fee (‘ecovalor’ [waste management fee], fee, ‘valor ponto verde’ [packaging fee]) to cover the costs associated with its management at end of life. However, implementation of that rule is non-linear, since in some cases, such as the packaging and packaging waste stream, the fee is applied to a management body according to the packaging materials, and in others, according to the amount of primary packaging placed on the market.

In Romania, along the management flows of electrical and electronic equipment, and that of batteries and portable accumulators, the management cost of the waste resulting from the products placed on the market are borne fully by the product manufacturer. Currently the Romanian authorities are assessing the timeliness of extending this scheme also to packaging and End-of-Life vehicles (ELV), where the costs are shared with the local public authority (in case of packaging waste) or the business operators dealing with ELVs.

In Slovakia, pursuant to sect. 54b of the Waste Act, a producer of electrical and electronic equipment, with the exception of remote producers of electrical and electronic equipment and foreign producers of electrical and electronic equipment, shall be obliged to ensure individually, collectively or through a contractual partner:

1) free take-back collection and separate collection of WEEE from its holder;
2) preferential re-use of the WEEE collected under point 1 as a whole;
3) transfer of WEEE that is not possible for re-use as a whole to an authorised facility for treatment of this type of waste;
4) treatment of WEEE pursuant to the stipulated terms and conditions and recovery of this type of waste collected in compliance to point 1;
5) acceptance of offered WEEE designated for treatment regardless of meeting the minimum limits.

Pursuant to sect. 54c(5) of the Waste Act, distributor of electrical and electronic equipment who within the scope of their business activities directly supplies to the user electrical and electronic equipment originating from a producer of such equipment who is not listed in the Register of producers of electrical and electronic equipment, shall assume stipulated responsibilities pertaining to the producer of electrical and electronic equipment in relation to the said equipment and the waste thereof.

Section 7(1) of the Packaging Act the obliged person shall undertake to ensure collection of waste from packaging including the re-used packaging waste placed on the market or put into circulation and to ensure its recovery and recycling at least to the extent of obligatory limits for recovery and recycling of the packaging waste stipulated by the regulation; this obligation shall not apply to the obliged person who places on the market or puts into circulation less than 200 kg of packaging in a calendar year.

In Slovenia, for some waste streams, the costs of waste management, with the exception of the costs of collecting waste collected by a compulsory public municipal waste collection service, are covered by the producers of the products from which this waste originates. The same obligations also apply to importers and acquirers of these products from Member States. These are (in addition to the waste regulated under Directives 94/62/EC, 2000/53/EC, 2002/96/EC, and 2006/66/EC):

- waste cemetery candles;
- end-of-life tyres;
- waste plant protection products containing dangerous substances; and
- waste medicines.

Article 25 of the Decree on the Management of Packaging and Packaging Waste lays down the obligation to manage waste packaging. The receipt of waste packaging from public service providers, including the costs that a packaging waste management company is obliged to pay public service providers, the receipt of packaging waste directly from distributors or end-users, and the re-use, recovery or disposal of received packaging waste must be paid for by:

- fillers, for packaging in which goods are packaged which they themselves use as end-users of the packaged goods or place on the market;
- acquirers of goods, for packaging in which goods are packaged which they themselves use as end-users or place on the market;
- packaging producers, for packaging not destined for the fillers referred to in the first indent which they place on the market or use themselves (service packaging); and
- acquirers of packaging, for packaging not destined for the fillers referred to in the first indent which they place on the market or use themselves (service packaging).

If the filler or acquirer of goods has not assumed the obligation of managing packaging waste for packaged goods, this obligation must be assumed by the trader supplying the
goods to a distributor. The obligation to manage packaging waste does not apply to packaging exported to third countries or removed to Member States as packaging or as packaged goods.

In Spain the regulations on extended producer responsibility will determine the cases in which the cost of management will be borne wholly or partially by the producer of the product and when the distributors may share this cost.

In line with the provisions of section 11.2, Article 31(2)(c) of Law 22/2011 of 28 July (on extended producer responsibility) the producers of products that become waste when used may be obliged to accept the return of reusable products, the delivery of the waste generated after using the product; to assume the subsequent management of the waste and the financial responsibility for these activities, to offer information on repairing and scrapping to the re-use preparation facilities, as well as publicly accessible information on the extent to which the product is reusable and recyclable.”

In Sweden where there is a legislated producer responsibility, the costs are normally financed entirely by the producers. This is regulated through specific provisions in the different ordinances on producer responsibility. So far, distributors have no economic responsibility for the collection and treatment of waste for which there is a producer responsibility.

In the United Kingdom the UK-wide producer responsibility legislation outlined in Question 4 imparts a responsibility on the businesses across the supply chain including raw material manufacturers, goods manufacturers, packers, sellers, importers etc. to contribute towards the recovery of waste arising, be that through financial contributions or organisation of take-back or collection schemes. In particular, the Producer Responsibility Obligations (Packaging Waste) Regulations 2007 state that:

“a ‘producer’ may only demonstrate compliance with their recovery and recycling obligations through the acquisition of Packaging Recovery Notes or Packaging Export Recovery Notes or both.”

If an establishment has an annual turnover of more than £2 million and handles more than 50 tonnes of packaging a year they are required to meet the producer obligations under the Packaging Regulations. They will also have recycling obligations if they own the packaging on which they perform an activity and supply it to someone else or if they import packaging. Producers need to register with a producer compliance scheme or directly with the Regulator by 7 April each year. This is transposed by The Producer Responsibility Obligations (Packaging Waste) Regulations 2007; Regulation 6 states:

“a producer shall be registered with the appropriate Agency in respect of a relevant year, or any part of that year, during which he is not a member of a registered scheme.”

The Scottish Government is investigating further schemes such as Deposit Return or Reverse Vending systems, as well as consulting over a separate reporting regime for packaging producer responsibility.

Conclusion:
The majority of Member States (26) either reported that the polluter pays principle has generally been implemented, describing both how they have implemented the principle and the division of costs and responsibilities which they have implemented, or else an alternative data source was located which indicated that the principle has been applied (the Netherlands). An example of good practice comes from Germany, which has reported that it has established what is known as a ‘dual system’ for packaging in which manufactures are obliged to take responsibility of the packaging they place on the market, financing the collection of packaging waste from those products they have put on the market in parallel to the collection provided by municipalities. Only manufactures which have paid for the licence to be included under the system, thus fulfilling their obligations, have their packaging waste collected.

All 25 Member States submitting replies to the Implementation Questionnaire 2010–2012 described the division of costs and responsibilities for waste management which they have implemented. Examples of measures in place include licensing contributions to collection and recovery systems in Austria and direct landfilling fees on producers in the Czech Republic.

3.9 Principles of Self-sufficiency and Proximity

3.9.1 Implementation of Principles

Question (10) (i): Which measures have been taken in fulfilment of the obligation in Article 16(1) of Directive 2008/98/EC to establish an integrated and adequate network of disposal installations and of installations for the recovery of mixed municipal waste collected from private households, including where such collection also covers such waste from other producers, and has that network been organised on regional level?

The principles of self-sufficiency and proximity laid out in Article 16 are intended to lead both individual Member States and the EU as a whole towards self-sufficiency in the recovery and disposal of waste. Question (10) (i) concerns the requirement as it applies to individual Member States (i.e. self-sufficiency within their borders).

25 Member States have reported that they have established waste management networks in line with the requirements of the Directive.

Of these it should be noted, however, that there are currently no waste management facilities in the United Kingdom’s territory of Gibraltar, and at present all waste is shipped for treatment in Spain. A recovery facility is due to become operational in Gibraltar in 2016. The detailed replies are provided below. In addition, when considering Bulgaria’s reply to the Implementation Questionnaire 2010-2012 for the Landfill Directive, this indicated that during the reporting period (i.e. 2010–2012) a number of landfill sites were operational which did not meet regulatory standards. These sites are

69 Questionnaire for the report of the Member States on the transposition and implementation of Directive 99/31/EC on the landfill of waste, Reporting Period: 1 January 2010 to 31 December 2012
due to be decommissioned and replaced by compliant sites. Furthermore, despite Bulgaria reporting that it has sufficient internal recovery infrastructure, another data source from the European Environment Agency indicates that the country was still landfilling the vast majority of its municipal waste in 2010 (98%). Croatia’s reply paraphrased the wording of the Directive, reporting that a requirement to follow the principles exists in law, without providing the requested details. Similarly, Hungary reported that the principles had been applied in the establishment of landfill sites, without giving any further details.

Good practice was reported by Sweden, which reported that it is both largely self-sufficient in disposal infrastructure while also providing disposal capacity to other Member States in need, thereby ensuring self-sufficiency of the European Union. In addition, Sweden reported that it is making use of the disposal capabilities of other Member States where necessary for certain types of waste. This balance of general self-sufficiency complemented with open boarders for the movement of waste where necessary has been reported as being the ideal.

Member States replies are summarised below:

In Austria, Article 1 para. 4, Act 2002 requires that the principles of general self-sufficiency in waste management and disposal in one of the nearest appropriate facilities be sought. This also applies to treatment facilities for the recycling of mixed municipal collected from households, even if waste from other producers will be collected.

Establishing and maintaining an integrated and adequate network of recovery and disposal installations for mixed municipal for the entire country involves regular consultation with the regions and following the Federal Waste Management Plan (2006 and 2011).

In Bulgaria, as required by Article 49 of the ZUO, the Minister of Environment and Water draws up a National Waste Management Plan and submits it to the Council of Ministers for adoption. The Plan includes measures for the establishment of an integrated and adequate network of waste disposal facilities and installations, as well as of installations for recovery of household waste through application of best available techniques and at facilities/installations nearest to the source of waste formation, using the most appropriate methods and technologies that ensure a high level of protection for human health and the environment. According to the National Plan, the country is divided into 55 household waste management regions, and the necessary capacity of the installations for pre-treatment, recovery and disposal of the entire quantity of waste produced within the territory of the region is specified for each region. These regional facilities are also used by legal persons carrying out waste-related operations within the territory of the region concerned which do not have facilities of their own.

In **Croatia**, Article 6(1)(3) of the Sustainable Waste Management Act stipulates the necessity of "'The principle of self-sufficiency' – waste shall be managed in a self-sufficient manner and shall enable independent attainment of national level targets, taking into account the geographical circumstances or the need for specialised installations for special categories of waste'.

In **Cyprus**, in the period 2010–2012, two landfill sites, according to the directive 1999/31/EC, were in operation accepting mix municipal waste collected from private households and covering the three out of the five districts of the Island. The one of the two landfills (Larnaca/Ammochostos districts) is part of an MBT unit which is in operation since 2010. At the MBT unit the mixed waste is mechanically separated from recyclable material (paper, plastic, metal and glass) and the remaining material is being stabilized and used as cover material for the landfill. The second landfill (Paphos district) is accepting mixed municipal waste with no separation. For the moment two disposal sites that do not complying with the directive 1999/31/EC requirements are in operation covering the remaining two districts of the Island. At the moment, another landfill site, part of a similar unit is designed and is at the process to be built and operate, by the end of 2015. At this unit the remaining material will be converted into SRF and be used in incineration units.

The collection for mixed municipal waste is a responsibility of the local authority, which can be act alone or in cooperation with other local authorities. Regarding the rest of the waste streams, there is an asbestos disposal site while most of the remaining hazardous waste is exported mainly for incineration.

The **Czech Republic** currently has an adequate network of installations for the safe disposal of waste, including municipal waste. Due to the future closure of landfills and the need to comply with objectives arising from European legislation, it will be necessary to construct new capacities for waste management in the Czech Republic. To ensure compliance with the highest levels of the waste hierarchy, and in connection with the objective stipulated in the Landfill Directive, the Czech Republic is continuously increasing the number and capacity of installations for the recovery of all types of waste with an emphasis on mixed municipal waste. In recent years capacity has been increased at all three municipal waste incinerators. The construction of additional installations is envisaged with support from the OPE and the EU. The objectives of the European legislation in question will be fulfilled under these conditions.

In **Denmark**, the starting point for new waste disposal facilities is that they may only be owned by public authorities in order to secure responsibility for controls concerning the potential pollution risk after cessation of the activity. The approval authority may however grant an undertaking dispensation from the provision for the establishment of a facility which is intended for the disposal of specific types of waste from the undertaking; see Article 50 of the Environmental Protection Act. In 2006, approximately 3.4 million tonnes of waste were transported to Danish incineration plants. A ban on the landfill disposal of waste suitable for incineration was introduced on 1 January 1997. As of 1 January 2007, there were a total of 29 waste incineration plants in **Denmark**. The incineration capacity of these plants varied in 2007 between 12 000 tonnes and 520 000 tonnes.
tonnes per year. In 2013, there are 26 active, dedicated waste incineration plants for the incineration of household waste and mixed commercial waste.

In Estonia, five new landfills have been constructed, and given Estonia’s relatively small area and population, these landfills provide a sufficient landfill capacity. The rapid development of MBT and waste incineration facilities in recent years has created a situation where there is no more waste to be deposited in landfills and landfills have been transformed into waste management centres where waste is prepared for recovery.

The MBT and waste incineration facilities have mostly been developed according to the polluter pays principle, i.e. these projects have received no significant support from the state and have not been developed by local governments. Therefore, the choice of the location and capacity of the facilities has mostly been up to the developers themselves. The Waste Plan sets out ‘Development of the infrastructure of waste handling’ (point 5.2) as a separate measure, one of the sub-objectives of which is the extension of the network of waste management facilities. The general principle is that a facility is to be located in an accessible and central location within 10 to 20 km of each person that generates waste. The objective set was to build at least 70 waste management facilities by 2013. The objective has been met, largely thanks to the help of the Environmental Investment Centre. Due to the large number of small municipalities in Estonia, most of the waste management facilities were built in cooperation with several local governments.

Estonia has not set itself the goal of creating a network of recycling-orientated waste management facilities that covers the entire volume of waste. However, an adequate collection and pre-processing capacity does exist. Therefore, there are no facilities for recycling most of the waste metal and a significant proportion of recovered paper and plastic and some is shipped out of Estonia to other Member States or third countries. The creation of the possibilities for recycling is being increasingly promoted through various investment aids and also by stepping up the obligations to recycle and the effectiveness of supervision.

In Finland, according to Section 19 of the Waste Act the authorities shall aim to ensure that sufficient possibilities exist to meet the need for the recovery or disposal of mixed municipal waste, for which municipalities are responsible, and for the disposal of other waste. When assessing these possibilities, account must be taken of the order of priority of waste management, geographic conditions and the need for specific treatment of certain waste. When arranging waste management, the municipality and other waste management operators must take account of the aforementioned provisions. When granting an environmental permit for operation of a waste management installation, the authority shall take into consideration the general obligations of the Waste Act related to the organisation of waste management, including the principles of proximity and self-sufficiency in disposal of waste and recovery of municipal waste. In order to promote the implementation of the proximity principle, the permit for waste disposal can also give priority to disposal of waste or recovery of municipal waste from a particular area (Environmental Protection Act 86/2000, Section 45).
In 2012, there were 45 biogas plants and 240 composting plants in operation in Finland. They treat also bio-wastes from other sources than municipalities. There were approximately 50 non-hazardous waste landfills or municipal waste landfills operated by a public entity in 2012. One deposit site, for example large waste treatment centre, can have more than one operating landfill. There are six waste incineration plants in operation (situation in April 2013). Besides MSW, they incinerate also wastes from other sources. Over 40 plants are licensed as waste co-incineration plants in Finland. They combust source separated wastes from industry, commerce and municipalities. Additionally, there are two hazardous waste incineration plants in operation. The figures for waste management infrastructure include the Åland Islands. Mixed municipal waste is transported to mainland Finland for disposal or recovery and to Sweden for recovery.

In Germany, individual federal states are responsible for treating waste from private households. The necessary facilities are shown in the respective management plans of the municipalities. The result is a comprehensive, organised network at the regional level. The comprehensive system of suitable locations thus implements the legislative obligations.

In Greece, the principles of self-sufficiency and proximity apply in general to national legislation regarding waste management. National networks for hazardous and hazardous healthcare waste have been established, whereas regarding municipal waste networks are based at a regional level. Municipalities are responsible for municipal waste collection, and the waste management bodies at regional level are responsible for waste storage, treatment and disposal. In year 2012, 78 landfills were in operation, out of which 74 were taking municipal solid waste—landfill is the most common disposal method in Greece—two were taking hazardous waste, and the remaining two were taking non-hazardous industrial wastes. Greece also has four mechanical separation and composting units, 28 facilities for the sorting of packaging waste, and one incinerator for hazardous health care wastes.

Regarding the coverage of sorting operations, 240 municipalities (according to the new administrative divisions of Greece (a share of 75 %) applied systems of separate collection of packaging waste.

In Hungary, when establishing the sites of landfills for the landfilling of municipal mixed waste, the principle of proximity was applied.

In Ireland, a key objective is to ensure a sufficiency of waste management infrastructure within the state to manage waste disposal and mixed municipal waste recovery needs, in accordance with the proximity and self-sufficiency principles. Accordingly, each Region has carried out a detailed assessment of the particulars of waste generation and management within the region in order to identify the waste facilities and services that are required to cater for the waste management needs of the region in the light of all relevant factors. In reality, each region must either provide the required waste management capacity directly or alternatively source the necessary waste management capacity outside of the region.
**Ireland** possesses a modern and balanced network of facilities with the main focus on waste management relating to prevention, recovery and safe disposal in licensed facilities. The allocation of significant resources from the Environment Fund towards the development and operation of improved recycling infrastructure has underpinned the very significant increase in the diversion of waste to recovery facilities such as bring centres, civic amenity sites, transfer stations and materials recovery facilities. The marked increase in the level of waste recovery over the past decade has led to a much-increased capacity situation in Ireland.

The national municipal waste recycling target of 35% (excluding energy recovery) has been reached 8 years ahead of schedule. The national recycling rate was 9% (167,000 tonnes recycled) in 1998, reaching a total of 964,000 tonnes recycled in 2005, and has achieved the EU norm of 40% municipal waste recycling in 2011 (c. 1,056,000 tonnes recycled). A recovery rate of 79% is reported for packaging waste in 2011 (up from 70% in 2009), exceeding the EU target of 60% recovery due in 2011. The diversion of household waste from landfill is also increasing, growing from 5.6% in 2001 and rising to 47% in 2011 (increased from 29.5% in 2009).

In **Italy**, Article 16 of the Directive was transposed by means of Article 182-bis of Legislative Decree No 152/2006. This article states that:

“Waste disposal and the recovery of mixed municipal waste are carried out using an integrated and adequate network of installations, taking into account best available techniques and the overall costs/benefits, in order to:

(a) achieve self-sufficiency in the disposal of non-hazardous municipal waste and waste treated in optimal management areas;

(b) allow the disposal of waste and the recovery of mixed municipal waste at one of the nearest appropriate installations to the production or collection sites, in order to limit movements of the waste itself, taking into account geographical circumstances or the need for specialised installations for certain types of waste;

(c) use the methods and technologies most appropriate to ensure a high level of protection for the environment and public health.”

Therefore, in view of the above, **Italy** claims to be fully compliant with the principle of proximity and self-sufficiency not only at national level, but also at Optimal Management Area level. Furthermore, disposal outside the region of production is prohibited. The movement of waste throughout **Italy** is permitted only for those streams destined for recovery or recycling precisely in order to favour those operations over disposal.

In **Latvia**, to achieve positive development in waste management by establishing a disposal infrastructure meeting all the environmental requirements as soon as practicable and to effectively use available local resources and obtain EU funding, the National Waste Management Plan 2006-2012 introduced the division of the country into the following 10 waste management regions. These regions have been established based on the agreement between municipalities, and have been set up taking into consideration the economic analyses conducted for the purposes of the Municipal Waste Management Strategy for Latvia 1998-2010 and should be treated as merely indicative.
Every waste management region has its individual waste management plan approved by the Cabinet.

As regards waste management, the main focus of the regional waste management plans for the planning period 2007-2013 is the establishment of environmentally safe landfills, the closure of old waste dumps that do not conform to the statutory requirements as well as the development of collection and sorting installations and sites. The implementation of the planned measures is co-financed by the EU and national government and municipalities and, for this reason, feasibility studies have been conducted for all landfills, including the area to be covered, the amount of waste available for disposal and distances required to transport waste. As a result, 10 municipal waste landfills meeting the statutory requirements have been constructed, nearly 550 waste dumps have been closed, some of them being subsequently re-cultivated, and municipal waste collection and sorting installations and sites have been set up.

It should be noted that sufficient financing was not available to develop the waste installation infrastructure during the period covered by the National Waste Management Plan 2006–2012.

In Lithuania, pursuant to the requirements laid down in the Law of the Republic of Lithuania on Waste Management (Official Gazette, 1998, No 61-1726; 2002, No 72-3016) and the National Strategic Waste Management Plan (Official Gazette, 2002, No 40-1499; 2007, No 122-5003), the efficiency of the waste management scheme is directly dependent on application of the principles of self-sufficiency and proximity. In accordance with the principle of proximity, mixed municipal waste is recovered, while the waste unfit for recycling or other forms of recovery must be disposed of in one of the nearest adequately equipped installations for waste recovery or disposal, as appropriate.

Waste in Lithuania is managed regionally: there are 10 regional waste management schemes whose introduction and development is co-financed from the EU’s Cohesion Fund, state budget and by loan money from the enterprises established by municipalities (regional waste management centres). Waste is disposed of in 11 regional non-hazardous waste landfills, which are in line with environmental protection and public health safety requirements.

To ensure the recovery of waste generated in Lithuania in waste recovery installations for the generation of energy and disposal of such waste in waste disposal installations, restrictions on the import (introduction) of waste destined for recovery in these installations may be applied. The Ministry of the Environment must immediately notify the European Commission of such restrictions.

In **Luxembourg**, in accordance with Article 19 of the Law of 21 March 21012, disposal and recovery of mixed municipal waste collected from private households, including where such collection also covers such waste from other producers, is carried out through an integrated and adequate network of facilities taking into account best available techniques. This network must be duly approved by the Minister, and is organised at national level. Thus, the inter-SIDEC unions SIGRE and Sidor decided to collaborate and organise the collection and treatment (removal and heat treatment) of household and similar waste in the network of the three municipal associations.

In **Malta**, Part 1 of Schedule 5 laid down in the Waste Regulations (LN184/11; as amended) provides that the waste management plans and waste prevention programmes shall take the necessary measures to establish an integrated and adequate network of disposal installations and of installations for the recovery of mixed municipal waste collected from private households, including where such collection also covers such waste from other producers, taking into account best available techniques. This process is currently being assessed as part of the review of Malta’s National Waste Management Plan.

In **Poland**, provincial waste management plans specify municipal waste management regions and municipalities covered by these regions. These plans also include a list of regional municipal waste treatment installations in individual municipal waste management regions and installations providing temporary services in those regions. The Act on Waste also provides that waste must in the first place be subjected to treatment at the source and prohibits treatment of mixed municipal waste, municipal waste sorting residues and green waste outside the municipal waste management region where it has been generated. The above-mentioned regions were created to preserve the proximity principle and ensure an appropriate waste stream guaranteeing the profitability of investments implemented in the region.

In order to fulfil the obligation to establish a network of waste disposal installations and installations for the recovery of mixed municipal waste collected from private households, in the absence of a sufficient number of such installations municipalities are required to hold tender procedures to select an entity which will build and operate them. Entities selected by municipalities by way of a tender procedure or public-private partnership, or awarded a concession to build or operate a regional municipal waste treatment installation will be required to collect and subject to treatment municipal waste handed over by entities collecting this waste from property owners. Operators of installations will also be required to conclude a contract for the management of mixed municipal waste or green waste with all entities collecting municipal waste from property owners active in a region designated in a provincial waste management plan. Operators of regional installations are also required by law to accept waste from a given region.

In **Portugal**, the management of municipal waste is a state responsibility, for which concessions may be granted, and there are two types of bodies: municipalities or associations of municipalities (known as Inter-municipal Systems), in which the municipalities are responsible for management of the system, for which concessions may be granted to any undertaking, and multi-municipal bodies, whose systems are
managed by concessionaires having a majority of public capital (Multi-municipal Systems).

In 2012 there were 23 systems covering the entire mainland; 12 were multi-municipal and 11 Inter-municipal. Each of those systems has infrastructure to ensure an appropriate final destination for the municipal waste generated in its area. It is for those bodies to respond to developments in waste policy, supplementing their collection and treatment network as required by the plan in force and by the Government. Those systems and the infrastructure which they manage are monitored, as regards the various aspects of their activities, by the Regional Waste Authorities (Regional Coordination and Development Committees) and by the National Waste Authority (Portuguese Environment Agency) – in addition to inspection and regulation bodies – thereby ensuring consistent implementation of the national waste policy throughout mainland Portugal.

There are also several facilities in Portugal for the management of hazardous waste, notably the two Integrated Centres for the Reclamation, Recovery and Disposal of Hazardous Waste (CIRVER) CIRVER ECODEAL and CIRVER SISAV, and those facilities were licensed under Decree Law No 3/2004 of 3 January 2004. The Portuguese Environment Agency makes objections to waste exports out of Portugal for disposal operations in cases where the waste is amenable to treatment in CIRVER.

Romania has taken legislative measures whereby the obligation has been introduced to cooperate with the competent authorities of other Member States, too, in order to create an adequate integrated network of waste disposal units and recovery installations of the municipal waste collected from the households of the population, including where this collection also covers such waste from other producers, taking into account the best available techniques that do not imply excessive costs.

In Slovakia, the Recycling Fund was established in 2001 under the provisions of Act No 223/2001 on waste. The objective of the Fund was to support the creation of recovery and mainly recycling capacities, while at the same time the Fund also financially supports separate collection of municipal waste in municipalities. Installations destined for recovery and disposal of mixed municipal waste were also built in response to market demands. At the same time, it was possible to use funds from the Operational Programme Environment - Support of activities in the area of separate collection and Support of activities for waste recovery.

The Waste Management Programme of the Slovak Republic for the years 2011 to 2015 includes a provision to support the construction of integrated centres for the material and energy recovery of municipal waste, as well as the provisions that aim at more effectiveness of separate collection of municipal waste.

In Slovenia, the Decree on the Management of Waste (OGRS, 34/08) ceased to be valid in 2011. Article 8 of this Decree laid down that where the disposal of a specific type of waste was regulated under an operational environmental protection programme relating to waste management, due regard had to be paid in its preparation to the obligation to dispose of it as near as possible to its place of generation and, in the case of landfill, at the nearest landfill suitable for the disposal of the waste. This Decree was
annulled with the adoption of the Decree on Waste, Article 14 of which states that the waste management programme shall, in formulating future strategies for regulating waste management, define measures to establish a network of adequate and integrated disposal installations and of installations for the recovery of mixed municipal waste collected from households and from other producers. The network of installations must enable the disposal of waste and the recovery of mixed municipal waste generated in Slovenia at one of the nearest appropriate installations, by means of appropriate methods and technologies, in order to ensure the highest possible level of protection for the environment and human health. In designing the network, due regard shall be paid to the geographical circumstances and the need for specialised installations for the treatment of certain types of waste and, in establishing the overall network of installations for final recovery, to the possibility of cooperation with other Member States.

In the Operational Programme on Municipal Waste Management (OP RKO), the areas of the collection, preparation for re-use and recycling, treatment, energy recovery and disposal of municipal waste are addressed in relation to 12 regions across the entire country. In order to ensure Slovenia’s self-sufficiency in the treatment and disposal of mixed municipal waste, the OP RKO defines a network of landfills for the disposal of waste and of facilities for the treatment of mixed municipal waste, taking into account the geographically conditioned social circumstances and the need for landfills and treatment capacities. The infrastructural municipal waste management network as defined provides Slovenia with self-sufficiency in the recovery and disposal of municipal waste.

In Spain legislative measures on the principle of self-sufficiency and proximity have been adopted, set out in Article 9 of Law 22/2011 of 28 July:

“Article 9. Self-sufficiency and proximity.

The Ministry of the Environment and Rural and Marine Affairs, in collaboration with the Autonomous Communities, and with other Member States if necessary, shall take the appropriate measures, without prejudice to the application of the waste hierarchy in the management thereof, to establish an integrated network of waste disposal installations for the recovery of mixed domestic waste, including where such collection also covers similar waste from other producers, taking the best available techniques into account.

The network shall enable waste to be disposed of or waste referred to in paragraph 1 to be recovered in one of the nearest appropriate installations, by means of the most appropriate methods and technologies, in order to ensure a high level of protection for the environment and public health”

Through the autonomous communities and local authorities, Spain has established an integrated network of disposal and mixed domestic waste recovery installations within its territory.

Sweden fulfills the obligation in article 16(1) substantially by having a network of installations for disposal of and recovery of waste (within Sweden), through which
basically all waste generated in **Sweden** can be managed. The environmental quality of the waste management is ensured by the permitting process and through inspections. Some specific waste can, where appropriate, be sent to another member state, mainly for recovery but in some cases for disposal. **Sweden** also receives waste from other member states, for disposal and/or recovery. Through these measures **Sweden** attains self-sufficiency in waste management as well as contributes to establishing a network that makes the union self-sufficient. There is a clear division of the responsibility for waste management, laid down in chapter 15 of the Environmental Code. A clear division of responsibility for waste management makes long-term planning and investment easier. The ordinance on waste imposes physical, economic and legal responsibility for various kinds of waste on waste holders, municipalities and producers.

According to chapter 15 section 8 of the Environmental Code the municipalities are responsible for collection and treatment of household waste, except for the product categories covered by producer responsibility. All municipalities shall adopt a municipal waste management regulation which shall contain the rules on waste disposal that are applicable in the municipality and a waste disposal plan (chapter 15 section 11, the Environmental Code). In their plan the municipality shall describe the waste treatment facilities in the municipality (NFS 2006:6, section 3-4) and also the objectives and measures for the collection and treatment of household waste (NFS 2006:6, section 7).

According to the Waste Ordinance the plans shall be handed in to the County Administrative Boards (CAB). Then the CABs shall make a compilation of the plans, and compilation shall be handed in to the Swedish EPA. The compilation shall contain an analysis of the situation in the county regarding capacity for preparation for re-use, recycling, recovery or disposal. If the CAB see a risk of under- or over-capacity (section 81) the CAB shall consult with the stakeholders in the county.

In the United Kingdom in England and Wales, the waste planning system requires local authorities to plan for an adequate network of facilities for managing waste at all steps in the hierarchy, as set out in the Waste (England and Wales) Regulations 2011. Defra is part funding new facilities to ensure capacity in England continues to meet present and future demand. In Wales, the Collection, Infrastructure and Markets Sector Plan has identified that the current network of disposal and recovery installations is adequate for present needs, and further identified the actions necessary to meet future needs. Technical Advice Note 21: Waste (2001) clarifies how the planning system will help facilitate the future infrastructure identified as necessary under the Collection, Infrastructure and Markets Sector Plan. The Welsh Government is assisting local authorities in procuring energy from waste contracts to further establish this network for the mixed municipal waste stream.

In Northern Ireland, following approval of regional Waste Management Plans in 2006, DoENI established a Waste Infrastructure Programme Board to oversee delivery of three infrastructure projects identified as necessary to provide the integrated capacity needed to meet Northern Ireland’s obligations. Each project combines mechanical biological treatment with energy from waste. After conducting more up to date analysis of the infrastructure capacity needed to meet EU obligations when considering the recent
economic downturn, one of the original three projects has been discontinued, but the Department continues to fund the other two. Scotland has transposed the Article through the Waste Management Licensing (Scotland) Regulations 2011, alongside adaptations to the planning legislation, and made it an objective under the Zero Waste Scotland Plan which helps local authorities and industry identify and develop appropriate infrastructure. Gibraltar is in the final stages of a tender process for the design, build, finance and operating contract for a Waste Treatment Facility (WTF). The new WTF will be comprised of:

- Waste Reception facility;
- Materials Recovery Facility; and
- Waste Treatment plant (The tender specifically states that only advanced thermal treatments will be considered).

All municipal Solid Waste (MSW) is currently exported into Neighbouring Member State Spain under Transfrontier Shipment regulation compliant movements. It is expected that commissioning of Gibraltar’s WTF will be by no later than 2016.

3.9.2 Recovery in Appropriate Installations

Question (10) (ii): How does the Member State ensure that waste is disposed of or recovered in one of the nearest appropriate installations?

Article 16 (3) which is the relevant article for this question requires that Member States’ waste management networks should enable waste to be disposed of or recovered in one of the nearest appropriate installations by appropriate methods, and at no detriment to environmental or public health. Question 10 (ii) asks Member States to explain how they ensure that this is achieved.

20 Member States reported that they put in place measures to ensure that waste is treated at one of the nearest and most appropriate installations. The detailed replies are provided below.

In addition:

Bulgaria and Croatia provided limited replies which did address all of the points of Article 16 (3). Hungary merely restated the requirement of the article, and Austria referenced its national legislation (§ 69 of the Act 2002 which governs the shipment of waste).

The Czech Republic reported that waste management is commercially operated without any obligation for waste to be treated in the nearest appropriate facility, meaning that market forces and not regulatory forces govern where waste is treated. The Czech Republic also noted that as waste management operates commercially, it is primarily market forces that determine the final destination of waste.

An example of good practice comes from Denmark, which has reported that it has organised its territory into distinct ‘waste regions’ for the purpose of planning disposal infrastructure within each region with an emphasis on collaboration within the region. Another comes from Finland, which has reported that it has drawn up national
legislation additional to Waste Shipping Regulation (Regulation EC No 1013/2006 on shipments of waste) to restrict the export of waste for disposal operations.

**Member States replies are summarised below:**

In **Austria**, Article 69 para. 7a Act 2002 prohibits the treatment of municipal type waste if the principles of self-sufficiency and treatment at a nearby appropriate installation are not complied with. In addition to this, § 69 para. 7b Act 2002, allows for the possibility of prohibiting a shipment of waste for recovery in **Austrian** incinerators if it is established that such shipments would result in national waste being disposed of or treated in a manner not compatible with the Austrian Federal Waste Management Plan.

In **Bulgaria**, the large energy, metallurgy, petrochemical and inorganic chemical industry enterprises dispose of the waste produced as a result of their operation at facilities and installations of their own. The principal producers of hazardous waste have set up their own disposal facilities meeting the regulatory requirements and carry out there the operations related to safe disposal of their own waste. The regional distribution in household waste management conforms to the proximity principle. Subject to proven necessity and economic appropriateness, reloading stations are set up in the municipalities located at a greater distance from the regional facilities in order to optimise transport costs.

In **Croatia**, Article 6(1)(2) of the Sustainable Waste Management Act stipulates the necessity of “The principle of proximity” i.e. that waste shall be treated in the appropriate facility or installation nearest to its source, taking into account cost-effectiveness and environmental soundness.

Article 8(6) reads as follows: “Waste shall be treated in accordance with the principle of self-sufficiency so as to ensure that waste is treated in the nearest acceptable facility, avoiding thereby any unnecessary transport of such waste.”

**Cyprus** responded that regarding the export of waste for disposal purposes, the procedures of the Regulation 1013/2006 are implemented, which is the European legislation on the shipment of waste. No further information was provided.

In the **Czech Republic** waste management is performed on a commercial basis. It is therefore not possible to stipulate an obligation to manage waste in the nearest installation. In view of the size of the **Czech Republic** it is possible to state that the absence of this obligation does not have a significant negative impact on the environment.

In **Denmark**, the capacity plan in the Waste Strategy defines a number of waste regions. A ‘waste region’ means a well-defined geographic area within which a collaboration concerning the utilisation of incineration capacity, etc. would be natural and appropriate. Efforts are made in Danish waste policy to ensure that within each of the waste regions there is sufficient capacity to process the quantities of waste suitable for incineration for the region concerned. This enforces the principle of self-sufficiency for the waste regions and the principle that waste that is suitable for incineration is transported to an incineration plant in the local area insofar as is practicable.
This is supplemented through the municipal authorities, as waste authorities, being made subject to a right and duty ‘to assign’, which also applies to waste that is suitable for incineration. Most municipal authorities have decided to perform this task through owning incineration plants, either themselves or in partnership with other municipal authorities. Owner municipal authorities will assign waste suitable for incineration from households and undertakings within the municipality to their own plant.

In Estonia, most municipalities have organised waste transport is in place, which, under Section 66 of the Waste Act, means the collection and transport of municipal waste from a designated area to a specific waste management facility or facilities by an undertaking chosen by way of a competition organised by the local government. The transport area and waste management facility, among other things, are specified in the tender documents for the public procurement to award a contract for the transport of waste.

However, the right of local governments to choose a waste management facility has been challenged and the dispute has reached the European Court of Justice. In practice, waste management on Estonian territory is therefore treated on the principle of proximity. According to Section 66(3) of the Waste Act, a local government may decide not to organise waste transport in low-density areas of its administrative territory where organised waste transport would be excessively costly due to the small number and disproportionate location of waste producers and the small quantities of waste, and organised waste transport is not necessary from the point of view of health and environmental protection.

In Finland, according to the Section 19 of the Waste Act, the waste holder is responsible for delivering the waste for treatment at one of the nearest facilities suitable for this purpose. In addition to the Waste Shipment Regulation 1013/2006, Finland has also in its national legislation limited the shipment of waste to another country, in order to implement the principles of self-sufficiency and proximity. Section 109 of the Waste Act allows exports of waste for disposal, and shipments of mixed municipal waste for recovery or disposal, in another country only if specific conditions are satisfied, including:

- Finland lacks the required technical or financial resources or the necessary facilities for disposing of the waste in an acceptable manner;
- the waste will be disposed of in a manner that, in terms of environmental protection, is significantly better than that applied in Finland; and
- the waste will be disposed of in a manner that, in terms of environmental protection, would be acceptable in Finland and that, in terms of cost, is significantly cheaper than disposal in Finland.

Section 110 of the Waste Act allows imports of waste for disposal into Finland only if the disposal of waste, or the recovery of mixed municipal waste, generated in Finland, will not be prevented or delayed due to the import. Section 110 also limits the disposal methods to which waste may be destined to. Imports of waste for landfilling, or imports of non-hazardous waste for incineration, are only allowed if the shipment is based on regional waste management cooperation between municipalities in Finland, Åland and
Sweden, or Finland and Norway. Hazardous waste may be imported for incineration -if the facility is specialising in the incineration of hazardous waste. Additionally waste may be imported to biological or physico-chemical treatment.

In Germany, compliance with the rules of proximity is guaranteed at a local level. Provisions include the obligation to use the priority installations within respective states.

In Greece, according to national legislation all kinds of waste shall be treated / disposed in the nearest appropriate facilities, applying the principle of proximity. The responsibility for ensuring that municipal waste is disposed of or recovered according to the principle of proximity belongs to the Regional Authorities and the competent waste management bodies. Additionally, municipal waste must be treated within each managing territory.

In Hungary, one of the basic principles of the Waste Act is the principle of self-sufficiency, and the principle of proximity is also represented. In line with the principle of self-sufficiency, it should be ensured – in cooperation with EU Member States – that an independent network of facilities suitable for waste disposal and recovery be operated in Hungary, as far as the geographical characteristics allow. Of course, this does not mean that Hungary should have the full range of recovery facilities.

In line with the principle of proximity, the above network should allow for the recovery or disposal of waste in one of the nearest suitable waste management facilities using the most appropriate methods and technologies. However, one should also consider the environmental characteristics, environmental and economic efficiency, the best available techniques and the potential special treatment needs of the waste in question.

In Ireland, waste exported for disposal consists primarily of hazardous waste – in this regard, financial assistance has been provided by the Department under a Grants Scheme in the 1990s for the development of hazardous waste facilities that cater for the storage, consolidation of hazardous wastes collected from small producers and the onward transfer of the hazardous waste to approved facilities abroad. Most importantly, such movements of waste are in accordance with the provisions of the relevant Waste Management Plans.

With regard to facilities for mixed municipal waste recovery, it must be recognised that the waste collection market in Ireland is almost entirely privatised. Accordingly, waste flows through the treatment and recovery system according to free market principles, and influenced by the locations of treatment facilities either owned by the collectors or for which contractual relationships exist. However, facilities used for the recovery of waste are duly authorised and are in accordance with the provisions of the relevant Waste Management Plans, as well as being governed by a customised inspection and enforcement regime.

In Italy, recovery or disposal at the nearest appropriate installations is guaranteed, by the provisions of Article 182. In addition, the waste tracking system, introduced for all waste and not just special waste, allows monitoring of compliance with the principles of proximity and self-sufficiency.
In **Latvia**, municipal waste produced in the administrative territories of those municipalities which are located in the relevant waste management region must only be disposed of in the municipal waste landfill of the relevant waste management region or handed over to the relevant transfer stations. The municipality must enter into a contract with the operator of such a landfill on the disposal of municipal waste collected in the municipality’s administrative territory. Waste managers that collect and transport waste must ensure that the collected and transported waste is delivered to recovery or disposal installations whose operator has obtained the relevant category A or B polluting activity permit in accordance with pollution laws, and that the waste is prepared for recovery or disposal.

**Lithuania** did not provide a separate reply to this question beyond the general reply detailed in Section 3.9.1.

In **Luxembourg**, the collaboration of three municipal associations constitutes an integrated network for the disposal and recycling of mixed municipal waste. In accordance with Article 19, paragraph 1a) of the Act of March 21, 2012 this network must be duly approved by the Minister. From 1 January 2015, the network will be organized as follows:

1) The residual mixed municipal waste and bulky waste from municipal association SIGRE will be transported to the incinerator of municipal association SIDOR.

2) The residual mixed municipal waste and bulky waste from municipal association SIDOR will be transported to the incinerator of municipal association SIDOR.

3) The residual mixed municipal waste and bulky waste from municipal association SIDEC will be pre-treated in the mechanical-biological installation SIDEC. The fraction with high calorific value will be incinerated at SIDOR. The stabilised fraction, following biological treatment, will be landfilled at the site of inter-union SIGRE.

4) The landfill of SIDEC will be closed.

Shipments of mixed municipal waste for recovery or disposal operations located outside **Luxembourg** are prohibited except in cases of force majeure duly established by the minister, or when the installation located in another Member State is an integral part of the network duly approved by the minister. Transfers of inert waste to disposal operations located outside **Luxembourg** are prohibited except in cases of force majeure duly established by the Minister.

In **Malta**, mixed municipal waste collected from private households and other sources is processed locally. However, due to Malta’s small size and its limited resources, it is not always economically and technically feasible to invest in facilities to manage the waste locally or to recycle recyclable material into new products. In this context, Maltese waste has to be exported to other countries, both mainland Europe and other continents, thus increasing the expenses to recycle Maltese waste.

Exports of recyclable materials are commercial transactions. This implies that the waste holder/broker will ship the waste to the most economically feasible destination. Thus, the competent authority is not in a position to enforce that when exported, the
recyclable waste is disposed of or recovered in one of the nearest appropriate installations.

In **Poland**, the Act on Waste provides that waste must in the first place be subjected to treatment at the source. Moreover, the Act expressly prohibits treatment of mixed municipal waste, municipal waste sorting residues and residues from mechanical biological treatment of municipal waste intended for landfilling and of green waste outside the municipal waste management region where it has been generated. Waste generated outside a municipal waste management region may not be shipped to this region.

Moreover, municipal sewage sludge may not be used and infectious medical and veterinary waste may not be disposed of outside the province where it has been generated. Municipal waste sludge may be used in a province other than that where it has been generated if the distance from the place of generation to the place of use located in another province is smaller than the distance to the place of use located in the same province. Infectious medical and veterinary waste may be disposed of in the nearest installation in a province other than that where it has been generated if no installation for the disposal of this waste is located in a given province or if existing installations lack the necessary capacity.

**Portugal** did not provide a specific reply to this question aside from the general reply as detailed in Section 3.9.1.

In **Romania**, activities that have an impact on the environment are authorised from the viewpoint of environmental protection, which means that for the generated waste, appropriate management measures are imposed, observing the principle of proximity. In the authorisation process of the recovery installations the technological processes are assessed, in close relation with the types of waste that are being processed and with the origin of the waste.

In **Slovakia**, pursuant to sect. 20 of the Waste Act, the person who sends hazardous waste shall be obliged to ensure shipment of hazardous waste in compliance with this act and should the shipment of hazardous waste require a permit pursuant to Sect. 7, also in compliance with this permit to carry out shipment of hazardous waste via means of transportation that comply with the provisions of generally binding regulations on the shipment of hazardous items; if the person who sends does not carry out shipment himself, he shall be obliged to provide for shipment through a transporter authorised under special provisions. Distances for shipment shall be determined by both, distribution of treatment installations, as well as the amount of the costs of shipment.

In **Slovenia**, Under Article 3 of the Decree Implementing Regulation (EC) No 1013/2006 on shipments of waste (OGRS, 71/07) due regard must be paid, in relation to shipments of waste from **Slovenia** intended for disposal, to the fact that waste disposal in **Slovenia** has priority over waste disposal abroad, if the capacities for disposal of the specific type of waste concerned under the operational programme on waste management are available in **Slovenia**. If the disposal of waste abroad is permitted under Regulation (EC) No 1013/2006 and does not contravene the preceding paragraph, disposal of the waste
in another Member State shall have priority over disposal in a country that is not a member of the Community.

The Decree Implementing Regulation (EC) No 1013/2006 on shipments of waste also states that the same shall apply to mixed municipal waste classified under the list of waste as waste with classification number 20 03 01 collected from households, including waste collected from other producers.

In **Spain** the disposal or recovery of waste in one of the nearest appropriate installations is ensured by applying Article 25 of Law 22/2011 of 28 July, which provides that:

“**Operators that are going to ship waste destined for disposal operations must submit advance notice to the competent Autonomous Community authorities in the origin and destination. Furthermore, operators that are going to ship mixed domestic waste and hazardous waste for recovery as well as waste for which it is determined by law, must submit advance notice to the same authorities.**

When notice is submitted prior to shipping waste destined for disposal, the competent bodies of the origin and destination Autonomous Communities may voice their opposition for the reasons cited in Article 11(b), (g), (h), (i) of the abovementioned Community Regulation, within a period of 10 days from the date of the acknowledgement of receipt of such notice.

When notice is submitted prior to shipping waste destined for recovery, the competent bodies of the origin and destination Autonomous Communities may voice their opposition for the reasons cited in Article 12(a), (b) and (k) of the abovementioned Community Regulation, within a period of 10 days from the date of the acknowledgement of receipt of such notice.

They may likewise oppose the entry of waste destined for incinerators classified as recovery when any of the following circumstances occur:

*The shipments result in the waste produced in the destination Autonomous Community having to be disposed of.*

*The shipments result in the waste of the destination Autonomous Community having to be treated in a way that is not compatible with its waste management plans.*”

In **Sweden** according to the Environmental Code any person who pursues an activity or takes a measure shall conserve raw materials and energy (chapter 2 section 5) and all holders of waste shall ensure that the waste is managed in a manner that satisfies the requirements for acceptable waste management in terms of health and the environment (chapter 15 section 5a). The different regulations on producers’ responsibility also contain provisions demanding acceptable waste management. Thereof also follows that transports are supposed to be limited to what is adequate and necessary, as long as it is not deemed unreasonable according to chapter 2 section 7.

In **Sweden** there are no explicit provisions demanding a waste holder to transport the waste to the nearest appropriate installation, considering the principle of proximity. Art
16 of the directive, on the other hand, does not demand the member states to require this from the waste holders, but says the network established by the member states shall make it possible to have the waste disposed of or recovered in one of the nearest appropriate installations. Also, the principle of proximity competes with the requirements concerning services in the internal market and with the rules on public procurement. Concerning shipments of waste destined for disposal, within or outside the union, it is possible to raise objections on the ground that the shipment would not be in accordance with measures taken to implement the principle of proximity (Regulation (EC) 1013/2006 on shipments of waste).

In the United Kingdom in Northern Ireland, the regional Waste Management Plans are predicated on an obligation to adhere to the principles of proximity and self-sufficiency, and assessed by DoENI on the degree to which they achieve that. The importance of these principles is reflected in the weighting and scoring applied to them in the site selection criteria recorded in the Outline Business Case for each Waste Management Group’s waste infrastructure project. Towards Zero Waste (Wales) specifies that the proximity principle must be applied when deciding on the siting of waste facilities in Wales. A revised draft of Technical Advice Note 21: Waste (2001) seeks to ensure that future development of infrastructure is integrated and adequate to enable all waste to be handled in one of the nearest appropriate installations. External factors such as the price of fuel also help contribute to minimising haulage distances wherever possible. The proximity principal is also reported in the waste planning system for England and Wales.

In Scotland, the proximity principle must be applied when planning consent for waste facilities is being considered. Scottish planning legislation has been modified to ensure this is done. In Gibraltar the Competent Authority imposes strict licencing requirements under Part IIB (Transfrontier Shipment of Waste) of the Public Health Act.

3.9.3 Collaboration between Member States

Question (10) (iii): Please give details about the extent and the form of any collaboration which may have taken place with other Member States in fulfilling the obligation in Article 16(1) of Directive 2008/98/EC.

Article 16 states that Member States need not possess the full range of waste management infrastructure, but may work in collaboration with other Member States. A common example is the trans-border movement of hazardous waste types where the technology needed for proper treatment may not exist within a given nation. Again, the overall objectives of Article 16 are that self-sufficiency be promoted on both a national and Community level, and Question (10) (iii) asks what collaborations between Member States have occurred.

Seven Member States reported that they have entered into collaborations with other Member States: Finland, Germany, Greece, Ireland, Lithuania, Romania and the United Kingdom.

16 Member States reported categorically that they have not entered into collaborations. The detailed replies are provided below.
In addition Austria did not respond to the question, but noted in its reply that the establishment of a network for waste disposal and recycling has been taken into account. Croatia responded that waste management plans may be formed in collaborations with the competent authorities of other Member States, but gave no details of actual existing collaborations.

Examples of good practice include Ireland which reported that it is making use of high temperature incineration for hazardous waste in the United Kingdom which would otherwise not be available within its borders, thus achieving greater environmental safety in disposal. Also, due to the lack of treatment infrastructure in Romania, it has reported that it has established a large scale partnership with Hungary, which has successful led to greater recovery of waste originating in Romania.

From comparison with the Waste Framework Directive Implementation Report 2010–2012 it can be seen that during the reporting period Malta has ceased collaborative activity previously taking place, whereas Greece has entered into a collaboration where it previously had not done so. In the 2007–2009 period as currently, Finland, Germany, Ireland, Lithuania, Romania and the United Kingdom had collaborations in place.

Member States replies are summarised below:

Austria stated that the requirement for the establishment of a network of waste disposal and recycling plants is already taken into account in accordance with Article 16. No further information was provided.

Bulgaria directly implements the requirements of Regulation (EC) No 1013/2006 on shipments of waste and observes the restrictions on export of waste, including mixed municipal waste, destined for recovery or disposal. More specifically, the prohibition of exports from the EU of waste destined for disposal in any country which is not an EFTA country meets the requirements of Article 16(1) for the establishment of an integrated and appropriate network of disposal installations at EU level. With this exception, the Republic of Bulgaria has not concluded bilateral or multilateral agreements or other forms of cooperation with other Member States for fulfilment of the obligation in Article 16(1) of Directive 2008/98/EC.

With a view to limiting incoming shipments of waste destined for incineration or co-incineration, so that such shipments would not result in national waste having to be disposed of, Article 98(2) of the ZUO prohibits shipments of waste to the Republic of Bulgaria where destined for incineration or co-incineration with energy recovery for a specified installation if the total quantity of such waste imported for one calendar year

exceeds half of the annual capacity of the installation as reported in the permit or the integrated permit.

In Croatia, Article 19 of the Sustainable Waste Management Act stipulates that the Ministry may prepare and implement the Waste Management Plan in cooperation with the competent authorities of the European Union Member States and the European Commission, as required in accordance with Articles 17 and 18 of the Act.

Cyprus, reported that no official collaboration with other Member State is in place. However, waste exported for disposal (e.g. incineration) is controlled through the procedures of the 1013/2006 Regulation on shipments of waste.

The Czech Republic responded that in view of the sufficient network and capacity of installations according to Article 16(1) such cooperation is not essential.

Denmark has not entered into any collaborations with other Member States concerning the fulfilment of the obligation in Article 16(1), but a de facto regional sharing of work has been established.

Estonia has not directly co-operated with any other Member State in fulfilling the obligations, but no limits have been placed on incoming and outgoing shipments of waste either.

Finland has regional co-operation with Sweden on the management of mixed municipal wastes. The areas that had co-operation schemes in place 2010-2012 are Lapland, the Åland Islands, and Turku area in Southwest Finland. The total amount of municipal waste exported to Swedish waste incineration plants for energy recovery was 7400 tonnes in 2010, 18 000 tonnes in 2011 and 8,500 tonnes in 2012. As part of a co-operation scheme in Lapland, non-combustible fraction of municipal waste has been imported from Sweden for landfilling in Tornio, Finland. The total amount imported was about 1,250 tonnes annually in 2010-2011, and 860 tonnes in 2012.

Finland is almost self-sufficient with regard to final disposal of hazardous wastes. In 2010–2011 wastes were imported or exported for final disposal in cases of small amounts of hazardous wastes which need special treatment methods not available in Finland, or due to cost reasons. The Finnish Waste Act (646/2011), Section 109 allows exports of waste for final disposal in cases where the waste is treated in a manner that would be acceptable in Finland from the environmental protection perspective and which is essentially less expensive than the treatment available in Finland. In 2010-2012, hazardous wastes were exported to Sweden, France and Germany.

The amount of hazardous wastes imported into Finland for final disposal was 3500 tonnes in 2010, 4300 tonnes in 2011 and 3100 tonnes in 2012. These wastes have been imported from other EU or ETA countries as well as non-OECD countries, and mainly been destined for high-temperature incineration. Main exporting countries were Norway and Ireland.

In Germany, individual federal states have co-operated with other Member States to which they are geographically adjacent when updating their regional waste plans. For example, Nordhein-Westfalen has co-operated with the Netherlands and Belgium.
Greece collaborates with other Member States regarding transboundary shipments of waste destined for recovery or disposal. These procedures are private initiatives, but they are carried out after the consent of the involved competent authorities of the Member States and according to the provisions of Regulation (EC) No. 1013/2006 and the relevant national legislation. The Hellenic Ministry for the Environment, Energy and Climate Change consents to those shipments only when they are in line with the national and regional plans and the proximity principle.

In Hungary, no such collaborations exist.

In Ireland, with the agreement of the Irish authorities, the UK Plan for Shipments of Waste makes provision for shipments of waste between Northern Ireland and Ireland in either direction, for disposal operations specified in this Plan and where the waste is generated and disposed of within Northern Ireland or the Republic of Ireland.

In addition, the “UK Plan for the Shipments of Waste” recognises that there are some scenarios where it may not be possible or practicable for hazardous waste to be safely disposed of in other countries and where the UK can provide assistance. One of these situations is when another EU Member State produces hazardous waste in such a small quantity overall per year that the provision of specialist disposal installations would be uneconomic.

The UK recognises that Ireland does not currently have specialist High Temperature Incineration (HTI) facilities and relies on other EU Member States to treat its hazardous wastes that need this disposal technology. Accordingly, the UK Government has granted an exception to the UK Plan to accept hazardous waste from Ireland for specialist HTI disposal.

Italy did not provide a reply to this question.

In Lithuania, pursuant to the principle of self-sufficiency and taking into account the special installations needed for certain kinds of waste, where waste cannot be disposed of and mixed municipal waste cannot be recovered in appropriate installations in Lithuania, consideration may be given to the disposal of waste and recovery of mixed municipal waste in the installations of other Member States of the European Union.

Taking into account that the capacity of waste recovery installations is being developed and the waste management capacity is sufficient in Lithuania, it is not necessary to consider the possibility of recovery of mixed municipal waste and disposal of waste in other Member States. Where the waste from production and other economic activities cannot be recycled in Lithuania, operators must pursue the recycling of this waste in other Member States and cooperate with Lithuanian waste management associations and those of other Member States. Relevant waste management issues are tackled by means of cooperation with other Member States during various meetings:

1) The Baltic Council of Ministers—an institution for intergovernmental cooperation among the Baltic States—was established on 13 June 1994, which enables organisation of trilateral cooperation (between Estonia, Latvia and Lithuania) on
relevant issues including waste with the ministers of these countries acting as representatives. The Baltic Council of Ministers is organised annually; and

2) Trilateral cooperation at expert level in discussing relevant issues including waste takes place at the annual meetings of the Committee of Senior Officials.

Cooperation between the Member States also takes place in the area of transboundary transportation of waste, issuance of permits for the transportation of waste and organisation of meetings to discuss the transboundary transportation of waste. Cooperation with experts in waste management from other Member States in addressing the issues of waste treatment also takes place in writing, by e-mail and by phone.

In Latvia, in fulfilling the obligation under Article 16(1) of Directive 2008/98/EC, has not collaborated with other Member States during the reporting period. The National Waste Management Plan 2013–2020 provides for analysis and assessment of the respective waste streams (quantity, source, etc.), possibilities for supporting the establishment or development of waste processing capacity based on an evaluation of the existing processing capacities of the nearest neighbouring countries and the waste streams generated by them.

In Luxembourg, in accordance with Article 16 point 1) of the Act of 21 March 2012, the waste network can be established in cooperation with other Member States where this is necessary or appropriate. Exports of waste can be made in cases of force majeure duly recognised by the Minister or when the facility located in another Member State is an integral part of the network duly approved by the Minister.

In Malta, no such collaborations took place during the reporting period.

Poland did not collaborate with other Member States in fulfilling the obligation laid down in Article 16(1) of Directive 2008/98/EC in the period 2010–2012, as no such collaboration was necessary.

Portugal reported that this question was ‘not applicable’.

Romania, following the proximity principle and based on a network of existing installations in the EU, RECOLAMP Romania (collective organisation for lighting equipment) and ElectroCoord Hungary have implemented the Hungary–Romania Cross-Border Co-operation Programme 2007–2013, funded by the European Regional Development Fund. Due to the very good results the partners will continue to support the investments, and the plant in Hungary will recycle the waste from all eight counties involved in the project. At the same time, Green WEEE (recycling installation for electric and electronic equipment), located near Buzau, receives significant amounts of waste from south of the Danube.

In Slovakia, special collaboration does not take place other than following the requirements for transboundary shipment of waste.

Slovenia, has not engaged in any form of collaboration with other Member States in fulfilling the obligation referred to in Article 16(1) of Directive 2008/98/EC.
In **Spain** no collaboration with other Member States has been established to fulfil the provisions of Article 16 of Directive 2008/98/EC.

In **Sweden** all shipments of waste between member states are handled according to the process determined in regulation (EC) 1013/2006. No specific collaborations. To give some examples though of waste that is sent to other member states; mercury is sent to Germany both for recovery and for repository, waste oil is sent to Germany for regeneration, fly ash is to some extent sent to Norway for recovery (back-filling purpose).

In the **United Kingdom** there is ongoing collaboration between Northern Ireland and Ireland on waste matters generally under the auspices of the North South Ministerial Council Environmental Sector meetings, in particular in respect of cross-border movements of waste.

Gibraltar has an ongoing partnership with Spain relating to the disposal and recovery of waste. At present, all municipal solid waste is sent to Spain for recovery or disposal, but Gibraltar is in the process of commissioning a local facility to handle MSW.

### 3.9.4 Self-Sufficiency in Waste Disposal

**Question (10) (iv): What degree of self-sufficiency in waste disposal has been attained in the Member State?**

*Please illustrate this answer with actual or estimated figures for the waste disposed of within the Member State out of the total waste requiring disposal produced in the Member State.*

As previously explained, the article aims at bringing Member States to a greater degree of self-sufficiency in their waste disposal operations. **Question (10) (iv)** asks member States to quantify the level of self-sufficiency achieved in this regard.

20 Member States provided adequate quantitative data in their replies illustrating their self-sufficiency in waste disposal. The detailed replies are provided below.

In addition, **Lithuania** provided some data on waste disposal within its borders, but did not provide data on overall waste arisings. **Slovenia's** data has not been signposted as either real tonnages or estimates. **Spain** did not provide a complete reply, and **Germany** did not provide any quantitative data.

Finally **Italy** did not comment on its degree of self-sufficiency.

The best performing countries in this regard are the **Czech Republic** and **Slovakia**, both of which reported 100% self-sufficiency in waste disposal. **Malta**, **Portugal** and **Sweden** are all close behind, having reported rates of above 99%. 

Preparation of Implementation Reports on Waste Legislation, including the Waste Shipment Regulation
The Waste Framework Directive Implementation report 2007–2009 concluded that most Member States were largely self-sufficient in non-hazardous waste disposal, but that for hazardous waste the rate of self-sufficiency was lower. As was the case in 2007–2009, many countries made use of the ability to access specialist hazardous waste treatment across national borders.

Member States replies are summarised below:

In Austria, from total waste arisings of approximately 34,882,609 tonnes in 2010, only 72,694 tonnes were exported for disposal. The rate of self-sufficiency in waste disposal is therefore over 99 % in relation to the total waste volume.

In Bulgaria, the producers of large quantities of hazardous waste, mainly in non-ferrous metallurgy and the petrochemical industry, have set up their own facilities for safe disposal of hazardous waste in accordance with the integrated pollution prevention and control permits issued to them. Most of the functioning hazardous waste disposal facilities have been set up by the enterprises concerned and handle their own waste only. The exceptions to this rule are the hazardous waste cells at the regional landfills in Ruse and Sevlievo, as well as the hazardous waste cell with the waste disposal facility of KCM-S.A., City of Plovdiv, which accepts specified types of waste from other producers amounting to up to 10 100 t annually.

A full degree of self-sufficiency has not been attained regarding the safe disposal of part of the hazardous waste, such as waste pesticides, equipment containing polychlorinated biphenyls, etc., which are exported for disposal to EU Member States. To ensure the safe disposal of hazardous waste in Bulgaria until the establishment of the national system, hazardous waste will be exported, mainly to the European Community, in accordance with the requirements of the legislation in force: Regulation (EC) No 1013/2006/EC on shipments of waste and the Basel Convention on the control of transboundary movements of hazardous wastes and their disposal. Only hazardous and construction waste was exported for disposal in 2010 and 2011.

The large producers of non-hazardous industrial waste, mainly the thermoelectric power plants and the chemical industry, have set up waste disposal facilities of their own which meet the regulatory requirements. The smaller producers of non-hazardous industrial waste use the system of regional landfills for waste disposal. The capacity of the existing waste landfills is sufficient to ensure their operation until the time limits set for their decommissioning. The integrated network of household waste disposal installations in the Republic of Bulgaria is being established.

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In **Croatia**, the total amount of municipal waste produced in the Republic of Croatia in 2011, according to the data reported, was 1,645,295 tonnes, while the amount of production waste reported was 1,536,607 tonnes. The total amount of waste sent for final disposal operations (D operations, other than D13, D14 and D15) within the Republic of Croatia was 2,126,358 tonnes, of which 2,006,196 tonnes was disposed of in landfills. A total of 11,555 tonnes of waste was exported for disposal operations (hazardous waste, mostly sent for D10 operations).

In **Cyprus**, most of the waste produced that is not treated either in or out the country is disposed in landfills. For the years 2010 – 2012, 300 tons of asbestos material was exported for landfilling in 2010 and 410 tons of hazardous waste (asbestos material and halons) was exported in 2012.

The **Czech Republic** is completely self-sufficient in terms of waste disposal. The available capacities in the Czech Republic permit the disposal of 100% of the waste that it is necessary to dispose of.

Waste quantities in **Denmark** have been rising since 1994, when the Danish Environmental Protection Agency began collecting data, through until 2008. During this period, insufficient incineration capacity was available at times, which meant that some of the waste intended for incineration was temporarily stored with a view to subsequent incineration. However, the financial crisis which began in late 2008 resulted in a marked decrease in waste quantities. This has meant that in 2012 the incineration plants have an estimated overcapacity of the order of 300,000 – 500,000 tonnes out of a total capacity of approximately 3.6 million tonnes.

According to the plants’ ‘green accounts’, a total of approximately 3.3 million tonnes of waste was incinerated at the dedicated waste incineration plants. The municipal authorities have a duty to ensure that sufficient incineration capacity is available for waste that is suitable for incineration. Municipal waste planning and forecasts for future waste quantities form the basis for municipal authority decisions concerning the creation of incineration capacity. In 2010, approximately 0.6 million tonnes of waste were registered for landfill disposal in **Denmark**. However, the records do not cover the landfill disposal of contaminated soil at special sites (approximately 1.2 million tonnes) or the landfill disposal of contaminated seafloor materials (approximately 0.75 million m³).

**Estonia** is technically capable of disposing of almost all waste subject to disposal, except a very small quantity of specific hazardous waste such as certain PCS equipment and metallic mercury. In 2012, 36.9% of the total of 22.2 million tonnes of waste generated was disposed of.

In **Finland**, the degree of self-sufficiency in final disposal of waste is 100 % when calculating the relation of the all wastes exported for final disposal to the total amount of waste requiring disposal. The degree of self-sufficiency in disposal of hazardous wastes is about 99.9 %. In both cases the degree of self-sufficiency is calculated as the percentage value of the waste exported for disposal compared with the amount disposed of in **Finland**, excluded the amount of waste imported for disposal. (Please
note that the total amounts of waste requiring disposal in **Finland** contain also wastes from extractive industries not belonging to the scope of the Waste Framework Directive.) 100 % of waste from the Åland Islands was disposed of in the Åland Islands or on the mainland in the year 2010.

**Germany** is made self-sufficient in waste disposal as a whole through the networks established by individual federal states. There are now 68 municipal waste incinerators with a combined annual capacity of 19 million tonnes within the country, and **Germany** is in fact taking in imports of waste for disposal from other countries.

**Greece** operates 74 landfill sites, which provide coverage of 94% of municipal waste which must undergo disposal. The country disposes 40% of its own hazardous waste (not including healthcare waste), and 99% of its own non-hazardous industrial waste.

**Hungary**, aims at being self-sufficient in waste disposal. In 2011, out of the total generated waste of 18,586 tonnes, 8,500 tonnes were disposed of by landfill and 91 tonnes by incineration. The extent of waste exports for the purpose of disposal is negligible, but the extent of waste exports for the purpose of recovery is much more significant in the case of certain wastes. The existing recovery capacities in the territory of **Hungary** can be later extended in certain cases in line with the above.

In **Ireland**, in the most recent report submitted under the Waste Statistics Regulation No 2150/2002 for the year 2010, Ireland has reported that 5,896,633 tonnes of waste underwent a disposal operation within the State, while the amount of notified waste exported for a disposal operation was 57,157 tonnes. Accordingly, less than 1% of the total amount of waste reported as undergoing a disposal operation in 2010 was exported for treatment.

**Italy** did not provide a reply to this question.

In **Latvia**, as at 31 December 2012, Latvia had 11 municipal waste landfills and one landfill intended for hazardous waste, having a total design capacity of 16,210,932 tonnes. During the reporting period, an average of 620,771 tonnes of waste was disposed of per annum.

In **Lithuania**, based on the data of the Environmental Protection Agency, about 3.3 million tons of waste had been landfilled and about 92,545 tons disposed of in a different way in 2010; about 3.3 million tons of waste had been landfilled and about 39 390 tons disposed of in a different way in 2011. Figures for total waste arisings were not provided.

In **Luxembourg**, the degree of self-sufficiency in disposal of mixed municipal waste and inert waste is 100%. As **Luxembourg** has no disposal facilities for certain categories of waste—especially hazardous waste—this waste is exported. This exported waste amounted to 259,531 tonnes in 2011.

**Malta** is highly self-sufficient when it comes to waste disposal, with over 99% of the total waste requiring disposal being disposed locally. Less than 1%, which due to its hazardous nature cannot be disposed locally as there are no hazardous waste landfills, is disposed of outside of the country. In 2012, out of a total amount of 1,500, 777 tonnes
of waste requiring disposal, 1,147,230 tonnes were disposed of in Malta (99.8%) at an estimate.

**Poland** was almost entirely self-sufficient in waste disposal during the reporting period. In 2012, out of 27,094,508 tonnes of waste requiring disposal only 568 tonnes were exported for this purpose.

**Portugal** achieved 98.95% self-sufficiency in disposal in 2010, 99.94% in 2011 and 99.95% in 2012.

**Romania** managed to meet all its own needs related to waste disposal. At the end of 2012 sufficient capacity had been authorised for the disposal of the waste generated, consisting of:

- 33 landfills for non-hazardous municipal and industrial waste, in compliance with the provisions of Directive 1999/31/EC, out of a total of 65 landfills planned as necessary on 16 July 2017.
- 49 landfills for non-hazardous municipal and industrial waste, non-compliant with the provisions of Directive 1999/31/EC, for which Romania has a transitions period for decommissioning in stages by 16 July 2017.
- 6 landfills for hazardous industrial waste, in compliance with the provisions of Directive 1999/31/EC.
- 10 compliant landfills for non-hazardous industrial waste, in compliance with the provisions of Directive 1999/31/EC.
- 15 installations for the incineration of hazardous waste, owned by private operators that incinerate for third parties.

In addition, there are storage installations dedicated to waste from the extractive industry and to waste from the energy industry.

In 2011, about 95% of the collected municipal waste (excluding construction and demolition waste) was disposed of in landfills. In 2011, out of a total of approximately 213 million tonnes of generated industrial waste (including waste from the extractive industries), approximately 206 million tonnes were disposed of (including waste from the extractive industries).

**Slovakia** is 100% self-sufficient in waste disposal as it has sufficient capacities to dispose of the waste generated in its territory. Waste generated in Slovakia that is destined to be disposed of will be disposed of in Slovakia, and legal shipment/export for the purposes of waste disposal has not been allowed. At the same time, pursuant to sect. 23(3) of the Waste Act, transboundary shipment of waste from one Member State to Slovakia as well as import of waste from another state as Member State to Slovakia for the purpose of its disposal is banned, unless international contracts binding on Slovakia state otherwise.

In **Slovenia**, in 2011 out of total waste arisings of 5,960,615 tonnes, 1,115,377 tonnes were disposed of within the country’s borders. 279,557 tonnes of waste were generated for which the only permitted method of management is disposal, and this waste was either disposed of internally or sent for disposal in other Member States.
In **Spain** in 2011, of the total hazardous waste produced (approximately 3 million tonnes), 13,571 tonnes were exported for disposal. Moreover, in this same year 32,167 tonnes of hazardous waste was imported for the disposal thereof.

**Sweden** has attained an almost 100% full self-sufficiency in waste disposal, meaning there is enough capacity to dispose of basically all waste generated in Sweden. Some waste is, when appropriate, sent for disposal in other member states, mainly of economical or/and technical reasons. One example is the mercury that is sent to Germany for repository. In Sweden 2010 the self-sufficiency in waste disposal was roughly 97% (97.2%) excluding the mining sector, and almost 100% (99.8%) including the mining sector. The absolute amounts behind these degree values were 190 thousand tonnes waste exported for disposal, while the total amounts of waste for disposal were near 7 million tonnes excluding the mining sector and near 88 million tonnes including the mining sector.

In the **United Kingdom** a very high level of self-sufficiency in disposal has been attained. The UK Plan for Shipments of Waste prohibits the export of waste from the UK for disposal except in very exceptional circumstances such as emergencies, trial runs or hazardous waste produced in too small a quantity to make a domestic facility viable.

Gibraltar has an on-going collaboration with Spain for the disposal of waste, hazardous and non-hazardous. These are governed by Gibraltar national legislation and Spanish national legislation, both of which stem from EU law.

**Conclusion:**

25 Member States have reported that they have planned their waste management infrastructure with the principles of self-sufficiency and proximity in mind in 2010-2012 and that they have established these principles into national law.

With regard to recovery in near and appropriate installations, 20 Member States reported that they put in place measures to ensure that waste is treated at one of the nearest and most appropriate installations. Bulgaria, Croatia and Hungary, with the addition of Austria, did not provide a reply for 2010-2012. The Czech Republic also noted that as waste management operates commercially, it is primarily market forces that determine the final destination of waste. 23 Member States either gave full details of existing collaborations with other Member States or else stated that no collaborations have taken place. In addition to these 23 Member States, Croatia indicated that its national legislation allows collaborations to take place but did not state whether any have in fact taken place. Austria provided an oblique reply, reporting only that “the establishment of a network for waste disposal and recycling has been taken into account”.

20 Member States provided full quantitative data illustrating their level of self-sufficiency in waste disposal in 2010-2012, with Germany, Lithuania, Slovenia and Spain only providing partial data, and Italy providing none.
The Waste Framework Directive Implementation report 2007–2009\textsuperscript{73} concluded that most Member States were largely self-sufficient in non-hazardous waste disposal, but that for hazardous waste the rate of self-sufficiency was lower. As was the case in 2007-2009, many countries made use of the ability to access specialist hazardous waste treatment across national borders. In fact, Member States have reported that they are benefiting well from the ability to share common waste management infrastructure within the European Community. One major benefit of the collaborative nature of waste management within the EU is the ability to access specialist waste disposal infrastructure that may be uneconomic to establish at home. For example, Hungary is supporting Romania in dealing with WEEE through the Hungary–Romania Cross-Border Co-operation Programme 2007–2013.

3.10 Management of Hazardous Waste

3.10.1 Protection of Environmental and Human Health

Question (11) (i): Please describe the measures the Member States have taken to ensure that the generation, collection, storage, and treatment of hazardous waste is carried out in conditions providing protection for the environment and human health.

Article 17 requires that hazardous waste be managed in accordance with the requirements on the protection of environmental and human health contained in Article 13.\textsuperscript{74} Question (11) (i) asks Member States to describe the steps they have taken to ensure that hazardous waste is managed in line with these associated articles, from its generation to final disposal.

25 Member States have reported that they have taken measures to ensure that hazardous waste is managed in conditions which protect environmental and human health in line with Article 17 of the Directive. A number of these Member States, including Finland, Germany, Greece and Malta, reported that they have placed special emphasis on controlling hazardous waste management through national permitting systems. The detailed replies are provided below.

This includes Croatia which provided a reply paraphrasing the wording of Article 17 in relation to national legislation before going on to list some measures concerning the transfer of hazardous waste, but did not mention the generation, storage and treatment

\begin{itemize}
  \item [74] The management of hazardous waste within the EU was previously legislated for by the Hazardous Waste Directive 91/689/EEC (OJ No L 377/20 of 31.12.91), however, that Directive was repealed on the 12 December 2010, from which time the management of hazardous has been governed by the revised Waste Framework Directive.
\end{itemize}
of hazardous waste. It also includes Hungary and Luxembourg which provided replies that referenced national legislation but did not provide specific examples of measures implemented.

Member States replies are summarised below:

In Austria, Section 15 AWG 2002 specifies that in the collection, transport, storage and treatment of waste and other waste operations, in accordance with the objectives and principles of Article 1 paragraph 1 and 2 AWG 2002 disruptions to public interests (article 1 par. 3 AWG 2002) are to be avoided. These provisions also apply to hazardous waste. For each transfer, as well as for the transport of hazardous waste, sections 18 and 19 AWG 2002 and 2012 set out that when any legal entity (other than private households) passes Hazardous Waste to another legal entity a consignment note must be issued. The consignment note shall be kept during the transport of hazardous waste. The transferee of the hazardous waste issues an (electronic) notification to the competent authority detailing the type, quantity, origin and fate of the hazardous waste within 6 weeks after their acquisition.

The control of transboundary movement is monitored with corresponding accompanying documents. A process of data matching is part of the regular and appropriate controls in accordance with section 75 AWG 2002. In section 75 the AWG 2002 stipulates that waste producers who produce hazardous waste and waste collectors and handlers are to perform checks regularly and appropriately. With regard to waste collectors and handlers of hazardous waste, there is also a 5-year minimum interval for enforcers.

Waste producers, collectors and handlers have records of the type, quantity and nature of waste management. The exact specifications for this paperwork for producers are set out in the AWG 2012, and for waste collectors and handlers in the Waste Balance Regulation. Accordingly, waste collectors and handlers submit a summary of their records electronically once a year in the form of an annual waste balance to the competent authority. Also the control of these records is part of the regular checks in accordance with section 75 AWG 2002. To ensure the compliance with these regulations, sections 79 and 80 AWG 2002 allow appropriate penalties to be applied for violations.

In Bulgaria, under Article 29 of the ZUO, the production, collection and transport of hazardous waste, as well as its storage and treatment, must be carried out in a manner ensuring protection of the environment and human health in accordance with Article 1 of the ZUO, including through measures for waste control and for tracking waste from the moment it is generated to its final treatment. When hazardous waste is shipped within the territory of the Bulgaria, it must be accompanied by an identification document in a standard form specified by the regulation referred to in Article 48(1) of the ZUO on the procedure and standard forms for submitting information on waste-related operations. The document may be in electronic form and must contain the data set out in Annex IB to Regulation (EC) No 1013/2006.

Under Article 8 of the ZUO, industrial, construction and hazardous waste is delivered and accepted solely on the basis of a written contract with persons holding a permit, an
integrated permit or a registration document under Article 35 of the ZUO for the relevant operation and a site for waste with the relevant code in line with the regulation on classification of waste referred to in Article 3 of the ZUO. Waste holders are obliged, among other things: to comply with the requirements for waste collection, transport and treatment; to maintain their waste treatment facilities in constant working order and fit for normal operation; and to take all measures to prevent the mixing of hazardous waste with other hazardous and recoverable waste with non-recoverable waste.

In **Croatia**, Article 49 stipulates special obligations for hazardous waste:

“(1) The generation, the collection and the transportation of hazardous waste, including its storage and treatment, shall be carried out in accordance with Articles 6 and 9 of this Act, applying measures to ensure traceability from the generation to the treatment of waste and the control of hazardous waste streams.

(2) When a holder of hazardous waste hands over the waste for which he does not possess a declaration on waste properties or whose amount exceeds one tonne per person carrying out waste management operations, he shall accompany such waste with a transit note and a report on the testing of the waste properties which must not be older than 12 months counting from the day when the testing of its properties was performed, unless reported otherwise by the regulation governing the management of special categories of waste.

(3) When the amount of hazardous waste of a known composition is less than one tonne, the holder of the hazardous waste shall, in addition to a transfer note, deliver to the authorised person the declaration on waste properties as provided for by the rules referred to in Article 51(8) of this Act.”

The user of the public service collection of mixed municipal waste and mixed biodegradable waste is required by Article 30(5)(2) to submit difficult waste separately from mixed municipal waste and biodegradable waste.

In **Cyprus**, the provisions of the Law ensure that the generation, collection, storage, treatment of hazardous waste is carried out in conditions providing protection for the environment and human health, as they oblige all producers of hazardous waste to: (a) store their waste in a way that protects the environment and the human health, (b) give their waste to a licensed collector, (c) verify that the waste is delivered to a licensed treatment facility and (e) to keep chronological records of the type, quantity, place and way of treatment of the waste produced.

The operation of the licensed collectors and treatment facilities is governed by terms and conditions put in their permit and often they undergone inspections. Waste that is exported is undergone the procedures of the Regulation 1013/2006 on shipments of waste.

In the **Czech Republic**, all the basic obligations apply among other things to the management of hazardous waste – meaning collection according to type and category, sorting, protection from degradation or fouling, handover only to an authorised person, verification of the hazardous properties of the waste, and so on. In addition conditions
are stipulated for waste management through Decree No 383/2001, on the details of waste management, which regulates the conditions for collecting, storing, maintaining records during the transport of hazardous waste around the Czech Republic, and so on. At the same time, the legal regulations indicated above stipulate the obligation to prepare identification documents and the conditions for labelling hazardous waste. Reduction in the production of hazardous waste is achieved in particular through the manufacture of products in such a way that waste production is continuously restricted. Its currently financially demanding disposal is also related to reducing the production of hazardous waste. “To improve the level of hazardous waste management” is a specific objective of the new OPE, which supports in particular technologies for the recycling and use of hazardous waste, installations that use hazardous waste, and installations to convert waste at which the waste loses its hazardous properties. There are also objectives in relation to managing hazardous waste in the WMP of the Czech Republic and the new conceptual documents under preparation (the new WMP and the Waste Prevention Programme). Last but not least, there are adult education efforts under way regarding the hazardous properties of waste on human health and the environment and to motivate the public in terms of the separate collection of the hazardous components of municipal waste.

In Denmark, the Waste Order requires municipal authorities to classify hazardous waste in accordance with Annex 3 to the Waste Directive and the EWC list. Municipal authorities must also establish schemes for hazardous waste produced by households and undertakings within the municipality, but not for sorted commercial waste for material recovery. This means that municipal authorities are required to provide a scheme for hazardous waste with the exception of sorted hazardous waste for material recovery. The Waste Order also requires undertakings that produce hazardous waste to ensure that hazardous waste is appropriately packaged as necessary according to the composition, quantity, weight, volume, etc. of the waste. Alongside the waste provisions, there are also provisions which implement the European Agreement concerning the International Carriage of Dangerous Goods by Road (ADR).

In Estonia, according to Section 28(1) of the Waste Act, a waste holder is required to handle the waste in the possession of the holder according to the established requirements or transfer the waste for handling to a person holding the corresponding right. According to Section 28(11) of the Act, waste holders must have adequate information concerning the types, quantities and origin of the waste in their possession, concerning its properties relevant in terms of waste handling and concerning the hazards resulting from the waste to health, the environment or property.

According to Section 29(1) of the Act, the processes or methods used in waste handling shall not endanger health, property or the environment. In waste handling, all necessary measures shall be implemented in order to avoid or reduce as much as possible the environmental nuisances, as defined in Section 18 of the Act, caused by waste for the purposes of and the harmful impact of the waste on the environment, including landscapes and sites of special interest, and human health. According to Section 11(1) of the Act, ‘waste handling’ means waste management, supervision over waste management and aftercare of waste management facilities and, according to Section 13
of the Act, ‘waste management’ means the collection, transport, recovery and disposal of waste, including actions taken as a dealer or broker.

In **Finland**, an environmental permit is required for all activities that pose a threat of environmental pollution. The Environmental Protection Act also specifies that all treatment facilities that recover or dispose of hazardous waste on professional basis or at installation scale need an environmental permit. This permit obligation concerns also storage of hazardous waste since storage pending any of the waste disposal operations D1 to D14, or recovery operations R 1 to R 12, is considered as a waste treatment operation (excluding temporary storage, pending collection, on the site where the waste is produced) (Government Decree on Waste 179/2012, Annexes 1 and 2).

When issuing the permit the competent authority will evaluate if the operation producing hazardous waste or treating it is using the best available technology and best environmental practices. The permit authority may not issue a permit if the operation results in adverse effects on human health, other significant environmental pollution or risk. Collection of hazardous waste does not either need an environmental permit. However, anyone collecting waste on a professional basis must submit a notification to a waste management register, kept by the environmental protection authority of the municipality within which collection occurs (Waste Act, Section 100). Municipalities are obliged to organise the reception and treatment of hazardous waste generated in dwellings and in agriculture and forestry, unless excessive quantities are involved (Waste Act, Section 32). To enhance this collection, the municipalities generally organise the reception free of charge.

In the Åland Islands hazardous waste are collected and stored at places which must have a permit according to Sector 28b, 28e, 28l Act of Waste 1981:3. The treatment of hazardous waste is carried out at facilities that have a permit from a Finnish authority.

In **Germany**, compliance is ensured through the permitting requirement for establishments producing, storing or treating hazardous waste. In addition, paragraph 47 (2) KrWG transposes Article 34 of Directive 2008/98/EC, placing a duty on the authorities to undertake regular reviews of producers of hazardous waste. Regarding collecting and transporting hazardous waste, section 54 KrWG sets out requirements on licensing and competency for the responsible persons.

In **Greece**, there is national legislation regarding hazardous waste management which also provides specific terms and conditions on collection / transport and recovery / disposal operations. Specific environmental permits are issued either for collection and transport or for recovery / disposal operations, based on the abovementioned legislation. Producers of hazardous waste and establishment and undertakings of hazardous waste management shall follow environmental permits and either treat the waste as it is permitted or deliver it to permitted companies for collection and transport. Regarding hazardous waste streams that are included in the alternative management schemes, the additional requirements set by the PRO schemes shall be followed. Finally, inspections of hazardous waste producers or management facilities are carried out in order to ensure that their management is in accordance with national and European legislation.
In **Hungary**, in line with EU legislation, detailed legal provisions are laid down by Government Decree No 98 of 15 June 2001 on the criteria for pursuing activities related to hazardous wastes, and these make it compulsory to pursue the activities related to the generation, collection, storage and treatment of hazardous wastes in compliance with the protection of the environment and human health.

In **Ireland**, Section 15(1)(b) of the Waste Management Act provides that establishments or undertakings which carry out waste treatment operations, establishments or undertakings which collect or transport waste on a professional basis, brokers and dealers, and establishments or undertakings which produce hazardous waste, shall be subject to appropriate periodic inspections by the local authorities, the Agency and Dublin City Council, as appropriate. Inspections concerning collection and transport operations shall cover the origin, nature, quantity and destination of the waste collected and transported.

Accordingly, any person involved in the collection or transport of hazardous waste on a professional basis, or brokers and dealers of hazardous waste, will be subject to appropriate periodic inspections by Dublin City Council and the Environmental Protection Agency. In addition, there is scope within Regulation 6 of the European Communities (Shipments of Hazardous Waste exclusively within Ireland) Regulations 2011 (S.I. No. 324 of 2011) for the competent authorities to authorise officers from another local authority to participate in the inspection forces and to co-operate in enforcement activities.

Furthermore, the competent authority is empowered to impose on a person undertaking the shipment of hazardous waste such charges as are necessary to defray any costs reasonably incurred by it in performing its administrative, supervisory and enforcement functions or to seize, take possession of, dispose or recover a consignment of hazardous waste where there is a contravention of the Regulations.

In **Italy**, the Government has established that the production, collection, storage and treatment of hazardous waste should take place in conditions that guarantee the protection of the environment and human health, starting with the definition of the aims and general principles of waste management laid down in Articles 177 and 178 of Legislative Decree No 152/2006. The decree then proceeds to expand on these concepts in articles that make provision for the classification of waste and for all phases of proper management of both hazardous and non-hazardous waste.

In **Latvia**, the Waste Management Law states that the original producer or holder of hazardous waste or production waste must:

1. separate hazardous waste or production waste from other types of waste;
2. store hazardous waste or production waste so that it does not endanger the environment, human life and health and personal property;
3. deliver hazardous waste or production waste to specially equipped collection sites for hazardous waste or production waste or enter into a contract with the relevant waste manager on hazardous waste or production waste management; and
4. cover the costs of hazardous waste or production waste management.
The manager of hazardous waste or production waste must construct specially equipped hazardous waste collection sites.

Special laws and regulations prescribe the procedure for managing certain types of waste, which are subject to special management requirements due to their hazardous or other properties, including waste oil, waste containing polychlorinated biphenyls and polychlorinated terphenyls, waste batteries and accumulators, waste from the titanium dioxide industry and asbestos waste.

In Lithuania, to protect the environment and human health, the Law on Waste Management (Official Gazette, 1998, No 61-1726; 2002, No 72-3016; 2011, No 52-2501; 2013, No 52-2501) provides for measures that would ensure that hazardous waste is collected, stored and treated only by natural or legal persons who have the permits or licences to do it and comply with the relevant qualification requirements. Companies that collect, transport, treat and store hazardous waste for longer than six months must be included in the Register of Waste Management Companies (the State Register of Waste Managers as of 1 January 2014), must obtain a licence for the management of hazardous waste and insure themselves against civil liability for the damage that may be done to third parties and/or their property and the environment in carrying out such activities.

The holder of hazardous waste must also identify and declare the hazardous waste in his possession under the procedure established by the Ministry of the Environment. Temporarily stored, collected and transported hazardous waste must be packaged and labelled. A waste recovery or disposal company must wind down its waste recovery or disposal activities in such a way that no negative impact on human health and the environment is caused in the course or as a result of winding down of the activities. During the transportation of hazardous waste in the territory of the Republic of Lithuania, it is obligatory to carry an accompanying document for hazardous waste which is attached as an annex to the cargo consignment note. The requirements for the cargo consignment note are laid down in the Road Transport Code of the Republic of Lithuania (Official Gazette, 1996, No 119-2772; 2005, No 47-1559).

In Luxembourg, Article 17 of the Directive is transposed into national law in Article 23 of the Law of 21 March 2012. Production, collection and transportation of hazardous waste, as well as its storage and treatment, is carried out in conditions which protect the environment and human health, and which comply with the provisions of Article 10 of the Law of 21 March 2012.

In Malta, Schedule 1 laid down in The Waste Management (Activity Registration) Regulations (LN106/07), provides a list of activities that need to be registered with the competent authority. These regulations do not dispense any activity laid down in Schedule 1 from any other permission, if covered by other national legislation. Furthermore, these regulations provide that any activity shall not cause harm to human health and the environment. In this context, all registered activities not requiring a permit under other legislation are to take the necessary measures to ensure that any hazardous waste generated on their site is appropriately stored pending collection. The producer is also bound in accordance with regulation 12 of the Waste Regulations.
(LN184/11; as amended), to ensure that the waste is collected, managed and treated by authorised operators.

Environment Permits issued by the competent authority for those installations falling within the scope of the Industrial Emissions Directive and other applicable legislation detail the necessary provisions for the safe storage and handling of waste at the site of generation. Local facilities engaged in the collection, storage and treatment of hazardous waste have to be permitted by the competent authority (The Malta Environment and Planning Authority - MEPA). In fact, specific conditions on how to manage hazardous waste in accordance with regulation 16 of The Waste Regulations (LN184/11; as amended) are laid down in their permit. The permit also dictates the specific EWC codes of the hazardous waste the facility can handle. The main aim of such conditions is there to safeguard the environment and human health in accordance with Article 13 of the Waste Framework Directive.

In addition to all of this, the generation and collection of hazardous waste are regulated by the consignment permit and consignment note regime laid down in regulation 14 of the Waste Regulations (LN184/11; as amended).

In **Poland**, during the reporting period hazardous waste was transported from the place of generation to that of recovery or disposal in compliance with applicable legislation on hazardous waste transport. The waste holder was required to handle waste in compliance with waste management rules, environmental requirements and waste management plans. The waste producer, on the other hand, was required to obtain a decision approving a hazardous waste management programme (if more than 0.1 tonne of hazardous waste was generated annually) or to submit information on generated waste and the methods of managing such waste (if up to 0.1 tonne of hazardous waste was generated annually or more than 5 Mg of non-hazardous waste was generated annually). The hazardous waste management programme was approved, by way of a decision by the competent authority.

Permits for the disposal of hazardous waste were issued following an inspection of the operation of waste disposal installations and equipment carried out by a provincial environmental protection officer. Persons mixing waste oils with other hazardous waste during collection or storage if the level of pollutants in the waste oils exceeded the permissible level were subject to incarceration or a fine, as were waste incinerator or co-incinerator operators who accepted hazardous waste for incineration without becoming acquainted with the waste description and did not take or did not store samples of this waste.

If a waste holder or an entity transporting waste generated waste without obtaining the required decision approving a hazardous waste management programme or approving a waste management programme or violated its terms or increased the threat to human health or life or the environment, mixed different types of hazardous waste or mixed hazardous waste with non-hazardous waste or permitted such mixing, he or she was subject to a financial penalty.

In **Portugal**, waste treatment activities (including storage operations R13 and D15) are subject to licensing, in accordance with the provisions of Chapter III of the General
Waste Management Scheme (Decree Law No 178/2006 of 5 September 2006, as amended by Decree Law No 73/2011 of 17 June 2011), competence for which lies with the National Waste Authority (APA) or the Regional Waste Authorities and the Regional Coordination and Development Committee of 5 areas having territorial competence (CCDR).

Under that licensing system, the licences impose requirements aiming to protect the environment and human health, which are subject to monitoring by the licensing authorities (CCDRs) and supervisory authorities (SEPNA - Nature and Environmental Protection Service) or police authorities with their own competence in environmental matters or even the IGAMAOT (Inspectorate General for Agriculture, the Sea, the Environment and Town and Country Planning), a non-police authority with its own competence in environmental matters, and municipalities. Finally, it should be noted that additional measures/stricter operating requirements are applied, in particular through the implementation of Best Available Techniques, compliance with emission limit values for the descriptor wastewater discharge and air, as defined in the applicable national legislation.

Waste producers are also required each year to report data on the waste which they have generated, differentiating between that which is stored at the facility and that which is dispatched externally, specifying the NIF (tax identification number) of the recipient (which must be licensed for that purpose) and the respective operation to which it is subject at destination i.e. the Integrated Waste Registration Map of the Integrated System for Electronic Registration of Waste, to make it possible to control/verify that it is duly sent to bodies licensed for that purpose.

In Romania, producers/owners of hazardous waste, as well as business operators with an environmental permit for carrying out activities of collecting, transporting, storing, treating or recovering hazardous waste, are required to collect, to transport and to store separately the different categories of hazardous waste, depending on the physical and chemical properties, compatibilities, and on the types of firefighting substances that can be used for each category of waste in case of fire, also ensure traceability from the place of generation to the final destination.

The environmental permits issued for business operators that carry out waste management activities include specific conditions, so that the activity of such operators is performed under conditions of environmental protection.

In Slovakia, Pursuant to sect. 7(1) of the Waste Act, a permit issued by state administration authority shall be required for hazardous waste management activities. Permits for handling hazardous waste may only be issued for a definite time period of not more than three years. Pursuant to sect. 8 of the Waste Act, an authorisation granted by the Ministry shall apply to:

1) treatment and recycling of waste batteries and accumulators;
2) recovery or disposal of waste oils;
3) treatment of End-of-Life vehicles; and
4) treatment of waste from electrical and electronic equipment.
Section 19(1) of the Waste Act requires that hazardous waste be stored separately by its categories; it should be labelled following a designated labelling approach, and handled in compliance with this act and special provisions. Handling of hazardous waste is addressed by sect. 40 of the Waste Act which implies the following: Dilution and mutual mixing of individual categories of hazardous waste or mixing hazardous waste with waste other than hazardous for the purposes of reducing the concentrations of present harmful substances shall be banned. Mixing of individual categories of hazardous waste or mixing hazardous waste with waste other than hazardous may only be carried out if it is needed for increasing the safety during waste recovery or disposal and if such is compliant with the granted permit. If, contrary to the above-mentioned provision, waste categories have been mixed, the competent district environment authority may in cases where it is technically and economically feasible and necessary for the protection of human health and the environment issue a decision to separate hazardous waste.

During its collection, shipment and storage, hazardous waste must be packaged in adequate packaging and adequately marked in compliance with special regulations. (ADR, RID, COTIF) At the generation of new categories of hazardous waste or waste originating from the treatment of hazardous waste as well as before recovery or disposal of the hazardous waste produced by them, producers of hazardous waste shall be obliged to analyse its properties and composition for the purposes of determining its hazardous properties and closer specification of conditions for its treatment through implementing approaches and strategies determined by legal regulations. Disposal of hazardous waste shall have preference before other waste types. In specified cases, hazardous waste may not be landfilled without its prior treatment that will substantially reduce its hazards, volume, or weight. Provisions of the Waste Act on the management of hazardous waste shall apply also to the management of waste containing one or more harmful agents and meeting at least one criterion for the assessment of hazardous properties pursuant to the List of Waste. Professional qualifications required for carrying out trade activities in the area of hazardous waste management include undergraduate or graduate degree in corresponding technical, natural, pharmaceutical, agricultural, veterinary or medical sciences, along with at least three years of practical experience working in the given field, or completed high school education in corresponding technical, agricultural or medical sciences, along with at least five years of practical experience working in the given field.

In Slovenia, in the temporary storage of waste at an original producer, the preliminary storage of waste at a collector or the storage of waste at a waste treatment facility, under Article 22(2) of the Decree on Waste the requirements referred to in Article 10(1) of the decree must be taken into account in respect of protection of the environment and of human health. Under Article 24 of the Decree on Waste, waste must be packaged during temporary storage, collection, transport and storage in such a way as to not threaten the environment and human health, and be furnished with an indication of the type of waste and its classification number. Where hazardous waste is involved, it must also be furnished with the designation ‘hazardous waste’ and an indication of its hazardous properties, in accordance with the regulations governing chemicals. If waste that is being transported is hazardous waste under the regulations governing the
transport of hazardous goods, it must also be marked in accordance with the regulations governing the transport of hazardous goods. This shall not apply to hazardous and mixed municipal waste from households until it is received by the public municipal waste collection service.

The obligations of waste collectors are laid down in Articles 30 to 35 of the Decree on Waste. A collector may collect waste if it has a certificate of entry in the register of waste collectors maintained by the ministry responsible for the environment, which is part of the register of persons with a certificate to perform environmental protection activities under the Environment Protection Act. A waste treatment provider may treat waste if it has an environmental permit for the recovery or disposal of waste under the Environment Protection Act. An environmental permit shall be issued at the request of a legal entity or sole trader that meets the requisite conditions.

A transporter must ensure that the transport of waste takes place in accordance with the requirements regarding the protection of the environment and human health and that the waste is delivered to the person that receives it according to the information on the record sheet. A copy of the record sheet must accompany any shipment of hazardous waste during transport. A transporter that transports hazardous waste must keep records of all instances of hazardous waste transport.

In **Spain** law 22/2011 of 28 July on waste and contaminated land has, by means of various articles, laid down a legal regime to guarantee that the generation, collection, storage and treatment of hazardous waste is done under the appropriate conditions indicated in the Waste Framework Directive. As regards the obligations of producers of hazardous waste, Article 17 of Law 22/2011 of 28 July sets out the obligations of any producer or other original holder of waste in relation to managing their waste, also indicating specific obligations for producers of hazardous waste in paragraph 6 and 7:

“(…) In addition to the obligations provided in this article, the producer or other holder of hazardous waste shall meet the requirements set out in the legally established procedure on hazardous waste.

Producers of hazardous waste shall be obliged to prepare and send a minimisation study to the Autonomous Community, undertaking to reduce the production of their waste. Small producers of hazardous waste whose production does not exceed the legally established quantity are exempt from this obligation.

Producers of hazardous waste may be obliged to sign a financial guarantee that covers the liabilities to which their activities may give rise in consideration of their characteristics, dangerousness and risk potential. The small producers of hazardous waste defined by law are exempt from this obligation.”

As regards producer obligations on the storage, mixing, packaging and labelling of hazardous waste, Article 18 of Law 22/2011 of 28 July lays down the obligations of the producer or other original holder in relation to the storage, mixing, packaging and labelling of waste.”

In **Sweden** Chapter 2 of the Environmental Code prescribes general rules of consideration, which must be recognized by everyone who pursues an activity or takes a
measure which may affect human health or the environment. According to chapter 15 section 5a of the Environmental Code the holder of waste must ensure that the waste is managed in a healthy and environmentally sound manner, which includes hazardous waste.

Chapter 9 of the Environmental Code prescribes that specific activities may not be undertaken without prior permission. This means that treatment of hazardous waste is regulated in the licensing process for environmentally hazardous activities (question 14, 17 and 19). The same concerns storage of hazardous waste, since you have to have a permit from the authority if you want to store hazardous waste over a certain amount. The Ordinance of Environmental Proceeding provides specific provisions on those activities that require permission. The majority of the waste activities can be found in chapter 29 of the Ordinance of Environmental Proceeding. For instance, storage, pre-treatment and sorting, biological treatment, incineration, landfilling, recovery and disposal of waste require permission.

In chapter 22, sections 25 to 25c of the Environmental Code there is a list of the waste aspects that are supposed to be handled in a permitting process. For example the following aspects, among many others, must be handled in a permitting process for an activity that intends to store, recover or dispose of waste:

1) a list of the categories of waste and the total amount of waste that may be stored, recycled or disposed of;
2) details of the method to store, recover or dispose of waste to be applied; and
3) the necessary conditions in terms of measures to monitor and verify that the obligations of the business are met. Act (2011:734). etc.

In addition to the provisions of the Environmental Code and the Ordinance of Environmental Proceeding, the Ordinance on Waste also prescribes that permission or notification is required for the transportation and collection of waste, including hazardous waste. If you as a business want to transport hazardous waste you have to register your activity to the CAB (County Administration Board) in the county where you conduct the major part of your business. If you transport 100 kg hazardous waste annually or if the waste consists of certain defined substances you have to have a permit from the CAB (County Administration Board) in the county where you conduct the major part of your business (section 36 and 42, Ordinance on Waste). According to section 51 the CABS should keep a register over the businesses with transport permits and the ones that have reported their transports. The permits are issued with terms on education of drivers, on what is transported and how etc.

75 http://rkrattsdb.gov.se/SFSdoc/13/130251.PDF
76 http://rkrattsdb.gov.se/SFSdoc/13/130251.PDF
77 http://www.notisum.se/rnp/sls/lag/19980808.htm
In the United Kingdom Article 17 is transposed by the existing Hazardous Waste (England and Wales) Regulations 2005, the Hazardous Waste (Wales) Regulations 2005 and the Environmental Permitting (England and Wales) Regulations 2010. The traceability requirement is transposed by these Regulations. They require the completion of a consignment note where waste is removed from any premises. The consignment note must include the details specified in Section A Annex I to Council Directive 84/631/EEC (as amended). Waste producers, holders, carriers and consignees all have responsibilities to complete these notes.

Although Northern Ireland does not have any specialised Hazardous Waste disposal sites per se, the management of certain hazardous wastes, for example, hazardous wastes that are generated from households, does take place there. However, other hazardous wastes, such as those produced by industry, are for the most part shipped to Great Britain for disposal. The Hazardous Waste Regulations (Northern Ireland) 2005 (the 2005 Regulations) set out the regime for the control and tracking of the movement of hazardous waste in Northern Ireland in compliance with Articles 17 to 20 of Directive 2008/98/EC.

In Scotland, hazardous waste (or special waste as it is referred to) is managed under section 33 of the EPA 1990 which covers keeping or managing hazardous waste (amended by the Waste (Scotland) Regulations 2011). The Special Waste Regulations 1996 cover the collection and transport of hazardous waste, which the regulations define as any waste defined by Article 1(4) of the Hazardous Waste Directive. Hazardous waste is subject to duty of care and is required to be segregated from other waste.

In Gibraltar, Part VA of the Public Health Act manages the collection, storage, transport and licencing conditions are imposed on all movements to ensure protection for the environment and human health.

3.10.2 Classification and Traceability of Hazardous Waste

Question (11) (ii): Which measures are taken to ensure the traceability of hazardous waste from the generation to final disposal, in particular by record keeping pursuant Article 35 of Directive 2008/98/EC and a proper labelling of hazardous waste? Which measures have been taken to ensure that waste with hazardous properties is correctly classified as hazardous waste?

Article 17 also references Article 35, which provides stipulations for keeping records on hazardous waste, such as that organisations transporting hazardous waste must preserve records for at least 12 months. Article 19 requires that Member States ensure that hazardous waste is packaged and labelled in accordance with international and European Community standards whenever it is collected, transported or stored temporarily, and that when transferred it should be accompanied by an identification document. Question (11) (iii) asks Member States to detail the measures they have taken to ensure that hazardous waste is properly classified, recorded as such, and traced from its generation to final disposal.
23 Member States provided details of measures taken in this regard in their replies. These are detailed below.

Of these, five Member States provided replies lacking any information relating specifically to the labelling of waste. These were: Austria, Bulgaria, Denmark, Poland and Sweden. It is possible that these Member States overlooked the labelling requirement in their reply despite it being explicitly mentioned in the question and being the focus of Article 19.

Part of these 23 was also the Czech Republic which gave a high level reply referencing legislation around the issue, but did not describe any actual measures as requested. Hungary also referenced its national legislation (by Government Decree No 164 of 18 October 2003 on the record keeping and data supply obligations related to waste).

Member States replies are summarised below:

In Austria, there is a registration requirement for collectors and handlers of hazardous waste, who must complete an electronic registry in EDM.gv.at, which forms part of a comprehensive government strategy in the country. There is an identification form system for hazardous waste in accordance with Sections 18 and 19 AWG 2002 in conjunction with the AWG 2012, which sets out the information waste collectors and handlers must record on the nature, quantity and fate of hazardous and non-hazardous waste pursuant to Article 17 in conjunction with the AWG 2002. The data transfers for hazardous waste are contained in a separate part of the electronic register (EDM.gv.at), in the "Waybill data register". If a notifiable cross-border shipment of waste is carried out, the relevant data is also recorded in a separate area of the tab.

The precise guidelines for the paperwork for producers of waste are set out in the AWG 2012, and for waste collectors and handlers in the Waste Balance Regulation. Accordingly, waste collectors and handlers must submit a summary of their records electronically once a year in the form of an annual waste balance to the competent authority. Also the control of these records is part of the regular checks in accordance with section 75 AWG 2002. Waste shall be assigned to the category which best describes it in accordance with Article 1 par. 2 of the Waste Catalogue Ordinance, BGBl II No. 570/2003 AMENDED.

In Bulgaria, under Article 44 of the ZUO, persons whose operations involve the generation, collection, transport and/or treatment of industrial and/or hazardous waste, as well as persons holding a permit, an integrated permit or a registration document under Article 35 of the ZUO and carrying out operations of collection and transport and/or treatment of household and/or construction waste, are obliged to keep record books certified by the authority responsible for issuing the permit or the registration document, and persons holding an integrated permit must have such books certified by the director if the RIEWS covering the area in which the operation is carried out. Waste dealers and brokers are obliged to keep record books certified by the director of the RIEWS covering the area in which their registered office is located, and non-registered persons must have such books certified by the director of the Sofia RIEWS. The record books contain a chronological record of the quantity, nature and origin of the waste and,
where required, the destination, frequency of collection, mode of transport and treatment methods foreseen.

Upon delivery of hazardous waste, all persons along the chain, from the waste producer to the recipient for final recovery or disposal, are required to complete identification cards. As provided for by Article 3(6) of the ZUO, the reclassification of waste as non-hazardous waste may not be achieved by diluting or mixing the waste with the aim of lowering the initial concentrations of hazardous substances to a level below the thresholds for defining waste as hazardous.

In Croatia, a waste producer and/or holder is required by Article 44(3) to supply a transfer note to accompany the waste handed over to a person carrying out waste management operations in accordance with this Act and is responsible for the accuracy of the waste data included in the transfer note. Under Article 44(5), waste handling data shall be kept at least 5 years, or 12 months in the event of the transport of hazardous waste, and all evidence and other relevant information about the actions taken shall be made available at the request of the competent bodies or the previous waste holder. Article 45 requires a person who produces waste while carrying out his business operations and a person carrying out waste management operations to keep a Register of Waste Generation and Waste Streams for each type of waste.

Article 108 stipulates the manner of packing and labelling waste:

“(1) In the course of collection, transportation and storage, waste shall be packed in a manner that is not harmful to the environment or human health, and marked with a label containing the waste name and the waste code in accordance with the Waste Catalogue.

(2) In the course of collection, transportation and storage, hazardous waste shall be packed and labelled in accordance with international standards and the European Union acquis communautaire relating to sorting, labelling, marking and packing of hazardous substances and chemicals.”

In order to ensure the proper classification of waste with hazardous properties, under Article 50(1) a legal person may carry out sampling and testing of waste properties, waste classification, waste classification for the purpose of disposal, testing of products and product packaging, and the assessment of the non-existence of a hazardous property in specific waste if it obtains from the Ministry a certificate of entry into the Register of Waste Testing Laboratories.

Cyprus divided its reply into three sections: traceability, labelling, and classification.

1) Traceability: All producers of hazardous waste are obliged to keep chronological records of the type, quantity, place of generation, way of storage, persons delivered and way of treatment of the waste produced. Parallel to that every time hazardous waste is to be transferred a document named “Identification and monitoring of transport of hazardous waste document” is used. This document contains all the relevant information regarding the waste and its destination and requires the producer of the waste and the collector to verify the information by
signing it. One copy remains with the producer. The collector is obliged to have this document signed by the producer during the transport of the waste to the treatment facility. The treatment facility, once it obtains the waste, verifies the information by signing the document and sending a copy to the producer.

2) Labelling: Producer, collector and treatment facilities are all obliged to pack and label the waste appropriately.

3) Classification: The classification of the European List of Waste is followed by all parties involved.

In the **Czech Republic**, the traceability of hazardous waste from producer to final disposal location is ensured through the condition of maintaining records of the transport of hazardous waste. This condition is composed of the completion of records that physically accompany the transportation of the hazardous waste. Control over the commencement and termination of the transport of hazardous waste is performed through notification to the affected authorities. At the current time the computerisation of the above indicated transport system is being prepared, which is expected to reduce administrative costs.

The themes of how to correctly allocate waste are addressed within the framework of regular training for employees of municipalities with extended powers. These employees then help waste producers with problems related to the allocation of waste on site. Professionally competent persons to evaluate dangerous characteristics are also regularly trained and tested by state administration bodies (the Ministry of the Environment, the Ministry of Health).

In **Denmark**, with regard to the tracing of hazardous waste, the Waste Order requires undertakings that produce hazardous waste (with the exception of explosive waste) to notify the municipal board of the waste. The notification must include information on the EWC code and the quantity, packaging, composition and properties of the waste. Waste collection undertakings and processing plants for hazardous waste must report the quantities of hazardous waste they receive to the Waste Data System.

Hauliers who transport hazardous waste and dealers and agents of hazardous waste which are not required to report to the Waste Data System must maintain a register of transported quantities and types of hazardous waste (EWC code), the producer of the hazardous waste and the delivery destination. The register information and documentation of this information must be retained for three years. It also follows from the Waste Order that municipal boards must issue a receipt to undertakings that deliver hazardous to a re-use site for each delivery.

In **Estonia**, under Section 62(2) of the Waste Act, a waste holder is required to label hazardous waste, except the hazardous waste produced by households, or the packaging thereof before the waste is transferred to the waste handler. Each shipment of hazardous waste must be accompanied by a consignment note for hazardous waste conforming to Section 64 of the Act. A consignment note for hazardous waste is a document which contains information concerning the type, composition, quantity and main properties of the hazardous waste transferred for handling and the producer of
such waste, the person who transfers the waste for handling, the transport operator and the consignee.

According to Section 6(1) of the Act, ‘hazardous waste’ means waste which due to at least one of the hazardous properties set out in Section 8 of the Act may cause a hazard to health, property or the environment. Government of the Republic Regulation No 103 of 6 April 2004 ‘Procedure for classifying waste as hazardous waste’ establishes the procedure for classifying waste as hazardous waste based on the origin, composition, the content of hazardous substances as defined in the Chemicals Act and the hazardous properties of waste specified in Section 8 of the Waste Act.

In Finland, the stipulations on record keeping are given in Sections 118 and 119 of the Waste Act. The operator shall keep a record of waste if the activity generates hazardous waste or treats hazardous waste on a professional basis or at an installation. The record keeping obligation concerns also operators who transport or collect hazardous waste on professional basis, or act as hazardous waste dealers. By request, the previous holder of waste and producer shall be provided with bookkeeping information concerning the management of waste delivered by them. According to Section 119, bookkeeping must include information on the type, quality, quantity, origin and place of delivery of waste generated, collected, transported, handled or treated, and waste transport and treatment. Bookkeeping information shall be stored in written or electronic format for six years.

According to Section 121, the waste holder shall draw up a shipping document on hazardous waste that is shipped and delivered to a consignee. The shipping document shall contain information, necessary to monitoring and supervision, on the type, quality, quantity, origin, delivery site and date, and waste carrier. The waste holder shall ensure that the shipping document accompanies the waste during shipment, and that it is submitted to the waste consignee after shipment. The document shall be signed by the consignee to confirm receipt of the waste and the quantity of waste received. The shipping document may be electronically stored if it is signed electronically and is accessible during shipment. The waste holder and consignee shall retain the signed shipping document or a copy thereof for three years following the signing of the document. Government Act on Waste (179/2012) stipulates on hazardous waste labelling and packaging. Guidance books on the correct classification of wastes (including hazardous wastes) have been published for example by the Finnish Environment Institute and Statistics Finland.

According to Sector 28l Act of Waste 1981:3 of the Åland Islands the companies that produce, collect, handle or transport hazardous waste must keep a record for ten years. When the hazardous waste is transferred it must have an identification document. The record and the identification document enable the waste to be traced. Hazardous waste must be labelled according to safety standards according to Sector 5 Decree of Waste 2011:74.

In Germany, tracking of hazardous waste is ensured by the detection methods. Hazardous wastes must be covered in accordance with section 50 KrWG. Through the
measures provided for in § 49 KrWG, the obligation exists to keep records that document 
the disposal of waste and ensure that Article 35 of Directive 2008/98 / EC is being 
implemented. According to the requirement of Article 35, paragraph 2, sentence 2 of 
Directive 2008/98 / EC, an amendment has been added to § 52 paragraph 1 sentence 2 
point 2 KrWG, and evidence for the disposal of waste must now be produced at the 
request of the competent authority. For the packaging and labelling of hazardous waste, 
provisions concerning risk materials are observed (e.g. application of hazard symbols). 
Lastly, § 55 paragraph 1 KrWG provides a labelling requirement for waste transport 
vehicles.

Classifications of waste as ‘dangerous’ take place on the basis of the Waste Catalogue 
Ordinance, with responsibility falling to the respective producer. A proper categorisation 
is ensured through implementation guidelines (e.g. the BMU: Notes on using the Waste 
Regulation of 09.08.2005), through information on the Internet (e.g. 
www.abfallbewertung.org) and by the local waste disposal authority through checks of 
the register and the material flow monitoring. The Waste Catalogue Ordinance lays 
down provisions relating to the European List of waste and consists of three articles: 
sphere of application; waste identification; and hazardous waste.

In Greece, establishments or undertakings intending to carry out waste treatment, and 
the producers of hazardous waste and the establishments and undertakings which 
collect or transport hazardous waste on a professional basis or act as dealers and 
brokers of hazardous waste shall keep a chronological record of the quantity, nature and 
origin of the waste, and, where relevant, the destination, frequency of collection, mode 
of transport and treatment method foreseen in respect of the waste, and shall make 
that information available, on request, to the competent authorities. Moreover 
producers, establishments, undertakings of hazardous waste management should report 
the respective quantities of the waste they produce or / and manage in the competent 
authorities. Additionally during collection and transport, hazardous waste must be 
accompanied by the recognition document, completed by the producer / holder (Article 
10 of JMD 13588/725/2006 (383 B)) in detail.

As set in Law 4042/2012 (OJG 24 A), during collection, transport and temporary storage, 
hazardous waste should be properly UN classified, packaged and labelled according to 
the respective international and community standards of waste transport (ADR, RID, 
IMDG, IATA). Moreover, during the granting of the environmental permit and in order to 
classify hazardous waste, sampling and qualitative and quantitative analysis are 
requested from the establishments or undertakings, for the justification of hazardous 
waste production and management.

In Hungary, compliance with the record keeping provisions of Article 35 of Directive 
2008/98/EC is ensured by Government Decree No 164 of 18 October 2003 on the record 
keeping and data supply obligations related to waste. Legal provisions for the correct 
labelling of hazardous wastes – with special regards to transporting – are laid down in 
Government Decree No 180 of 3 July 2007 on transboundary waste transport and Annex 
2 to Government Decree No 98 of 15 June 2001 on the criteria for pursuing activities 
related to hazardous wastes.
In order to ensure the traceability of hazardous waste from the generation to final disposal, Government Decree No 98 of 15 June 2001 on the criteria for pursuing activities related to hazardous wastes lays down rules in relation to waste producers, managers and transporters. In order to ensure the correct classification of wastes with hazardous properties as hazardous wastes, Annex 1 to Government Decree No 98 of 15 June 2001 on the criteria for pursuing activities related to hazardous wastes comprises ‘The detailed rules of the procedure ascertaining the hazardous or non-hazardous nature of waste’.

In Ireland, the Environmental Protection Agency has issued a detailed guidance document on the classification of hazardous waste. In addition, the Agency has developed a Hazardous Waste Classification Tool through a research project entitled Procedure for Identification of the Hazardous Components of Waste. The output of the project is a detailed breakdown of the complex legislation which is used in classifying the hazardous properties of a waste. Where a holder of waste wishes to provide evidence of the presence or absence of hazardous properties of that waste, in accordance with Article 3 of Commission Decision 2000/532/EC, the Hazardous Waste Classification Tool provides a mechanism to do this.

Non-hazardous waste facilities are not entitled to accept hazardous waste and this is verified through compliance auditing by the competent authority. In addition, each facility is obliged to produce an Annual Environmental Report, which confirms that hazardous waste is not accepted at the facility during the course of each calendar year. At hazardous waste facilities, which are regulated by the Environmental Protection Agency, the licensee is required to keep a record of a description of each load of waste (including the associated List of Waste code) arriving at the facility.

Where transfrontier shipment of hazardous waste takes place, the National TFS Office receives verification from the facility of destination that the waste of the hazardous waste classification certified on the notifications has been received. Where the hazardous waste classification is found to be incorrect, the consignment will be repatriated – however, this has not happened since the National TFS Office was established in 2007. Labelling of hazardous waste is a matter for the exporter in accordance with the International Maritime Dangerous Goods (IMDG) Code and is regulated by the Health & Safety Authority of Ireland.

In Italy, the provisions currently in force, contained in Articles 188, 189, 190, 193 and 256 of Legislative Decree No 152/2006, guarantee the utmost compliance with EU provisions set forth in Articles 17, 18, 19 and 20 of Directive 2008/98/EC. The above-mentioned provisions state that any person who collects and transports waste on a professional basis, dealers or brokers, establishments and undertakings that carry out waste recovery and disposal operations, consortia, undertakings and original producers of hazardous and non-hazardous waste are obliged to keep a waste register containing information on the properties and quantities of waste, to be used when submitting the annual notification to the Waste Registry. The register must also include the origin, quantity, properties and specific destination of the waste, the date of loading and unloading of the waste, the means of transport and the method of treatment used.
In Latvia, the producer or manager of hazardous waste must classify hazardous waste in accordance with laws governing waste classification and based on properties that render waste hazardous. If the classification of hazardous waste is not possible, the persons engaged in the management of hazardous waste must ensure an analysis of the origin, composition and chemical properties of hazardous waste in order to make the classification of waste possible. The producer or manager of hazardous waste must ensure the registration of hazardous waste in a special logbook in printed or electronic form.

Storage of hazardous waste will only be allowed in durable and safe packaging in accordance with the requirements specified in the laws governing the classification, labelling and packaging of chemical substances and chemical products. It is prohibited to mix or dilute hazardous waste with other chemical substances or chemical products.

The packaging of hazardous waste must be labelled by the persons engaged in the management of hazardous waste. The label must specify the name and origin of waste, the chemical composition of hazardous substances in waste, the date of packaging and the person who performed packaging, as well as warning signs in accordance with laws governing the classification, labelling and packaging of chemical substances and chemical products. The producer or manager of hazardous waste must, at least once every month during the storage of hazardous waste, ensure an inspection of the packaging. In transporting and storing hazardous waste, it must be classified, labelled and packaged in accordance with the requirements specified in laws and provisions of international legal acts binding on Latvia.

In Lithuania, pursuant to the Law on Waste Management (Official Gazette, 1998, No 61-1726; 2002, No 72-3016; 2011, No 52-2501; 2013, No 52-2501), every transporter of waste must carry an accompanying document for hazardous waste to ensure the traceability of hazardous waste. A separate accompanying document shall be filled in for each consignment of hazardous waste.

To ensure the traceability of hazardous waste, companies that generate waste and transporters and collectors of waste carrying out transportation and/or collection, temporary storage or treatment of waste must keep waste registers. Waste registers are checked by Regional Environmental Protection Departments during routine or non-routine inspections. The Environmental Protection Agency prepares special control questionnaires for the inspection of the entities engaged in specific economic activities, which are compulsory for officials of the Environmental Protection Agency and the Regional Environmental Protection Departments under the Ministry of the Environment when conducting inspections of the relevant economic areas within their competence. The holder of hazardous waste must identify and declare the hazardous waste in his possession under the procedure established by the Ministry of the Environment.

In Luxembourg, provisions for hazardous waste are included in Article 23 of the Law of 21 March 2012. Hazardous waste producers are required to ensure the traceability of such waste from the production stage to its final destination. To this end, subsequent users such as collectors, dealers, brokers or recipients communicate to waste producers
all the data necessary for them to meet the requirements laid down in the Article regarding the maintenance of registers and checks on prohibited activities.

Hazardous waste must be packaged and labelled in accordance with international and EU standards throughout collection, transportation and temporary storage. According to Article 8 paragraph 3) of the Act of 21 March 2012 on waste, the competent authority may consider waste as hazardous where, even if it does not appear as such on the list of waste, it displays one or more of the properties listed in Annex V to the Act. If the competent authority considers that a code used is not appropriate, it can automatically reclassify the waste by assigning the appropriate code. The persons whom this decision concerns shall be informed immediately by the competent authority.

In Malta, every transfer of hazardous waste has to be permitted in accordance with sub-regulation (3) of regulation 14 laid down in The Waste Regulations (LN184/11; as amended). Once the competent authority authorises the consignment permit, the producer or holder of the hazardous waste is to fill in a coded consignment note in accordance with sub-regulation (5) of regulation 14 which is to accompany the waste from the site of generation to the final disposal site. This document includes details on the waste itself (the amount of waste being transferred and the EWC code), but also information on the waste carrier, the waste generator and the final destination of the waste. This information will help the competent Authority trace the waste from the waste generator to the final destination.

Sub-regulation (2) of regulation 14 of The Waste Regulations (LN184/11; as amended) provides that the holder of hazardous waste is to ensure that, in the course of storage, collection and transport, such hazardous waste is securely packaged and labelled in accordance with international and national standards or as prescribed by the competent authority. All exported hazardous waste has to go through the process of the TFS notification system in accordance with Regulation (EC) No 1013/2006 on shipments of waste. This process keeps track of the waste exported until the waste arrives at the facility abroad. A copy of the facility’s declaration that the waste was managed accordingly is than submitted to the competent authority of dispatch.

With regard to the measures taken to ensure that waste with hazardous properties is correctly classified as hazardous waste, waste streams that are described as absolute hazardous waste entries in Council Decision 2000/532/EC establishing a list of waste are deemed to be hazardous. With regard to wastes falling under a mirror entry, the competent authority requests the holder of the waste to carry out the necessary testing to determine whether the waste exhibits any one or more of the hazardous properties laid down in Schedule 3 of (LN184/11; as amended) and as regards to H3 to H8, H10 and H11 one or more of the characteristics laid down in Article 2 of Council Decision 2000/532/EC.

In Poland, all waste holders are required to maintain waste records under the Act on Waste. The waste holder must retain these documents for 5 years, counting from the end of the calendar year in which they were drawn up. Additionally, once a year the waste holder is required to submit a summary of the types and amounts of waste,
methods of management and installations and equipment for the recovery and disposal of this waste. The summary should be submitted to the head of the relevant provincial executive by the end of the 1st quarter for the previous calendar year. The head of the provincial executive having jurisdiction over the place of waste generation, recovery or disposal verifies the submitted summaries. Moreover, he or she may, by way of a decision, request that the waste holder submit waste records.

Model waste records (including hazardous waste records) are specified in the Regulation of the Minister for the Environment of 8 December 2010 on Model Documents for Maintaining Waste Records (Journal of Laws No 249, item 1673). In accordance with Article 4(1) of the Act on Waste, waste is classified into groups, subgroups and types of waste, taking account of:

1) the source;
2) properties that render waste hazardous, specified in the Annex to the Act; and
3) waste components for which exceeding the limit concentrations of hazardous substances may render the waste hazardous.

Model waste records ensure the traceability of hazardous waste from the generation to final disposal. The waste producer is responsible in the first instance for proper waste classification.

In Portugal, producers, transporters and waste management operators must be registered and annual registration data in SIRER, supported within SIRAPA (Integrated Registration System of the APA), makes it possible to register the waste generated, transported and managed each year. Waste must be transported together with a waste consignment declaration (GAR), which includes the description, ELW Code, origin, destination and destination Waste Management Operator (WMO) of the waste, and this must be retained for a period of 5 years by producers, carriers and recipients (WMOs).

The carrier must also ascertain whether the waste to be transported is covered by Decree Law No 41-A/2010 of 29 April 2010 on the inland transport of hazardous goods, and the application of that law falls within the competence of the Mobility and Transport Institute (IMT). Thus, waste with that classification should comply with the applicable transport rules, in particular in terms of packaging and labelling (with hazard warnings). The National Waste Authority provides the general public with a service, clarifying uncertainties concerning the classification of waste according to the ELW (Order No 209/2004 of 3 March 2004) by telephone and in writing. The bodies performing audits or inspections, including SEPNA, the IGAMAOT and the CCDRs deal with issues relating to the correct classification and proper transport of waste.

In Romania, legal person producers and owners of waste are required to fit each type of waste generated by their own activity into the list of waste set forth by Government Decision no 856/2002 on waste management records, including of hazardous waste. At the same time, said legal persons are required to carry out and hold a characterisation of the hazardous waste generated by their own activity and of the waste that might be considered as hazardous due to its origin or compositions, with the aim of determining the possibilities of mixing, the methods of treatment and disposal of such waste.

The traceability of hazardous waste transportation on the national territory is ensured in compliance with the provisions of Government Decision no 1061/2008 on transportation of hazardous and non-hazardous waste on the Romanian territory.

In Slovakia, Sect. 20 of the Waste Act regulates national shipment of hazardous waste, while international shipment is carried out pursuant to the requirements of Regulation of the European Parliament and of the Council (EC) No 1013/2006 on shipment of waste. Provisions of sect. 20 of the Waste Act stipulate that the sender and the receiver of hazardous waste shall be obliged to keep records of transported categories of hazardous waste, and to report the necessary data from the register pursuant to letter a) to the district environment authority competent to the registered office or domicile of both the sender and the receiver of hazardous waste and, if the permit to transport hazardous waste has been issued by the regional environment authority, to the regional environment authority as well.

At the shipment of hazardous waste, the sender along with the receiver and the transporter shall be obliged to certify the accompanying hazardous waste file. Receiver of hazardous waste shall be obliged to send the signed accompanying hazardous waste file to the hazardous waste sender, district environment authority competent to the registered office or domicile of both the sender and the receiver of hazardous waste and, if the permit to transport hazardous waste has been issued by the regional environment authority, to the regional environment authority as well. Accompanying hazardous waste file is part of the provisions of Decree No 283/2001 on implementation of certain provisions of the Waste Act as amended.

The holder of waste shall also be obliged under sect. 19(1) to keep records of the categories and volumes of handled waste, its recovery or disposal, and report the kept information to the competent waste management public administration authority; in the case of municipal waste this provision shall only apply if the permission for its accessibility has not been part of statistical reporting. Details describing the obligation to keep records and to report are regulated in Decree No 283/2001 on implementation of certain provisions of the Waste Act as amended.

In Slovenia, the original producer of waste or other holder of waste must, under Article 25 of the Decree on Waste, ensure that a record sheet is completed for every shipment of waste transported in the territory of the Republic of Slovenia. This requirement does not apply to original producers of municipal waste. A joint record sheet may be provided for several different shipments of waste that an original waste producer or other holder of waste delivers up to the same person on the same day if the same transporter is involved. Under Article 28 of the Decree on Waste, a producer of waste that is a legal
entity or sole trader whose activity, in any given calendar year, generates more than 10 tonnes of waste or more than 5 kg of hazardous waste, or in any given calendar year employs ten or more people, regardless of the type of employment, must submit a report every year to the ministry on the waste generated and its management for the previous calendar year. Under Article 34 of the Decree on Waste, a collector must keep records of waste collection containing details on the classification numbers and quantities of:

- collected waste and the holders of waste from which it received the waste;
- waste placed in preliminary storage, separated by location of preliminary storage if it has more than one collection centre; and
- waste sent for further management to other persons in the Republic of Slovenia or other Member States or third countries, and on the persons to whom they sent the waste.

Under Article 41 of the Decree on Waste, a treatment provider must keep records of waste treatment containing details on the classification numbers and quantities of:

- its own waste if it treats it itself;
- waste received for treatment, and its holders, in the Republic of Slovenia;
- waste received for treatment from other Member States or third countries;
- waste whose treatment has been refused, and its holders;
- stored waste;
- treated waste;
- treatment products and post-treatment waste residues, and their further management; and
- waste which no longer has waste status.

A transporter that transports hazardous waste must, under Article 46 of the Decree on Waste, keep records of transports of hazardous waste in the form of a collection of copies of record sheets and the documents referred to in Regulation (EC) No 1013/2006 on shipments of waste that shows the chronological sequence of the hazardous waste transports. A transporter must retain these records for an individual calendar year for at least three years and allow the ministry or a competent inspector to inspect these records at their request.

Under Article 4 of the Decree on Waste, waste is treated as non-hazardous waste if it is classified as non-hazardous waste on the waste classification list. If the waste is classified on this list as hazardous waste, it is treated as hazardous waste. Under Article 5 of the Decree on Waste, the producer of the waste is responsible for ensuring that waste is correctly classified in accordance with the waste classification list, except in the case of release of the waste, when it must be classified by the person that receives the waste.

In Spain to ensure the traceability of hazardous waste, Article 25(2) of Law 22/2011 sets out that:

“25.2 All shipments of waste must be accompanied by an identification document, for the purposes of monitoring and control”
In addition, Article 40 of Law 22/2011 of 28 July lays down the obligation for all natural or legal persons subject to the notice or permitting scheme to keep a chronological record that includes all the information regarding management:

“Article 40 Chronological record

Registered natural or legal persons shall have a physical or electronic record that includes the quantity, nature, origin, destination and treatment method of the waste, in chronological order; where appropriate, the transport method and frequency of collection shall also be recorded.

The chronological record shall include the information contained in the documents confirming the waste production and management operations.

The recorded information shall be saved for at least three years.”

The correct classification and labelling of waste with hazardous properties is regulated in Articles 17 and 18 mentioned above. This regulation is supplemented with the provisions on the matter in Royal Decree 833/1988 of 20 July approving the Regulation for implementing Basic Law 20/1986 on Toxic and Hazardous Waste.

In Sweden the obligation to keep records of the waste can be found in a number of sections: 54, 55, 56, 57, 58 and 59 the Ordinance on waste. According to section 54 anyone who runs a business of recycling, recovery or disposal which fall under a permit requirement according to the Ordinance of Environmental Proceeding shall, for each type of waste managed in the business keep records on:

1) the origin of the waste,
2) the methods of recovery or disposal used,
3) the amount of waste that is recycled, recovered or disposed of annually, and
4) where the waste is placed when it is recovered or disposed of.

The records must be kept for at least three years. According to section 55 anyone who runs a business where hazardous waste is generated shall for each type of hazardous waste keep records on:

1) the amount of waste generated annually, and
2) where the waste is transported.

The records must be kept for at least three years. In sections 56-58 there are obligations on record keeping of waste for transporters of waste, brokers and dealers. For example in section 57 of the Ordinance on waste it is reported that if you transport hazardous

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waste, and is licensed under section 36 or is required to register your transports under
section 42, have to keep a record of:

1) the origin of the waste,
2) the amount transported each year,
3) the manner in which the waste is transported, and
4) where the waste is transported.

The records must be kept for at least one year.

Section 59 states that anyone who has kept records on waste according to the sections
54-58 is obliged to give the inspection and enforcement authority and former waste
holders access to the records, if the authority or the previous holder requests it. In
addition section 60 of the Ordinance on waste\(^\text{82}\) states that when hazardous waste is
transferred to a new holder for transport within Sweden a transport document must be
prepared. The transport document shall include data of the types and amount of waste
and the identity of the waste holder and of the receiver of the waste. The transport
document must be signed by the one who transfers the waste. If the transport
document is in digital form an electronic signature is sufficient.

When hazardous waste is transported it also has to be labelled according to Swedish Civil
Contingencies Regulations on the Transport of Dangerous Goods by Road and off-road.
According to SEPA guidance the general principle is that a substance regarded as
dangerous in accordance with Regulation (EC) No 1272/2008 should also be considered
dangerous when it is discarded i.e. becomes hazardous waste. Account must be taken to
the possible dilution of the product during use. The waste holder is responsible for
classifying the waste correctly according to the list of waste in annex 4 to the Ordinance
on waste.\(^\text{83}\) To trace a hazardous waste flow the inspection and enforcement authority
can review the documentation that is obligatory for all activities involved in the waste
handling that is described above. Regarding ensuring correct classification of waste see
reply to question 3 [Section 3.2].

In the United Kingdom Article 35 is transposed by the Hazardous Waste (England and
Wales) Regulations 2005. The Regulations require producers of hazardous waste to keep
records of the quantity, nature, origin and, where relevant, the destination, frequency of
collection, mode of transport and treatment method of the waste. The Regulations
require the person transporting the waste to keep records of this information. They also
require the notification of premises at which hazardous waste is produced or removed.
UK packaging and labelling requirements are transposed in legislation by the Carriage of
Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009 and
the Chemicals (Hazardous Information and Packaging for Supply) Regulations 2009.


In Northern Ireland, these requirements are transposed by Part 5 of the Hazardous Waste Regulations (Northern Ireland) 2005. In Scotland, Article 35 is transposed by the Waste Management Licensing (Scotland) Regulations 2011 Schedule 4 paragraph 14. Special waste is also covered by the Special Waste Regulations 1996 Regulations 15, 15A and 16. Regulations 15 and 15A are amended by the Waste (Scotland) Regulations 2011 Regulation 6(6) and (7) to align with the Waste Directive wording. All movements of special waste must be accompanied by a Special Waste Consignment Note to ensure traceability.

In Gibraltar, these requirements are legislated by the Public Health Act Part VA. Producers of hazardous waste are required to maintain records of such waste produced. The licencing regimes and transfrontier shipments rules imposed by the competent authority control and document all movements of hazardous wastes. For England the competent authority is the Environment Agency; for Scotland it is the Scottish Environment Protection Agency; for Wales it is Natural Resource Wales; for Northern Ireland it is the Northern Ireland Environment Agency; and Gibraltar has its own Environmental Agency.

### 3.10.3 Mixing of Hazardous Waste

**Question (11) (iii):** Please indicate how the mixing ban for hazardous waste is being implemented, by what means and in which cases the Member State has provided derogations from Article 18(1) of Directive 2008/98/EC allowing for mixing of hazardous waste.

**Article 18 (1)** enforces a ban on the mixing of hazardous wastes with either other hazardous wastes or non-hazardous wastes. Derogation from the ban is allowed by **Article 18 (2)** provided that the mixing operation is covered by an environmental permit, does not increase harm to environmental or human health (**Article 13**), and is undertaken using best available techniques. **Question (11) (iii)** asks Member States to explain how they have implemented the ban and to detail any cases of derogations.

25 Member States reported how they have implemented a ban on the mixing of hazardous wastes, and either provided details of derogations or else reported that no derogations had been allowed. The detailed replies are summarised below.

This includes **Ireland** which did not detail any cases of actual derogations, despite stating that they can occur with the permission of its Environmental Protection Agency.

**Member States replies are summarised below:**

In **Austria**, according to Section 15 AWG 2002 the mixing of waste with other wastes or materials is not permitted if doing so results in the hindering of the treatment of the waste. The common treatment of different wastes or of wastes and materials in an establishment shall not be deemed to constitute mixing within the meaning of this provision where such treatment is permitted for each individual waste. The joint collection of different types of waste or of wastes of the same type with different levels
of contaminant content is permitted where no chemical reaction occurs between the wastes and the joint use or treatment is permitted according to the reported criteria.

In **Bulgaria**, under Article 8(3) of the ZUO, holders of hazardous waste may mix waste provided that:

1) the mixing operation is carried out by persons holding a permit or an integrated permit under Article 35 of the ZUO;

2) the requirements not to increase the adverse impact of waste management on human health and the environment (under Article 1(3) of the ZUO) are complied with; and

3) the mixing operation conforms to best available techniques.

Where hazardous waste has been mixed in a manner contrary to the requirements of the ZUO, separation must be carried out where possible and necessary, subject to the criteria of technical and economic feasibility.

In **Croatia**, the mixing of waste is prohibited by Article 107 of the Sustainable Waste Management Act, which prohibits any mixing of hazardous waste with other types of hazardous waste displaying different physical, chemical or hazardous properties, and with other types of waste and other substances or materials, including the dilution of hazardous substances, is prohibited. It also states that if mixed such waste must be separated, subject to technical and economic feasibility. However, hazardous waste may be mixed with different hazardous waste if such mixing complies with the best available techniques. These provisions do not apply to hazardous waste generated in households.

In **Cyprus**, the mixing ban for hazardous waste is being implemented through terms in permit for separate storage and labelling for storage/treatment facilities and these facilities are often undergone inspections by the competent authority. No derogation allowing the mixing of hazardous waste is in place.

In the **Czech Republic**, the Waste Act states that the mixing of hazardous waste is banned and current legislation does not provide for any derogations.

In **Denmark**, the Waste Order also requires undertakings that produce or handle hazardous waste to ensure that the waste is not diluted or mixed with other hazardous waste or mixed with non-hazardous waste unless permitted by law or provisions issued pursuant to the law. The municipal authority, as the inspection authority, is responsible for carrying out inspections to ensure compliance with the ban. Denmark has so far not made use of the opportunity to provide derogations from the provision in Article 18(1) of Directive 2008/98/EC and permit the mixing of hazardous waste.

In **Estonia**, according to Section 60(1) of the Waste Act, the mixing of hazardous waste with other types of hazardous waste, non-hazardous waste or any other substances or materials is not permitted, except in the case provided for in Section 61 of the Act. According to Section 61(1) of the Act, the mixing of hazardous waste with other types of hazardous waste or with non-hazardous waste or any other substances or materials is permitted if the provisions of Sections 29(1) and (2) of the Act are complied with in order
to prevent or, if prevention is not possible, reduce the health or environmental hazards resulting from the waste and if mixing is technologically and economically justified.

In **Finland**, the mixing ban has been implemented by Section 17 of the Waste Act. According to it, hazardous waste shall not be diluted, or in other ways mixed with waste different in type or quality, or with other substances. The ban on mixing can be derogated from if mixing is necessary to facilitate the treatment of waste, and the activity has been granted an environmental permit under the Environmental Protection Act (86/2000). Waste must be separated if hazardous waste has been mixed contrary to the ban and if separation is necessary in order to prevent a hazard or harm to human health or the environment, and if such separation is technically feasible without undue cost. According to Section 13 of the Waste Act, the principle underlying waste management (including hazardous waste management) is to employ the best available technology and to comply with best environmental practices. The use of BAT and BEP is evaluated when the competent authority issues the environmental permit to the operator.

According to The Waste Act 8d § of the Åland Islands it is forbidden to dilute hazardous waste or mix it with different types of waste or other substances, unless it is necessary for recovery or disposal and it is safe for the environment and human health. The Åland Islands have not provided derogation for this.

In **Germany**, of Article 18 (1) of Directive 2008/98 / EC is transposed by Article 9 (2) KrWG, which prohibits the mixing of hazardous waste with other categories of hazardous waste or with other waste, substances or materials. The comprehensive prohibition on mixing and dilution ensures the provisions of the KrWG on hazardous waste in **Germany**, as it preserves the Waste Catalogue Ordinance (AVV) and prevents a reclassification of waste as hazardous or non-hazardous. The mixing ban is implemented through the framework of checks and permitting. Exceptions for uncontaminated materials are provided under the conditions of section 9 (2).

In **Greece**, according to national legislation, mixing of different categories of hazardous waste or hazardous with non-hazardous waste during collection, transport, disposal, recovery is prohibited. Cases of mixing different categories of hazardous waste or hazardous with non-hazardous waste are explicitly foreseen in the environmental permits issued by the competent authorities for hazardous waste recovery operations. In some cases where already stored hazardous waste has been mixed with other hazardous or non-hazardous waste, it must be wholly managed as hazardous waste and a specific permit is required.

In **Hungary**, a ban on mixing hazardous wastes is detailed by Article 9 of Government Decree No 98 of 15 December 2001 on the criteria for pursuing activities related to hazardous wastes. The mixing of hazardous wastes with other hazardous wastes, non-hazardous wastes or any other materials for the purpose of treatment shall only be permitted when each of the following criteria is simultaneously satisfied:

1) recovery or disposal can be carried out at a higher efficiency as a result of the mixing in comparison with the individual treatment of the waste;
2) the extent of potential adverse environmental impacts will not increase as a result of the mixing as compared to the prior state;
3) mixing does not represent risks to human health, living organisms, waters, the air, soils and the biosphere; and
4) mixing does no induce unpleasant environmental impacts via noise or odours; and the environment is not contaminated during or as a consequence of the mixing.

In **Ireland**, Regulation 7(2) of the European Communities (Shipments of Hazardous Waste exclusively within Ireland) Regulations 2011 (S.I. No. 324 of 2011) provides that – unless given permission to do so by the Environmental Protection Agency, the waste producer, the notifier, waste holder, carrier, and any other person involved in a shipment of hazardous waste shall take the measures necessary to ensure that such waste is not mixed, either with other categories of hazardous waste or with other waste, substances or materials and such mixing shall include the dilution of hazardous substances. The mixing ban is also made a legal obligation in the permit conditions for all IED and Waste Regulated facilities. Any mixing request needs the approval of the EPA.

In **Italy**, Article 187 of Legislative Decree No 152/2006 governs the mixing of hazardous waste as follows:

“It is illegal to mix hazardous waste with different hazard properties or hazardous waste with non-hazardous waste. Mixing includes the dilution of hazardous substances. By derogation from paragraph 1, the mixing of hazardous waste which does not have the same hazard properties, alone or with other waste, substances or materials, may be authorised in accordance with Articles 208, 209 and 211 on condition that:

(a) the conditions referred to in Article 177(4) are satisfied and the negative impact of waste management on human health and on the environment is not increased;

(b) the mixing operation is carried out by an establishment or undertaking which has obtained authorisation in accordance with Articles 208, 209 and 211;

(c) the mixing operation complies with best available techniques as referred to in Article 183(1)(nn).

3. Without prejudice to the application of specific penalties, particularly those referred to in Article 256(5), anyone who violates the ban referred to in paragraph 1 is required to proceed at its own expense with the separation of the mixed waste, where this is technically and economically possible, in accordance with Article 177(4).”

Since exemptions from the mixing ban are granted on a regional basis and there is no obligation to report the relevant information, the Ministry is not aware of any authorisation issued or any relevant quantification.

In **Latvia**, the mixing ban for hazardous waste is defined by the Waste Management Law, according to which it is prohibited to mix hazardous waste of different categories as well...
as to mix hazardous waste with municipal waste or production waste. Latvia has not provided any derogations from Article 18(1) of Directive 2008/98/EC.

In Lithuania, pursuant to the Law on Waste Management (Official Gazette, 1998, No 61-1726; 2002, No 72-3016; 2011, No 52-2501; 2013, No 52-2501), hazardous waste cannot be mixed with other hazardous waste or other waste or materials. Mixing includes the dilution of hazardous waste. Lithuania has not provided for any derogations from Article 18(1) of Directive 2008/98/EC and has set out the following exemptions for the mixing of hazardous waste. Hazardous waste can be mixed if:

1) mixing is done by a company that has obtained a permit;
2) there is no increased human-health or environmental impact from the management of hazardous waste;
3) mixing is in line with the best available production technique.

Requirements for the mixing of hazardous waste are presented in the Rules on Waste Management (Official Gazette, 2011, No 57-2721):

1) hazardous waste can be mixed with other hazardous waste or other waste or materials only in line with the conditions laid down in the Law on Waste Management. Mixing includes dilution;
2) where hazardous waste has been mixed in breach of the conditions for the mixing of hazardous waste laid down in the Law on Waste Management, the waste holder must, if it is technically possible and necessary, separate these wastes without causing a significant negative impact on human health and the environment.

In Luxembourg, the mixing of hazardous waste with other categories of hazardous waste or with other waste, substances or materials is prohibited. Mixing shall include the dilution of hazardous substances (see Article 23 (3)). However, the Minister may allow mixing provided that:

1) the mixing operation is carried out by an establishment or business that holds an authorisation pursuant to section 30 of the Act of 21 March 2012;
2) the provisions of Article 10 of the Law of 21 March 2012 are met and the harmful effects of waste management on human health and the environment are not increased; and
3) the mixing operation conforms to best available technology.

Where hazardous waste has been mixed in ignorance a separation operation must take place, if possible and appropriate, taking into account criteria of technical and economic feasibility.

In Malta, the ban on the mixing of hazardous waste is laid down in regulation 16 of The Waste Regulations (LN184/11; as amended). Permits issued by the competent authority for the collection, transport, storage and management of hazardous waste specifically state that hazardous wastes shall not be mixed, either with other categories of hazardous waste or with other waste, substances or materials. Mixing includes the dilution of hazardous substances.
No derogations have been provided allowing for the mixing of hazardous waste during the reporting period.

In **Poland** in accordance with the Act on Waste, a ban was introduced on mixing different types of hazardous waste, mixing hazardous waste with non-hazardous waste and mixing hazardous waste with substances, materials or objects, including the dilution of hazardous substances. The mixing of different types of hazardous waste, the mixing of hazardous waste with non-hazardous waste and the mixing of hazardous waste with substances, materials or objects to improve the safety of treatment processes of waste produced as a result of the mixing is permitted provided that these processes do not increase the threat to human life and health and the environment.

If hazardous waste has been mixed with other waste, substances or objects, it should be separated provided that the following cumulative conditions are met:

- the recovery or disposal of waste produced as a result of the separation will reduce the threat to human life and health or the environment; and
- the separation is technically possible and economically justified.

The waste holder who mixed waste oils with other hazardous waste during the collection or storage was subject to imprisonment or a fine if the level of pollutants in the waste oils exceeded the permissible level. An entity that mixed different types of hazardous waste or hazardous waste with non-hazardous waste or permitted such mixing was subject to a financial penalty. The mixing of different types of hazardous waste, the mixing of hazardous waste with non-hazardous waste and the mixing of waste oils with other hazardous waste, including waste containing PCBs, during the collection or storage was prohibited if the level of specific substances exceeded the permissible level. In justified cases, a provincial environmental protection officer was able to suspend, by way of a decision, the collection, transport, recovery or disposal activities carried out by a waste holder.

In **Poland**, the mixing ban for hazardous waste is provided for in Article 21 of the RGGR; in particular, that operation may be performed only where all the following conditions are satisfied: due authorisation by the respective licensing authorities (APA and CCDRs), respect for human health and the environment (Article 6), and compliance with Best Available Techniques (BAT). It follows from the above that the bodies responsible for waste licensing and supervision (SEPNA, IGAMAOT and the CCDRs) deal with that issue of hazardous waste mixing.

In **Romania**, producers and owners of hazardous waste, including traders and brokers who can take physical possession of the waste, are required to not mix the different categories of hazardous waste with other categories of hazardous waste or with other waste, substances or materials. Territorial public authorities for environmental protection may authorise mixing only in the cases specified by the Directive. Through thematic and unannounced controls, the National Environmental Guard oversees the observance of the provisions of the law.
In Slovakia, dilution and mutual mixing of individual categories of hazardous waste or mixing hazardous waste with waste other than hazardous for the purposes of reducing the concentrations of present harmful substances shall be banned pursuant to sect. 40(1,2) of the Waste Act. Mixing of individual categories of hazardous waste or mixing hazardous waste with waste other than hazardous may only be carried out if it is needed for increasing the safety during waste recovery or disposal and if such is compliant with the granted permit.

If, contrary to paragraphs 1 and 2, waste categories have been mixed, the competent district environment authority may, in cases where it is technically and economically feasible and necessary for the protection of human health and the environment, issue a decision to separate the hazardous waste. Pursuant to sect. 7(1) of the Waste Act, the competent authority may grant permit to store waste without prior sorting to the holder of waste, if, due to its subsequent recovery or disposal, sorting and separate collection is not possible or practical.

Mixing of hazardous waste was permitted in the case of waste oils only if their mixing does not impede their subsequent recovery and it is possible to recover such mixed waste oils; at the same time, confirmation of the operator of an installation where the mixed oil is to be recovered shall also be needed.

In Slovenia, Article 23 of the Decree on Waste lays down that hazardous waste may not be mixed with hazardous waste that has different physical, chemical or hazardous properties, or with other waste and substances or materials, including mixing by means of the diluting of hazardous substances. This provision does not apply to mixed municipal waste from households. Fines are in place for breaches of this provision.

Article 23 of the Decree on Waste lays down that the ministry may, in an environmental permit for the recovery or disposal of waste, allow the mixing of hazardous waste with hazardous waste that has different physical, chemical or hazardous properties, or with other waste and substances or materials, if:

- the requirements regarding protection of the environment and human health are met and the adverse impact of the management of the waste on human health and the environment is not increased; and
- the best available techniques are used for the mixing procedure.

Three environmental permits for the mixing of waste were issued in the reporting period on the basis of this provision.

In Spain the mixing ban for hazardous waste is laid down in Article 18 of Law 22/2011 of 28 July:

“Article 18. Obligations of the producer or other original holder in relation to storage, mixing, packaging and labelling of waste.

In relation to the storage, mixing and labelling of waste in the place of production, the producer or other original waste holder is obliged to:
Keep the waste stored under appropriate hygiene and safety conditions as long as it is in his possession.

The duration of the storage of non-hazardous waste in the place of production shall be less than two years when it is destined for recovery, and one year when it is destined for disposal. For hazardous waste, in both cases, the maximum duration shall be six months; in exceptional cases, the competent body of the Autonomous Communities in which this storage takes place may modify this period, for duly justified reasons and provided that the protection of human health and the environment is guaranteed.

The abovementioned periods shall begin to be counted from when the waste is deposited in the place of storage.

Refrain from mixing or diluting hazardous waste with other categories of hazardous waste or with other waste, substances or materials.

Where technically feasible and economically viable, waste oils of different characteristics shall not be mixed with one another or with other waste or substances, if such mixing impedes the treatment thereof.”

There has been no derogation from the provisions of this article.

In Sweden according to sections 16-17 of the Ordinance on waste hazardous waste must not be mixed with other categories of waste. According to sections 18-19 of the Ordinance on waste there are situations where this can be allowed.

“Section 18 prescribes that the provisions on mixing of hazardous waste in sections 16 and 17 shall not apply to such mixing of waste that has been made or is made:

by someone whose handling of the waste is covered by a permit or a notification referred to in Chapter 9 section 6 Environmental Code,

in an acceptable manner with regards to health and the environment, and

by using the best available technology.

Section 19 prescribes that the provisions on mixing of hazardous waste in sections 16 and 17 shall not apply to:

household waste that is hazardous waste, if the hazardous waste is mixed with other household waste, or

oily ballast water or tank washings from vessels on the oily water is received and processed in accordance with the Act (1980:424) on Prevention of Pollution from

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The hazardous waste from households is not always sorted out by citizens. Because of this there is an exception from separate handling of hazardous waste with regards to municipal waste when collecting this fraction.

In the United Kingdom in England and Wales, Part 4 of the Hazardous Waste (England and Wales) Regulations 2005 prohibits the mixing of hazardous waste with different categories of hazardous waste, with non-hazardous waste or with other substances or materials except where the mixing is part of a disposal or recovery operation and is authorised by, and conducted in accordance with the requirements of a waste permit. Where hazardous waste is already mixed, the Regulations require holders to separate that waste where technically and economically feasible and where necessary to comply with Directive conditions. Part 4 of the Hazardous Waste Regulations (Northern Ireland) fulfils the same purpose for Northern Ireland. In Scotland, the Special Waste Regulations 1996 Regulation 17 and 17A restrict the mixing of special waste. The Waste (Scotland) Regulations 2011 regulation 6(8)(b) to (e) and (9) amend these provisions to align with the current Directive wording. It also extends the mixing ban to substances and materials other than wastes, tightens the exception to the mixing ban and provides that mixing includes dilution. Section 192KB (1) of the Public Health Act fulfils the same purpose for Gibraltar.

**Conclusion:**

Member States reported that hazardous waste is managed well. 25 countries have reported that they are managing hazardous waste in accordance with Article 13’s requirements on the protection of human health and the environment.

By contrast the practice of labelling hazardous waste was relatively neglected in the reporting. Austria, Bulgaria, Denmark, Poland and Sweden did not provide any information on labelling, despite it being the main focus of Article 19. The rest of the Member States reported that labelling takes place alongside systems of electronic tracking and waste transfer notes. Cyprus, for example, reported that producers, collectors and those treating waste are all obliged to label waste, which will ensure that labelling occurs at all points.

Member States also reported that the ban on the mixing of hazardous waste has been well implemented, with 25 Member States stating that a ban has been introduced. This includes Ireland which did not report on whether any derogation from the ban has in fact been allowed in 2010-2012.
3.11  Waste Oils

3.11.1  Separate Collection and Treatment

**Question (12) (i): Please describe the scheme applied in the Member State for separate collection and treatment of waste oils.**

*Article 21* which is the relevant article for this question concerns the management of waste oils, with point *(1) (a)* of the article requiring that, where technically feasible, waste oils should be collected separately, and point *(1) (b)* requiring that waste oils should be treated in line with the waste hierarchy (*Article 4*) and without harm to environmental or human health (*Article 13*). *Question (12) (i)* asks Member States to describe the schemes they have put in place to ensure this.

**24 Member States** provided detailed replies on their schemes for the separate collection and treatment of waste oils. The replies are summarised below.

In addition the **United Kingdom** has put in place no legislative measures to ensure that waste oils are collected separately, with only voluntary collection occurring within its borders.

Good practice is found in **Croatia**, which reported that its legislation mandates that producers of oils have a responsibility to inform vendors of the manner and locations of waste oil collection and to inform consumers of locations where they can hand over waste oil free of charge. Also, **Italy** reported that it has established a national consortium made up of companies selling oils on the national market which covers the costs of collection and pays a fee to regeneration companies.

*Member States replies are summarised below:*

In **Austria**, waste oils must be collected separately from other kinds of waste (section 15 AWG 2002). As a special type of hazardous waste, Section 16 of the AWG 2002 explicitly requires separate arrangements for the collection of waste oils, and also that waste oils of different quality be collected separately.

In **Bulgaria**, Under Article 19 of the Regulation on Waste Oils and Waste Petroleum Products, waste oils recovery scheme operators and persons placing oils on the market and fulfilling their obligations individually establish systems for separate collection and recovery of waste oils which ensure:

1) separate collection of the oils produced by vehicle service stations upon oil replacement;
2) separate collection of waste oils from the oil replacement points designated by municipality mayors;

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86 The management of waste oils within the EU was previously legislated for by the Waste Oils Directive 75/439/EEC, however, that Directive was repealed on the 12 December, from which time the management of waste oils has been governed by the revised Waste Framework Directive.
3) separate collection of waste oils produced by the operation of equipment and plant from the preliminary storage sites; and
4) delivery of the oils collected to recovery or disposal facilities where their recovery is technically, economically and organisationally unfeasible.

In Croatia, pursuant to the Rules on Waste Oil Management (OG 124/06), the oil producer shall notify the oil vendor about the manner and locations of waste oil collection. The oil vendor shall notify the buyer about the location where to hand over his waste oil without paying a charge. The holder of waste oils shall hand over the waste oils to an authorised waste oil collector. The authorised collector shall take charge of the waste oils without a charge and shall hand them over to an authorised waste recovery operator in the Republic of Croatia or export them for recovery in the event that there is no authorised company for material recovery and/or thermal treatment and/or waste oil disposal in Croatia. The authorised recovery operator shall take charge of the waste oils from the collector without a charge. The system established in the Rules on Waste Oil Management requires producers/importers of fresh oils to pay a charge for their disposal to the Environmental Protection and Energy Efficiency Fund (FZOEU), which shall reimburse the authorised collectors for the costs of waste oil management.

In Cyprus, producers of waste oils are under the obligations of the producer of hazardous waste. Through the obligation of not mixing their waste, waste oil is kept separately. The scheme for separate collection of waste oils takes place, as the licensed waste oil collector collects the oil from the places that the waste is generated (vehicle repair shops and gas/oil station) and it is transferred to licensed treatment facilities for the cleaning of waste and transformation to secondary fuel in order to be burned in cement kilns.

In the Czech Republic, from the perspective of the system of financing, waste oils are collected:

1) on the market principle by people authorised to collect and purchase waste according to the Waste Act; and
2) through take-back by the producer (the obligated entity) according to Section 38 of the Waste Act.

Denmark has established voluntary agreements with two organisations that collect waste oil with a view to regeneration. These organisations are each affiliated to their own group of oil producers, which periodically submit reports on the quantities of oil types suitable for regeneration that are sold. The organisation then issues an invoice to each producer based on a fixed amount per litre of product that is sold. This income finances the collection scheme. The organisations have contractual agreements with authorised operators which are responsible for the physical aspects of the collection and for forwarding the waste to regeneration plants. Waste producers can register for these schemes and have their waste oil collected free of charge. Every year, approximately 30 000 tonnes of oil which is suitable for regeneration are sold. Approximately 16 000 tonnes are collected annually, which means that the collection rate is approximately 53%.
In **Estonia**, according to Section 651(3) of the Waste Act, waste oils are collected separately. Waste oil is hazardous waste and may only be transferred to an undertaking holding a hazardous waste management licence and a waste permit or integrated permit. All general requirements for waste management also apply to the collection and treatment of waste oil.

In **Finland**, as a general rule, the waste holder is obliged to organise the separate collection of different types of oil waste. The treatment of oil waste must be organised in accordance with the order of priority of waste management (giving priority to re-use and material recycling). The oil waste management shall be organised in a manner that does not cause harm to the human health or the environment (the Government Decree on Waste, Section 17). Additional provisions on the incineration of oil waste are given in the Government Decree on the incineration of waste (151/2013). Oil waste may not be burned in a waste incineration plant or co-incineration plant with a fuel capacity effect of 5 MW or less.

Collection of oil waste has been organised throughout Finland. The Ministry of the Environment has made an agreement with a private waste management company (Lassila & Tikanoja Oyj) on the collection and sound treatment of oil waste. The arrangement is financed by funds collected as waste oil charge. Waste lubrication oil is received from holders free of charge if the amount of oil is more than 200 l. Municipalities are responsible for the collection of smaller amounts of oil waste. The collected oil waste is allocated into black lubricating oils, bright good quality lubricating oils and other lubricating oils. The black lubricating oil is used for example for production chain saw oils. Other lubricating oils are used mainly for energy production.

In the Åland Islands waste oils are collected separately at manned collection sites. The waste oils are transported to the mainland for recovery.

In **Germany**, the requirement for segregation of waste oils falling within the AltölV is implemented in § 4 paragraphs 1 and 3 by a mixing ban. The AltölV divides waste oils into four collection categories by codes. The mixture of waste oils of these different categories is prohibited. For waste oils in collection categories 2 to 4, however, segregation is not required in exceptional circumstances. A more far-reaching, waste code-sharp mixing ban would require a sophisticated collection and recycling process which is not economically viable. According to § 6, paragraph 1 of the AltölV, waste oil collectors are in addition required to make a statement on the disposal of waste oils. Compliance with these regulations is monitored by the competent national authorities. According to § 2 paragraph 1 AltölV the priority for regeneration before other disposal procedures applies. Reference is also made to the statement of the Federal Government on 19.3.2012 to the EU Pilot request 2012/2937 of 17.01.2012.

In **Greece**, according to the current legislation (PD 82/2004) concerning the alternative management of waste oil, waste oils are separately collected from the place of their production, for example garages, fuel stations, industries, reception facilities in harbours, airports, and units where the sale and replacement of oils (or only the
replacement) take place. This kind of waste is collected by collectors / transporters who have the necessary permits and collaborate with the PRO schemes for waste oils. It is then taken to collection centres and afterwards to regeneration / recovery installations.

In Hungary, Act XLIII of 2000 on Waste Management stipulated as a general rule that the separate collection of waste for further treatment is the obligation of the waste producer or waste holder. In addition, this Act prohibited the mixing of hazardous wastes with other wastes or materials without the permit of the environmental authority. Act CLXXXV of 2012 on Waste also lays down a general rule stating that waste holders must collect wastes in a separate manner to enable transport for treatment, and separately collected wastes must not be mixed with other wastes, or with other materials with different properties. By way of derogation from Act XLIII of 2000, the new act of 2012 specifically requires also in relation to waste oils that waste oils are collected separately.

Pursuant to Decree No 4 of 23 February 2001 of the Minister for the Environment on the detailed rules of treating waste oils, when waste holders are unable to recover or dispose of the waste oils generated during their activities in accordance with the legal requirements, they must hand over the waste oils to business operators entitled to pursue management activities. The conditions of collecting waste oils are laid down by a separate piece of legislation on the activities related to hazardous wastes. Decree No 145 of 27 December 2012 of the Minister for Rural Development on the detailed rules of waste management activities related to waste oils was repealed by Decree No 4 of 23 February 2001 of the Minister for the Environment. The drawing up of this new decree was justified by the need to adjust the regulation to the provisions of the WFD. Decree No 145 of 27 December 2012 stipulates that household-generated waste oils must be handed over to waste treatment entities with a waste management permit for waste oil treatment, or must be transported to authorised waste collection yards or reception sites.

In Ireland, Section 32 of the Waste Management Act imposes a duty of care on a person not to hold, transport, recover or dispose of waste, or treat waste, in a manner that causes or is likely to cause environmental pollution. Section 34 contains provisions that require a collector of waste oil to hold a waste collection permit and Section 39 provides that facilities for the storage, transfer and treatment of collected waste oil shall have the requisite waste authorisation. Extensive collection facilities are in place for the collection of waste oils. A number of licensed waste contractors offer a free waste oil collection service throughout Ireland that is provided for a wide range of oil types for both small and large quantities from producers across all relevant sectors, including the automotive industry, service garages, industrial and engineering facilities, as well as from the shipping and the agricultural sectors. Collection rates for waste oils from service garages are reported to be close to 100%. In addition, 43 Civic Amenity Facilities have receptacles for the collection of waste oil from commercial enterprises and members of the public.

Ireland is substantially self-sufficient in terms of treatment capacity for waste oils and mineral oil waste, although some movements of waste oil take place to and from
Northern Ireland and very small amounts are also shipped outside of the island of Ireland. Two specialist companies, Rilta and Enva treat the vast majority of waste oil, oily sludges and oil contaminated liquids in Ireland.

In Italy, a system is in force in based on producer responsibility for the management of waste oils. A national consortium exists (Consorzio Obbligatorio degli Oli Usati, or COOU) as well as other smaller consortia composed of companies that sell lubricants in the Italian market. The COOU is also subject to government supervision through the participation of representatives from the competent Ministries on the consortium’s governing bodies.

The COOU, in order to achieve its objectives, uses an extensive collection network consisting of independent dealers and collectors located nationwide. These are private operators, authorised by the competent authorities to collect waste oils from holders (industry, service stations, vehicle repair shops, recycling banks, etc.), before storing the waste oils in their depots. Waste lubricants are collected from producers directly or using subcontractors. Once transferred to the consortium’s depots, waste oils are analysed to identify their properties and to decide on the correct management channel, which may be regeneration, combustion or incineration.

Collection takes place free of charge for the holder. The costs of the collection incurred by collectors are covered by the Consortium. In addition, the COOU also pays regeneration companies a fee (Law No 166 of 20 November 2009) to sell the regenerated base oils at market prices.

In Latvia, Cabinet Regulation No 485 of 21 June 2011 “Procedure for the Management of Certain Types of Hazardous Waste” foresees that, where this is technically feasible and economically viable and meets the conditions listed in the category A or B pollution permit or the waste management permit, the manager or holder of waste oils must ensure compliance with the following requirements:

1) waste oils of different characteristics are not mixed;
2) waste oils are not mixed with other kinds of waste or substances if such mixing impedes their further regeneration or disposal;
3) waste oils are recycled;
4) waste oils are regenerated; and
5) waste oils are stored or disposed of following the procedure prescribed by waste management laws.

Compliance with the requirements laid down in the Law on Waste Management and the Rules on Waste Management is monitored by state environmental inspectors. Mixing of hazardous waste, including dilution in breach of the established requirements, incurs a fine ranging from LTL 300 to 800 for citizens and from LTL 500 to 1500 for officials.

In Lithuania, Pursuant to the principle of producer responsibility (see reply to Question 4 for further details), the legislation enshrines the responsibility of producers and importers for the environmental impact of waste products and packaging supplied by them to the internal market, including waste oils, during their entire life cycle from production to safe elimination of waste.
Pursuant to the National Strategic Waste Management Plan for 2007–2013, waste oils are managed in a manner that is safe for the environment and public health and in line with the principle of producer responsibility, according to which oil producers and exporters must:

1) organise separate collection of waste oils from companies providing vehicle maintenance and repair services and delivery to the waste manager authorised to manage waste oils;
2) where it is technically possible, ensure that waste oils are collected separately and treated in line with the waste hierarchy;
3) inform the public of the scheme for the management of waste oils and the damage done to the environment and public health due to inappropriate management;
4) achieve the following targets for the management of these waste oils: regenerate, recycle or otherwise recover (for example, to recover energy or fuel in line with the quality requirements for liquid fuel) at least 30% of waste oils as of 2008, and at least 50% of waste oils (calculated from the amount of oil supplied to the market per year) as of 2012; and
5) cover all waste oil management costs (including collection) on the basis of the targets set for the management of these waste oils.

In accordance with the Law on Waste Management (Official Gazette, 1998, No 61-1726; 2002, No 72-3016; 2011, No 52-2501; 2013, No 52-2501), holders of waste oils who are natural persons (except for natural persons providing vehicle maintenance and repair services individually) must deliver waste oils to waste managers authorised to manage waste oils or companies providing vehicle maintenance and repair services.

In Luxembourg, provisions relating to waste oils are contained in Article 24 of the Law of 21 March 2012. Waste oils are:

1) collected separately, where this is technically feasible;
2) treated in accordance with Articles 9 and 10 of the Law of 21 March 2012; and
3) where this is technically feasible and economically viable, waste oils of different characteristics are not mixed together, nor are waste oils mixed with other wastes or substances, if such mixing impedes their treatment.

Waste oil producers must collect used oils from their facilities or equipment and store them in satisfactory separation conditions, with no mixing with water including precipitation, leakage or any direct or indirect contamination of soil, surface water or groundwater.

The collection of waste oil from households is organised in the framework of the SuperDrecksKëscht fir Birger which is operated by the state. The collection of waste oil from businesses and institutions is provided by waste collectors duly authorised in accordance with Article 30 of the Law of 21 March 2012.

In Malta, Schedule 7 of The Waste Regulations (LN184/11; as amended) provides that the competent authority may introduce legislative measures to ensure that producers of oils use existing or set up systems, individually or collectively, or both, for the collection
and recovery of waste oils. Civic amenity sites provide for the separate collection of waste oils from households. Additionally waste oils generated by industry are collected by authorised waste collectors and the transportation of waste oils as to abide to the consignment permit/note regime laid down in regulation 14 of The Waste Regulations (LN184/11; as amended).

In Poland, waste oil collection, storage and qualification for an appropriate recovery or disposal process is carried out in accordance with the Regulation of the Minister for Economy and Labour of 4 August 2004 on Detailed Method for Handling Waste Oils (Journal of Laws No 192, item 1968). Requirements laid down in the above-mentioned Act for the handling of waste oils in order to qualify them for an appropriate recovery or disposal process and eligibility criteria for regeneration aimed at obtaining base oils as well as properties qualifying waste oil for disposal were laid down in 2007 in Annexes to the report on the transposition and implementation of Council Directive 75/439/EEC.

Portugal opted to apply the strategy based on the extended producer responsibility (EPR) principle for the management of the specific stream of waste oils, given the characteristics of that type of waste, at the same time ensuring that the treatment and final disposal were consistent with the principles of protecting human health and the environment. Decree Law No 153/2003 of 11 July 2003, as amended by Decree Law No 73/2011 of 17 June 2011, establishes the legal regime to which the management of new oils and waste oils is subject, providing producers of new oils with the opportunity to choose the manner in which they intend to assume their extended responsibility, either through an integrated system or through an individual system, and defines the scope of the management objectives revised in 2011. The Decree contains targets for 85% collection of waste oils generated annually, 75% recycling of waste oils collected and 50% regeneration of waste oils collected where these oils meet the requisite technical specifications. Furthermore, there should be recovery of all waste oils collected and not subject recycling.

The Portuguese Environment Agency, I. P. (APA, IP) (Portuguese State body designated as the National Waste Authority) is involved in the systems at three levels. First at the administrative level, as the body responsible for licensing and coordination of the licensing process for the systems forming part of the requirements of extended producer responsibility. Secondly, at the control level, it monitors the technical and financial aspects of the performance indicators and evaluates the activities carried out by the management body. Finally, it is involved directly in the approval of financing to ensure the sustainability of the system – fees from the producers of products and other financing assigned to other stakeholders in the system.

In Portugal, SOGILUB - Sociedade de Gestão Integrada de Óleos Lubrificantes Usados, Lda. is the only management body licensed for the purposes of managing an integrated waste oils system, under Joint Order No 662/2005 of 6 September 2005, issued by the Ministry of the Environment, Town and Country Planning and Regional Development and the Ministry of the Economy, Innovation The system is financed by the producers of new oils, which manage waste oils, through the payment of a fee whose amount depends on the amount of new oil placed on the market by the producer of new oil. In addition to the revenue from the fee, the integrated system raises revenue through the sale of
treated waste oil to recyclers of waste oils (recyclers and regenerators). and
Development, and extended by Order No 4364/2011 of 10 March 2011.

In Romania, the legal framework aims at the enforcement of the ‘polluter pays’ principle and at empowering the producer (obligation to organise the used oil management system for the types of sold oil, within the limit of the amounts placed on the market).

Slovakia, does not have a special scheme for separate collection and treatment of waste oils; however, treatment of waste oils is part of the Waste Management Programme of the SR for 2011–2015. The Waste Act regulates the basic obligations on waste oils. Sect. 42(3) of the Waste Act bans discharging of waste oils into surface water streams, ground water and sewerage networks, storing or discharging of waste oils, and any discharge of residues after the treatment of waste oils into the soil.

Pursuant to sect. 42(4) of the Waste Act, given the favourable technical, economic, and organizational conditions, holder of waste oils shall be obliged to give priority to their regeneration; otherwise, the holder shall be obliged to ensure their energy recovery in line with special regulations. If their recovery is not possible, holder of waste oils shall be obliged to ensure their disposal. Pursuant to sect. 42(6) of the Waste Act, waste oils may be collected, transported, recovered or disposed of if only separated from other waste types. Pursuant to sect. 39(3) of the Waste Act, the municipality, through introducing appropriate waste collection system, shall be obliged to ensure on the need-to-need basis and at least twice a year the collection and shipment of bulky waste for the purposes of its recovery or disposal and separately sorted household waste containing harmful agents and small construction waste.

Section 19(1) of the Waste Act requires the waste holder to store hazardous waste separately by its categories; it should be labelled following a designated labelling approach, and treated in compliance with this Act and special provisions. Waste management programme of the SR for 2011–2015 lays down targets for management of waste oils: to reach, by 2015, a 60% rate of material recovery and a 40% rate of energy recovery. Chapter 3.2.4.8 describes measures to be taken to achieve the set targets.

In Slovenia, the rules of conduct and other conditions for preventing or minimising the adverse impact of the generation of waste oils are laid down in the Decree on Waste Oils. On the day this decree entered into force, the Decree on Disposal of Waste Oils (OGRS, 25/08) ceased to be valid. Under the Decree on Waste Oils, a producer of waste oils must capture and separately collect waste oils. A producer of waste oils that is a legal entity or sole trader whose activity generates waste oils must temporarily store captured waste oils in containers, reservoirs, barrels or other containers separately from other waste, thereby meeting the requirements concerning protection of the environment and human health under the Decree of Waste.

A collector may collect waste oils if it has a certificate of entry in the register of waste collectors under the Decree on Waste, and must receive waste oils from producers of waste oils and distributors. Prior to reception at the reception point or collection centre, it must take at least one sample per 200 tonnes of waste oil in order to measure the content of water and polychlorinated biphenyls and polychlorinated terphenyls (hereinafter: PCBs). If the results of the measurements show that the waste oils should
be classified as waste PCBs, it must refuse to receive them and notify a competent inspector of this. It must enclose details on the waste oil producer whose waste oils it refused to receive with this notification. A waste collector must keep records of waste collection, the content of the records is prescribed by the Decree on Waste and this decree. It must submit a report on such waste collected every year to the ministry responsible for environmental protection under the Decree on Waste. The content of the report is prescribed by the Decree on Waste and this decree.


The regulation on the separate collection and treatment of waste oils is set out in Articles 5 and 6 of Royal Decree 679/2006 of 2 June:

Producers of waste oils must fulfil the following obligations:
To store the waste oils under appropriate conditions, particularly avoiding mixing with water or other non-oily waste; mixing with other oily waste shall also be avoided if this impedes the correct management of the waste oils.
To have facilities that allow for the conservation of waste oils until collection, and which are accessible to the vehicles responsible for collection.
To prevent waste oil repositories, including those underground, from having harmful effects on the land.
In general, the following activities are prohibited:
Any dumping of waste oil into surface or ground water, in any area of Spanish seas and in the sewage or waste water removal systems.
Any dumping of waste oil, or of waste arising from the treatment thereof, onto land.
Any treatment of waste oil that causes air pollution in excess of the level set out in the legislation on protection of the atmospheric environment.
Producers of waste oils that generate over 500 litres per year, as well as managers of waste oils, must keep a register with indications regarding quantities, quality, origin, location and dates of delivery and receipt. Keeping this register, and the registration thereof in the pertinent Autonomous Community, shall exempt these producers from fulfilment.

..."

Pursuant to Article 11(1) of Law 10/1998 of 21 April, producers and holders of waste oils shall be obliged to ensure the delivery of such oil to a duly authorised
manager for the correct management thereof, unless they manage such oil themselves, with the pertinent permit.

For the purposes of the provisions of the paragraph above, producers and holders of waste oils may deliver them directly to a waste manager authorised for the management thereof, or to deliver such oil to industrial oil manufacturers. In the latter case, the manufacturers shall be obliged to take charge of the waste oils and to pay the market price for them, if positive, up to a quantity of waste oil calculated taking into account the average rates of generating waste oils derived therefrom.

Once the manufacturers have taken charge of the waste oils, in accordance with the provisions of the paragraph above, they shall be considered producers of these waste oils, and they must likewise ensure that such oils are managed in accordance with the order of preferences set out in Article 7 and that the environmental objectives in Article 8 are achieved.

The delivery of waste oils to authorised managers must be carried out fulfilling the requirements of notification and identification and the other requirements set out in this Royal Decree and in the legislation on waste.

The delivery of waste oils from producers to waste oil managers, or of producers between one another, must be formalised in a ‘control and monitoring document’, which must contain at least the details indicated in Annex II.

Collection and transport operations for waste oils must be carried out by managers.”

In Sweden all waste oil types are denoted as hazardous waste in the waste list (chapter 13) and shall be handled and treated accordingly. The entries for oil waste are based on both application and constituent base oil. For example, worn waste engine, gear and lubricating oils have separate entries under subchapter 13 02 and oil residues from transport and storage tank cleaning have separate entries under subchapter 16 07 in the list of waste (annex 4 to the Ordinance on waste).

Different types of hazardous waste shall according to the mixing prohibition (section 16 of the Ordinance on waste not be mixed. One of the reasons for this regarding worn waste engine and lubricating oils is to obtain a good oil fraction suitable for regeneration. According to chapter 2 and 15 of the Environmental Code, waste oils are ensured to be treated in accordance with article 4 and 21 of Directive 2008/98/EC.

There are few operators in Sweden that collect and pre-treat/treat waste oils. Usually treatment of Swedish waste oil is finally made (regeneration) in foreign plants. Waste oils are moreover disposed of through reprocessing and then used as fuel mainly in cement and lime kilns.

The United Kingdom adopts a voluntary collection scheme for waste oils whereby operators can charge to collect waste oil, process it and then resell it. Such operators require a permit to collect and transport the oil. The oil can either be burnt or regenerated. Waste Oils fall under the auspices of the Hazardous Waste (England and
Wales) Regulations 2005, the Hazardous Waste Regulations (Northern Ireland) 2005 and the Public Health Act in Gibraltar. In Scotland, controls over collection and treatment of waste oil fall under the Environmental Protection Act 1990 (EPA 1990) and Waste Management Licensing (Scotland) Regulations 2011 regulation 15. The Waste (Scotland) Regulations 2011 regulation 2 (4) amends the EPA 1990 in respect of imposing a duty on waste brokers or dealers to ensure waste oil is collected separately where technically feasible.

3.11.2 Mixing of Waste Oils

Question (12) (ii): Has the Member State taken measures to prevent mixing of waste oils with different properties or waste oils with other wastes or materials? What measures?

Article 21 (1) (c) which is the relevant article for this question states that, where technically feasible and economically viable, and where doing so would impede its treatment, waste oil should not be mixed with waste oil of different characteristics, nor should it be mixed with other types of waste. Question (12) (ii) asks what measures Member States have put in place to ensure that such mixing does not occur.

24 Member States provided accounts of the measures they have taken to prevent the mixing of waste oils. The detailed replies are summarised below.

In addition the United Kingdom only listed specific measures for Scotland, with the reply otherwise stating that the mixing of waste oils is covered by the general ban on the mixing of hazardous wastes.

An example of good practice comes from Finland, which reported that only properly segregated waste oils are collected free of charge. The collection organisation provides instructions to waste oil producers on the ways in which oils must be separated, and the threat of a charge for failing to follow these instructions provides a strong incentive against mixing.

Member States replies are summarised below:

In Austria, pursuant to Section 16, subsection 3 AWG 2002 the incorporation of substances not present in the oil due to the nature of the oil is unacceptable. Similarly, the incorporation of halogens, PCBS or PCTS and other hazardous waste shall be prohibited. For recycling, only aggregates necessary for technological reasons may be added.

In Bulgaria, with a view to preventing and limiting environmental pollution, the Regulation on Waste Oils and Waste Petroleum Products prohibits (Article 4):

1) the mixing of waste oils and waste petroleum products with other wastes, as well as the mixing of waste oils of different characteristics, which would impede their recovery, except in the cases where this is technically unfeasible and economically unviable; and

2) the mixing of waste oils and waste petroleum products with fuels, cooling fluids, braking fluid, solvents and other substances and materials.
The Regulation also establishes requirements for persons collecting, storing and transporting waste oils, including:

1) Waste oils must be collected and stored separately by type and code and name, according to the list of waste, or in a manner allowing their regeneration, recovery and/or safe disposal.

2) Waste oils and waste petroleum products with a content of polychlorinated biphenyls exceeding 0.005 % by mass must be collected, stored and transported separately from other oils and waste petroleum products.

3) Waste oils and waste petroleum products with a content of chlorine exceeding 1 % by mass must be collected, stored and transported separately from other oils and waste petroleum products.

In **Croatia**, under Article 57(1) of the Sustainable Waste Management Act (OG 94/13), the purpose of the waste oil management system is to ensure the separate collection of waste oils. Moreover, under Article 57(2) of the Sustainable Waste Management Act, holders of waste oils of different categories, if technically feasible, shall not mix such oils and shall not mix them with other types of waste or substances if such mixing prevents and/or renders their treatment impossible. Under Article 7 of the Rules on Waste Oil Management, the mixing of waste oils of different categories, mixing with other waste and mixing with hazardous waste containing polychlorinated biphenyls/polychlorinated terphenyls is prohibited. Only the mixing of Category I and Category II waste oils handed over to an authorised collector for dispatch for thermal treatment is allowed. In accordance with Article 8 of the Rules on Waste Oil Management, containers for waste lubricating oils must be impermeable and closed and must be marked with a label containing the prescribed waste oil code and a label indicating the waste oil category.

In **Cyprus**, no specific measures were taken other than the obligation of the producer to keep the waste oil separately from other substances and wastes. Additionally, a series of educational seminars was carried out to the responsible original waste producer in order to inform them how to keep waste oils separately from other waste using also the proper labelling. Also regular inspections took place to the waste producers facilities and inspections to the treatment facilities. If there was a problem during the inspection a fine was imposed or sampling of the waste took place.

In the **Czech Republic**, according to Section 29 (1) c) of the Waste Act the producer of waste oils and the authorised person that disposes of waste oils must ensure that during the treatment of waste oils these oils are not mixed together or mixed with substances containing PCBs or with other hazardous waste. In Section 13, 14 and 15 of Decree No 383/2001, on the details of waste management, technical requirements are stipulated for the management of waste oils, while Annex No 14 to the Decree stipulates a list of substances with which waste oils must not be mixed.

In **Denmark**, according to the agreement with the two organisations, oil that is collected must be capable of regeneration. The organisations have set out requirements concerning the types of oil they will accept, as well as thresholds for concentrations of problematic substances (chlorine, PCB, etc.), thereby ensuring that no oils that cannot be regenerated are mixed.
In **Estonia**, according to Section 651(4) of the Waste Act, where this is technically feasible and economically viable, waste oils of different characteristics are not mixed and waste oils are not mixed with other kinds of waste or substances, if such mixing impedes their treatment.

In **Finland**, the company responsible for collection of oil waste (Lassila & Tikanoja Oyj) gives instructions to the waste producers on the separate collection of different types of oil wastes. According to these instructions, the waste oils should be separated into following categories:

- black oils (motor oils or transmission oils);
- bright oils (hydraulic oils, gear oils, compressor oils, circulation lubrication oils and turbine oils) which do not contain PCBs; and
- vegetable oils.

Correctly separated waste oils of good quality are received and transported free of charge from the customer by the waste management company. This acts as an intensive to keep different types of waste oils separate. The mixing of oils with other wastes or materials is prohibited by the hazardous waste mixing ban (see reply to question 11(2)).

In relation to the Åland Islands, according to 6 § in The Waste Regulation waste oils should be collected separately if it is technically possible. Waste oils with different properties must not be mixed and waste oils must not be mix with other types of waste or substances, if such mixture will prevent the further treatment.

In **Germany** there are four waste oil categories and their mixing is prohibited except in exceptional circumstances (and then only between three of the categories).

In **Greece**, separate collection of waste oils is explicitly foreseen by the provisions of PD 82/2004. It should be noted that within permits covering activities leading to the production of waste oil, there are terms prohibiting the mixing of waste oils with other waste or materials. Furthermore, in case of signs of contamination of waste oils by other substances, spot checks and sample analysis are anticipated in the collection centres and in the entry of regeneration installations, in order to prevent the contamination of wider waste oils’ quantities (article 5, PD 82/2004). Finally, it is pointed out that within the specific identification document which accompanies waste oils during their collection and transport from the collection centres to the regeneration installations the waste producer declares that the waste oils have not been mixed with foreign substances.

In **Hungary**, Act XLIII of 2000 generally stipulated a ban on the mixing of hazardous wastes with other wastes or materials without the permit of the environmental authority. As a general provision for hazardous wastes, Act CLXXXV of 2012 on Waste bans the mixing or dilution of hazardous wastes with other wastes or materials without the permit of the environmental authority. This Act also stipulates the criteria for permitting the mixing and dilution of hazardous wastes. As regards waste oils, it also bans the mixing of waste oils with oils of different properties, or with other wastes and materials, if it impedes the treatment of waste oils.

In **Ireland**, under the conditions of the Waste Licenses issued for the treatment installations, Waste Oils arising from industrial sources, tank and interceptor cleaning
operations, bring stations and oil-spill clean-up operations can only be accepted only for reprocessing at the Plants once they have satisfied the Waste Oils Acceptance Procedures.

In **Italy**, in accordance with Article 216 of Legislative Decree No 152/2006, the temporary storage, collection and transport of waste oils are carried out so as to keep separate at all times, provided it is technically feasible, the types of waste oils to be destined for different treatment processes. However, waste mineral oils may not be mixed with other types of waste or substances.

In **Latvia**, pursuant to Cabinet Regulation No 485 of 21 June 2011 “Procedure for the Management of Certain Types of Hazardous Waste”, the manager or holder of waste oils must ensure separate collection of waste oils where this is technically feasible and meets the conditions listed in the category A or B pollution permit or the waste management permit.

**Lithuania**, has taken measures to prevent mixing of waste oils with different properties. Pursuant to Article 121(1)(3) of the Law on Waste Management (Official Gazette, 1998, No 61-1726; 2002, No 72 3016; 2011, No 52-2501; 2013, No 52-2501), mixing of waste oils with different properties as well as mixing of waste oils with other wastes or materials is prohibited if such mixing impedes their treatment. In accordance with the Code of Administrative Offences, inadequate management of waste oils incurs fines or withdrawal of the hazardous waste management licence.

Legal persons who use oils and whose activities are not related to vehicle maintenance and repair must collect waste oils resulting from their activities, store them in line with the requirements laid down in legislation, not mix them with other waste or materials and deliver such waste to a waste manager authorised to manage such waste.

**Luxembourg** did not provide a reply to this question beyond its reply as detailed in Section 3.11.1

In **Malta**, permits issued by the competent authority for the collection, transport, storage and management of waste oils specifically state that waste oils with different properties are not to be mixed and waste oils are not to be mixed with other kinds of waste or substances. This is in accordance with regulation 18 laid down in The Waste Regulations (LN184/11; as amended).

In **Poland**, in accordance with the Act on Waste, in cases where this is technically possible and economically viable waste oils with different properties should not be mixed if such mixing hinders treatment. This ban also applies to the mixing of waste oils with other waste or substances. Moreover, waste oils may not be mixed with other hazardous waste, including waste containing PCBs, during the collection or storage if the level of specific substances exceeds the permissible level.

The mixing of waste oils with other hazardous waste, including waste containing PCBs, during the collection or storage if the level of specific substances in waste oils exceeds the permissible level is subject to imprisonment or a fine.

**Portugal** has adopted legislative and technical measures. With regard to the legal framework, the ban on mixing waste oils with different properties or with other wastes is referred to both in the specific legislation on the management of waste oils (Decree...

It should be noted that the role of supervising and inspecting the producers of waste oils was strengthened, the activities being aligned through the definition in that regard of administrative offences of an environmental nature, in both the laws referred to above. As regards technical measures, a technical note containing requirements for the storage of waste oils was drawn up in 2011. The strategies and policies outlined in that regard by the APA, I.P., are followed up by SOGILUB, which also lays down technical measures to prevent undesirable mixing which makes the proper treatment of the waste oil produced impossible, in particular technical specifications for the waste oils to be collected from their producers.

In Romania, the legal framework prohibits:

- mixing different types of used oil and/or used oil with other types of oils that contain polychlorinated biphenyls or other similar compounds and/or other types of hazardous chemical substances and preparations;
- mixing used oil with other substances that contaminate oils; and
- mixing used oils with diesel, pyrolysis oil, unrefined P3 oil, solvents, P-type fuels and oil residues, as well as using such mixture as fuel.

In Slovakia, dilution and mutual mixing of individual categories of hazardous waste or mixing hazardous waste with waste other than hazardous for the purposes of reducing the concentrations of present harmful substances is banned pursuant to sect. 40(1) of the Waste Act. Pursuant to sect. 40(2) of the Waste Act, mixing of individual categories of hazardous waste or mixing hazardous waste with waste other than hazardous may only be carried out if it is needed for increasing the safety during waste recovery or disposal and if such is compliant with the granted permit. Pursuant to sect. 42(6) of the Waste Act, waste oils may be collected, transported, recovered or disposed of if only separated from other waste types.

In Slovenia the same prohibitions on mixing apply to waste oils as apply to other hazardous waste.

In Spain to prevent mixing waste oils with other wastes or materials, a specific provision for waste oils has been included in Article 18(2) (see reply to section 11.3 of this Implementation Questionnaire): Where technically feasible and economically viable, waste oils of different characteristics shall not be mixed with one another or with other waste or substances, if such mixing impedes the treatment thereof.

Furthermore, Article 5(1)(a) of Royal Decree 679/2006 of 2 June regulating the management of waste industrial oils obliges producers of waste oils to store the waste oil under appropriate conditions, particularly avoiding mixing with waste or with other non-oily waste; mixing with other oily waste will also be avoided if this impedes the correct management of the waste oils.

In Sweden the definition of waste oil according to the Ordinance on waste is either a mineral, synthetic or vegetable lubricating oil; oil that has been designed for an industrial purpose; fuel oil or oily fuels (section 9).
In the Ordinance on waste there are specific paragraphs regarding handling of waste oils. This includes that the collection of waste oil shall be made separately from other waste (section 30), that a waste oil that is an insulating oil is kept separate from other insulating oils and other waste oils until the level of PCBs in the insulating oil have been determined (section 31) and in addition to section 30 and 31, to the extent that’s technically feasible and economically reasonable, the person handling the waste oil is to ensure that waste oil is not mixed with other kinds of waste oil, or mixed with other wastes or substances in a way that complicates the treatment of waste oil (section 32).

In the United Kingdom the UK has taken no specific measures to prevent the mixing of waste oils with different properties or waste oils with other wastes or materials. This is covered by the mixing ban for hazardous waste as expressed in the relevant Hazardous Waste Regulations for England, Wales and Northern Ireland and the Public Health Act in Gibraltar. In addition, regulation 13(9) of the Pollution Prevention and Control Regulations (Northern Ireland) 2013 states:

1) A permit which authorises any activity relating to waste oils shall contain conditions ensuring that, so far as technically feasible and economically viable—
   a. waste oils having different characteristics are not mixed; and
   b. waste oils are not mixed with other kinds of waste or substances, if such mixing would impede their treatment.

2) In paragraph (9), “waste oils” and “treatment” have the same meanings as in Directive 2008/98/EC.

In Scotland, the Waste (Scotland) Regulations 2011 regulation 7(4) amends the Pollution Prevention and Control (Scotland) Regulations 2000 ensuring that waste oils are not mixed in line with the Directive requirements.

3.11.3 Additional Measures

Question (12) (iii): What additional measures, such as technical requirements, producer responsibility, economic instruments or voluntary agreements does the Member State apply for the purpose of separate collection of waste oils and their proper treatment?

Article 12 (2), which is the relevant article for this question, does not impose a legally binding requirement but rather allows that Member States may, according to their national conditions, apply additional measures to achieve the goal of separate collection of waste oils. Question (12) (iii) asks if any such additional measures have been implemented.

19 Member States have reported that additional measures for the separate collection and proper treatment of waste oils have been implemented. The remaining six Member States reported that they have not adopted additional measures and these are: Cyprus, Estonia, Ireland, Italy, Malta and Slovenia.

An example of good practice comes from Latvia, which reported that it has a tax on environmentally harmful goods. This Natural Tax Law makes harmful goods subject to manufacturing or distribution restrictions and specific waste management requirements, and taxes them accordingly. Additional measures which Member States have
implemented include: a voluntary collection scheme whereby participants pay a fee in advance as reported by Denmark; economic producer responsibility measures reported by Greece, which states that producers and importers of oils have to pay in advance for the waste management of the product; and technical requirements on the facilities treating waste oils that Germany has reported it has established.

**Member States replies are summarised below:**

In Austria, because of the normalised mixing ban for collectors of waste oils, various grades of oils require sampling and analysis by collectors. The AWG 2002 contains special provisions for the disposal of motor oils and the proper handling of engine oil. In accordance with section 12 AWG 2002 commercial supplies of engine oils are distributed to final consumers by holders of gas stations, motor mechanics, holders of machinery, and by persons supplying motor oils wholesale under the condition of a proper withdrawal of used motor oils and oil filters.

In Bulgaria, under Article 7 of the Regulation on Waste Oils and Waste Petroleum Products, persons placing oils on the market are responsible for their separate collection, storage, transport and recovery, as well as for their environmentally sound disposal where the waste oils cannot be recovered. Where the persons placing oils on the market cannot be identified, the responsibility is borne by the distributors, including the persons selling to end-users. The Regulation also establishes an obligation for persons selling oils for motor vehicles to end-users to provide information, at no charge to the end-user, regarding the oil replacement points and the possible health hazards and the risk posed by mishandling. A quantitative target for recovery of waste oils is set as well: the Regulation provides that persons placing oils on the market are responsible for the recovery of waste oils in a quantity of not less than 40% of the oils placed on the market in the current year.

The Regulation prohibits the dumping, abandonment or other form of unauthorised disposal of waste oils and waste petroleum products in a way leading to soil pollution; the treatment, including the incineration of waste oils and waste petroleum products in a way leading to exceeding the established limit values for air emissions of noxious substances and/or installations non-conforming to the requirements of the ZUO and the Regulation for the conditions and requirements for the setting-up and operation of incineration and co-incineration facilities; the delivery of waste oils and waste petroleum products to persons who do not hold a permit to carry out waste-related operations.

In Croatia, under Article 57(1) of the Sustainable Waste Management Act, the purpose of the waste oil management system is to ensure separate collection of waste oils. Moreover, Article 57(3) of the Sustainable Waste Management Act provides that, if the regeneration of waste oils is technically feasible and economically viable in the territory of the Republic of Croatia, any export of waste oils for the purpose of their treatment by incineration or co-incineration shall be prohibited. Also, under Article 57(4) of the Sustainable Waste Management Act, conditions for the assessment of the technical feasibility and economic viability of waste oil regeneration and other conditions of waste
oil management shall be laid down by the Minister in rules governing waste oil management.

Under Article 3 of the Rules on Waste Oil Management, the 'waste oil disposal charge' is a charge payable by oil producers for placing fresh oils on the market in the Republic of Croatia, irrespective of the manner of sale, i.e., either upon production or importation, and whether for their own purposes or the purposes of another. This charge serves to cover the costs of waste oil management and is payable to the FZOEU. Persons liable to the waste oil disposal charge need not pay the charge when importing base fresh oils that are solely used as necessary raw material for the production of new fresh oils in the Republic of Croatia and the production of other products that do not generate waste oils after use.

In **Cyprus** no additional measures were taken.

In the **Czech Republic**, everybody who treats waste oils must have consent to manage waste according to Section 14 (1) of the Waste Act. In addition, Section 38 of the Act stipulates the extended responsibility of the producer and introduces a take-back system for waste oils, which are stipulated in Annex No 14 to Decree No 383/2001, on the details of waste management. Installations for the collection or purchase of waste oils and their rules of operation must be equipped with tanks for the separate receipt of different types of waste oils (separate tanks), equipped with an indication system to prevent over-filling, and equipment for the receipt and release of waste oils, including mechanical filtration.

In **Denmark**, a voluntary agreement has been established and a fee is collected as part of this scheme with the aim of promoting separate collection and correct processing, as it is paid for in advance.

In **Estonia**, waste oil is hazardous waste and subject to collection and management in the same way as other hazardous waste. No additional technical requirements, producer responsibility, economic instruments or voluntary agreements have been applied.

In **Finland**, pursuant to Waste Oil Charge Act 894/1986 producers and importers of lubricating oils are obliged to pay the waste oil charge, which is 5, 75 cents per kilogram (Section 4). The waste oil charge shall be paid on lubricating oils and greases classified under Customs Tariff items 2710 19 71 - 2710 99 00, 3403 19 10 - 3403 19 99 and 3403 99 10 - 3403 99 90. The waste oil charge shall also be paid on transformer and circuit breaker oils, cutting, cleansing and mould release oils and hydraulic oils included in the items referred above (Section 2). Funds accruing from the waste oil charge may be used for covering expenses arising from waste oil and its collection, transport, storage and treatment including regeneration. They may also be used to cover the expenses arising from the cleaning up of oil-contaminated soil and groundwater (Waste Oil Charge Act 894/1986, Section 7). Detailed provisions on the use of funds are laid down in the Government Decision 1191/1997. The indemnities are granted by the Ministry of the Environment. The indemnities are paid on account of real costs, excluding e.g. sales revenues of pre-treated oil.
Based on a bidding competition, from the beginning of the year 2013 the Ministry of the Environment has made an agreement with the waste management company Lassila & Tikanoja Oyj on the collection and treatment of oil waste. Concerning the Åland Islands the reply is identical as from Finland as it is the same system.

In Germany, plants for the treatment, energy recovery or disposal of waste oils or other waste must be, in accordance with § 4 of the Federal Pollution Control Act, approved for these activities. The approval of sites is the remit of the competent state authorities.

In Greece, the PD 82/2004 basically introduces extended producer responsibility, namely the producer’s obligation to organise oil collection, transport, storage and treatment, giving priority to the waste oil regeneration. Following the provisions of PD 82/2004, the oils importers / producers are obliged to organise systems of alternative management, in which they pay a certain contribution in proportion to the quantities they put in the market, in order to cover the cost of alternative management. Until today, one system of alternative management “ELTEPE SA” has been approved (it was recently renamed ENDIALE). Waste oil regeneration facilities in Greece, in order to be environmentally permitted, submit Environmental Impact Assessment (EIA) to the competent authorities (Ministry of Environment, Energy and Climate Change, Decentralized Administrations). The competent authorities evaluate several parameters in order to check whether the EIA are in line with legislation’s requirements and particularly whether specific measures are proposed to protect the environment. Provided that all conditions are fulfilled, the environmental permit is drafted and suggested for approval, in which the terms and restrictions foreseen by the PD 82/2004, as well as the current legislation concerning the hazardous waste management (Joint Ministerial Decision 13588/725/2006), are included.

In Hungary, as a general waste management provision, Act XLIII of 2000 stipulated that only those wastes can be disposed of for which the technical and/or economic conditions for material recovery or use as an energy source are not yet available, or for which the cost of recovery is disproportionately high in comparison to the cost of disposal. Decree No 4 of 23 February 2001 of the Minister for the Environment specified that priority should be given to the recovery of waste oils by regeneration, provided this is technically and economically feasible. However, if it is impossible to recover waste oils, then they should be disposed of via incineration.

Pursuant to Act LXXXV of 2011 on the Environmental Product Fee (‘the AEPF’), certain mineral oil products are products subject to product fee. However, according to the AEPF, no product fee is payable when placing on the market products subject to product fee which are produced from other mineral oil products that have become waste in Hungary by process R9 defined in the Waste Management Act. Reimbursement of paid product fees for other mineral oil products can be requested in case of the material recovery of the mineral oil product. This provision supports the material recovery of waste oils.

Ireland has not taken any such additional measures.

Italy did not provide a reply to this question.
In **Latvia** lubricating oils are environmentally harmful goods according to the Natural Resource Tax Law, which specifies that environmentally harmful goods are goods subject to certain manufacturing or distribution restrictions or special waste management requirements if they have or may have a negative impact on the environment, human life or health during their circulation cycle, and so are taxed accordingly.

Pursuant to the Law on Waste Management, **Lithuania** has laid down the obligations of oil producers and importers, which are defined in the Law on Waste Management (Official Gazette, 1998, No 61-1726; 2002, No 72 3016; 2011, No 52-2501; 2013, No 52-2501):

1) to register in accordance with the procedure established by the Minister for the Environment;
2) to keep the records of the oils supplied to the internal market of the Republic of Lithuania and submit accounting reports in accordance with the procedure established by the Minister for the Environment;
3) to educate and inform the public of the environmental risks posed by waste oils and their management options in accordance with the procedure established by the Minister for the Environment. Such information may be provided in the company’s sales documents, transfer documents, promotional literature for the oil or its products as well as electronic means of information; and
4) if waste oils have no or a negative market value, to reimburse the costs of collection and transportation of waste oils for management in the territory of the **Republic of Lithuania** for companies providing vehicle maintenance and repair services or waste managers, or to collect waste oils, free of charge, from companies providing vehicle maintenance and repair services, to transport these waste oils and deliver to the managers of waste oils the amount of waste oils that does not exceed the amount of oils supplied by the oil producer and/or importer to the internal market of the **Republic of Lithuania**.

Oil producers and importers have the right to fulfil the obligations established by the Law on Waste Management:

1) individually: by becoming waste managers authorised to manage waste oils or by concluding contracts with the waste managers authorised to manage waste oils; or
2) collectively: by establishing an Organisation referred to in the Law on Waste Management and/or by becoming members of such an Organisation and authorising it to organise the collection of waste oils from companies providing vehicle maintenance and repair services and their transportation as well as to carry out all or some of the obligations established for them by this Law, or by authorising the Organisation to organise the collection of waste oils from companies providing vehicle maintenance and repair services as well as to carry out all or some of the obligations established by this Law on a contractual basis, without becoming members of the Organisation.

Managers of waste oils must:
1) collect waste oils separately, not mix them with other wastes or materials and manage them in accordance with the waste management priorities in a manner that is safe for the environment and public health, by applying the best available production techniques for the management of waste oils;

2) submit the documentary proof of economically substantiated costs for the collection of waste oils from companies providing vehicle maintenance and repair services and their transportation upon contacting oil producers and/or importers concerning the reimbursement of costs specified in the Law on Waste Management.

In Luxembourg, technical requirements for the separate collection and storage are set as part of the operating licenses of classified establishments. Furthermore, the Government has implemented, through the "SuperDrecksKëscht fir Betriever", an advisory system for companies with the aim of ensuring ecological waste management. Achieving this goal is recognised with an ISO 14024 certified quality label which is.

In Malta, no such measures were in place during the reporting period, however Schedule 7 of The Waste Regulations (LN184/11; as amended) provides that the competent authority may introduce legislative measures to ensure that producers of oils, use existing or set up systems, individually or collectively, or both, for the collection and recovery of waste oils.

In Poland, in accordance with Article 90 of the Act on Waste, waste oils must be collected separately (unless this is not technically possible). Waste oils should be treated in line with the waste hierarchy and requirements for the protection of human life and health and the environment so as to avoid adverse impact on rural areas or places of particular importance, especially environmental or cultural (Article 91 of the Act on Waste). The detailed method for handling waste oils is set out in the Regulation of the Minister for Economy and Labour of 4 August 2004 on Detailed Method for Handling Waste Oils (Journal of Laws No 192, item 1968) and the Act of 11 May 2001 on Entrepreneurs’ Obligations regarding Management of Certain Types of Waste and on the Product Fee (Journal of Laws of 2007, No 90, item 607, as amended), which imposes on operators placing waste oils on the domestic market, inter alia, an obligation to subject waste to recovery, and in particular to recycling. The Environmental Protection Inspectorate carried out relevant inspections. For example, an inspection of vehicle dismantling facilities and vehicle collection facilities falls within plant inspection risk category I and is carried out once a year.

In Portugal, SOLIGUB has adopted additional measures, including:

1) Establishment of prerequisites in the selection of operators tendering for waste management carrying out collection/transportation, storage and treatment, to ensure that its waste management operators have competencies areas including human resources, insurance, social responsibility, IT/communications, technical resources, and quality and environmental certification (i.e. ISO and EMAS).

2) Definition of technical specifications (currently set out in the SOGILUB licence) which the waste oil must meet in order to be treated, regenerated, or recycled.
3) Definition of technical specifications (currently set out in the SOGILUB licence) which the waste oil must meet as a raw material for the production of base oils derived from the recovery – regeneration operation.

4) Implementation of a collection network for individuals (i.e. citizens).

5) Development of research and development projects in the field of waste lubricating oils management.

Other measures include the creation of a helpline to provide clarifications, development of an institutional newsletter presenting scientific and technical information and publicising developments in legislation and other issues on the waste management agenda, awareness raising and training with producers of waste oils and waste management operators to give them the capability to prevent the mixing of waste oils with different characteristics and the mixing of waste oils with other waste or other materials.

In Romania, used oil management is governed by Government Decision no 235/2007. This piece of legislation includes obligations both for the business operators that sell fresh oil, and for business operators authorised for collecting and treating such waste.

Additionally, for the period covered by present report, Government Emergency Ordinance no 196/2005 on the Environmental Fund, with subsequent amendments and supplements, sets forth that the business operators that sell on the domestic market oils subject to Government Decision no 235/2007 on used oil management and that do not meet their annual used oil management obligations set forth below, have to pay a 2 lei/l fee to the Environmental Fund Administration for the difference between the amounts corresponding to the annual management obligations set forth below and the amount of managed used oils.

The stages of the annual used oil management obligation were 40% of the amount of oil placed on the domestic market for 2011, and 60% of the amount of oil placed on the domestic market for 2012.

In Slovakia, pursuant to sect 8(3) of the Waste Act, authorisation granted by the Ministry shall be required in order to recover or dispose of waste oils. Provisions of sect.8(5) of the Waste Act state that authorisation of recovering or disposing of waste oils that includes regeneration of waste oils or their recovery as fuel pursuant to item R1 in Annex 2 includes, besides technological, material and personnel aspects, also the need to adopt environment and human health protection measures; in the case of installations permitted and operated under special regulations, the employed technology must correspond to the best available technical equipment.

In Slovenia, no such measures were taken during the reporting period.

In Spain Article 3(2) of Royal Decree 679/2006 of 2 June regulating the management of waste industrial oils has established that extended producer responsibility applies to industrial oils. In accordance with this article, manufacturers of industrial oils are obliged to ensure the management of the waste oil generated, pursuant to the Royal Decree, as well as to bear the total cost of the operations required for this management.
Moreover, Articles 11, 12 and 13 of the abovementioned Royal Decree regulate the collective application of this extended producer responsibility.

In **Sweden** there are a few operators in Sweden that collect and pre-treat/treat waste oils but there is for example no producer responsibility in place for (waste) oil as product group. Since not all waste oil is suitable for regeneration, the trade organization for fuel and lubricants (Swedish petroleum and biofuels institute), recommend its members such as petrol stations and repair shops to separate different types of worn waste oils (e.g. waste engine, gear and lubricating oils) from other hazardous waste or waste oils.\(^{87}\)

An example of a voluntary agreement that can be mentioned in this context is the collaboration between Stena Recycling and Svenska Shell (Shell Lubricants) regarding recycling of hazardous waste and waste oils covering vehicle repair shops nationwide.\(^{88}\)

The **United Kingdom** has an informative Oil Care Campaign, run by the Competent Authorities, which encourages collection and recycling of waste oils for recycling. Northern Ireland has also produced a number of information leaflets. In Scotland, the Scottish Environment Protection Agency has produced guidance on the production of fuel oil from waste.

### 3.11.4 Regeneration Requirements

**Question (12) (iv): Please further indicate whether waste oils are subject to requirements of regeneration in the Member State and whether the Member State restricts the trans-boundary shipment of waste oils from its territories to incineration or co-incineration facilities in order to give priority to the regeneration of waste oils.**

**Article 21 (3),** which is the relevant article for this question, concerns the regeneration of waste oils—which is the waste oil equivalent of recycling—and states that where waste oils are subject to regeneration requirements in national legislation, Member States may prescribe that waste oils shall be regenerated provided doing so is technically feasible. Furthermore in order to achieve this, Member States may restrict—in line with the Waste Shipping Regulations\(^{89}\)—the trans-boundary shipping of waste oils to incineration or co-incineration facilities. **Question (12) (iv)** asks whether Member States have implemented regeneration requirements for waste oils, and whether they have restricted their trans-boundary shipment.

**All reporting Member States (25)** provided at least some details on whether they have an introduced such additional regeneration requirements. These replies are detailed below,

\(^{87}\) [http://spbi.se/blog/faktadatabas/artiklar/spillolja/](http://spbi.se/blog/faktadatabas/artiklar/spillolja/)


Best practice is found in **Luxembourg**, which reported that regeneration is the primary method of treating waste oils, and where necessary objections to the cross border movement of oils for incineration may be lifted in order to facilitate this. Also, **Denmark** has reported that it has enshrined the priority of regeneration in its Waste Order, and reviews applications for waste exports to ensure that waste oils can be regenerated in this way.

**Member States replies are summarised below:**

In **Austria**, waste oils are primarily recycled if it is technically possible to produce a base oil from the waste oil, and this in light of the respective quantities, the costs of transport routes and general economical reasonability.

In **Bulgaria**, the Regulation on Waste Oils and Waste Petroleum Products expressly states (Article 3) that priority is given to the recovery of waste oils through regeneration in the cases where this is technically and economically feasible. Accordingly, when this is technically and economically unfeasible, waste oils are incinerated with energy recovery. The Regulation allows disposal of waste oils solely in the cases where regeneration or incineration with energy recovery is technically and economically unfeasible.

**Bulgaria** has not availed itself of the opportunity to restrict the transboundary shipment of waste oils to incineration or co-incineration facilities.

In **Croatia**, under Article 57(3) of the Sustainable Waste Management Act, if regeneration of waste oils is technically feasible and economically viable in the territory of the **Republic of Croatia**, any exports of such waste oils for the purpose of their treatment by incineration or co-incineration shall be prohibited. Conditions for the assessment of technical feasibility and economic viability of waste oil regeneration and other conditions of waste oil management shall be laid down by the Minister in rules governing waste oil management, as required by Article 57(4) of the Sustainable Waste Management Act.

In **Cyprus**, there is no regeneration and no transboundary shipment of waste oils. The waste oils are refined to remove heavy metals and other ingredients, in licensed treatment facilities producing a secondary type of fuel similar to LFO (light fuel oil) which is used in cement kilns.

In the **Czech Republic**, the producer of waste oils and the authorised person that disposes of waste oils must, according to Section 29 of the Waste Act, preferentially ensure the regeneration of waste oils, and ensure the incineration of waste oils in accordance with the requirements of Section 22 and Section 23 of the Act if regeneration is not possible, and ensure the storage or disposal of waste oils in accordance with the requirements of this Act and other legal regulations if neither regeneration nor incineration are possible for technical reasons. The qualitative requirements that waste oils intended for regeneration must fulfil are stipulated in the technical standard ČSN 656690 – Used petroleum derived oils intended for regeneration. The **Czech Republic** does not restrict the transboundary shipment of oils with the objective of expediting regeneration.
Denmark has implemented a provision in the Waste Order which requires undertakings that produce waste oil to ensure that a high proportion of their waste oil is handled with a view to regeneration to base oil by entering into agreements with undertakings that collect or process with the aim of regeneration. By processing applications for waste exports, Denmark ensures that waste oil that is suitable for regeneration is exported for processing in this way.

In Estonia, according to Section 651(5) of the Waste Act, upon recovery of waste oils, priority shall be given to the regeneration of waste oils if this is technically feasible, economically viable and if other recovery operations do not ensure a better overall environmental result taking account of the provisions of Section 221(2) of the Act. No restrictions have been placed on the transboundary shipment of waste oils.

Finland has not introduced any additional legislative requirements for recycling of oil wastes. However, in the contract between the Ministry and L&T emphasis is on the regeneration of waste oil. The minimum amount to be collected per year is 20,000 tonnes (calculated as < 10% of water). Most of it shall be regenerated to new oil products. We do not have additional restrictions concerning the export of waste oils to energy recovery, besides the stipulations of the EC Waste Shipment Regulation (No. 1013/2006).

Concerning the Åland Islands the reply is identical as from Finland as it is the same system.

In Germany, the transboundary shipment of waste oils is allowed in accordance with the Basel Convention and European Regulation on Shipments of Waste.

In Greece, following the provisions of PD 82/2004, an explicit priority concerning the regeneration of waste oils has been raised and only if this is not feasible, technically, economically and organisationally may waste oils be disposed of in incineration. Therefore, so far, all the waste oil collected during the system’s operation has been subject to regeneration. Finally, it should be noted that according to Article 31 of the Law 4042/2012 which incorporates Directive 2008/98/EK into national legislation, it is foreseen, concerning the transboundary shipment of waste oils and in accordance with the articles 11 or 12 of the Regulation 1013/2006, that waste oils are not allowed to be transported to installations of incineration or co-incineration abroad, provided that the regeneration (R9) process is technically feasible within the country.

In Hungary, Decree No 4 of 23 February 2001 of the Minister for the Environment stipulated that waste oils should be regarded as energy sources, provided that their PCB or PCT contents do not exceed 50 ppm and they are devoid of hazardous pollutants that would present risks to the environment if the oils were incinerated. In addition, this Decree specifies that in the case of waste oils used as energy sources – as they are or upon mixing with products (co-incineration) – the provisions of the legislation in force on air quality protection with regard to waste co-incineration apply. No criteria exist regarding transboundary shipment.

In Ireland, there are neither requirements for the regeneration of waste oils nor mandatory restrictions on the transboundary shipment of waste oils from its territories
to incineration or co-incineration facilities. However, conditions specified in the Waste Licences of the facilities treating waste oils specify the locations where the processed fuel oil is to be used.

Italy gives priority to regeneration and exercises its right to limit transboundary shipments of waste oils. Article 216-bis states that:

“Waste oils must be managed:

(a) preferably through regeneration aimed at the production of lubricant bases;

(b) alternatively, but still in accordance with the priority order referred to in Article 179(1), if regeneration is technically unfeasible and not economically viable, through combustion;

(c) as a last resort, if the treatment processes referred to in subparagraphs (a) and (b) above are not technically feasible due to the composition of the waste oils, through the disposal operations referred to in Part IV, Annex B to this Decree.”

In order to give priority to the regeneration of waste oils, transboundary shipments of waste oils from Italy to incineration or co-incineration installations located outside the national territory are prohibited if the conditions referred to in Articles 11 and 12 of Regulation (EC) No 1013/2006 apply. The principles referred to in Articles 177 and 178, as well as the principle of proximity, apply.

Transboundary shipments of waste oils from Italian territory to regeneration installations located outside the national territory are considered in accordance with Regulation (EC) No 1013/2006 and, in particular, Article 12 thereof.'

In Latvia, in accordance with Cabinet Regulation No 485 of 21 June 2011 “Procedure for the Management of Certain Types of Hazardous Waste", the manager or holder of waste oils must ensure regeneration of waste oils where this is technically feasible and economically viable and meets the conditions listed in the category A or B pollution permit or the waste management permit. At present, waste oils are not being regenerated in Latvia. In the reporting period, Latvia did not set any restrictions as to the transboundary shipment of waste oils from its territory to incineration or co-incineration facilities in another country.


In Luxembourg, waste oils are primarily treated by regeneration (Art. 24 (3)). When the regeneration of waste oils cannot be carried out due to duly justified technical, economic or organisational reasons, waste oils must be subject to a disposal operation duly authorised under the law of 21 March 2012. In order to give priority to regeneration, the competent authority may lift, in accordance with Regulation (EC) No 1013/2006, objections to cross border transfers for incineration or co-incineration so that waste oil can be regenerated.

In Malta, during the reporting period all waste oils were exported for regeneration, thus no restrictions in accordance with Article 21(3) where effected. However, sub-regulation (3) of regulation 18 empowers the competent authority to restrict the transboundary shipment of waste oils from its territories to incineration or co-incineration facilities in order to give priority to the regeneration of waste oils.

In Poland, in the reporting period, waste oils were handled as specified in Article 39 of the Act of 27 April 2001 on Waste (Journal of Laws of 2010, No 185, item 1243, as amended). In accordance with this provision, waste oils must in the first place be subjected to recovery by regeneration. If waste oil regeneration is impossible due to the level of pollutants, these oils should be subjected to other recovery operations. As a last resort, if waste oil regeneration or other recovery operations are impossible, waste oils may be disposed of. The detailed method for handling waste oils is set out in the Regulation of the Minister for Economy and Labour of 4 August 2004 on Detailed Method for Handling Waste Oils.

A register of entities engaged in waste oil regeneration was maintained in 2010, 2011 and 2012 in Poland. This obligation was imposed by the Chief Inspector of Environmental Protection, which is the authority competent for transboundary shipment of waste in Poland, in Article 39(1a) of the Act of 27 April 2001 on Waste (Journal of Laws of 2010, No 185, item 1243, as amended).

Article 91(2) of the Act of 14 December 2012 on Waste gave priority to the regeneration of waste oils. Therefore, if waste oils were to be shipped from Poland to a waste incinerator or co-incinerator, the Chief Inspector of Environmental Protection would be required to lodge a protest against such shipment in order to give priority to the regeneration of waste oils. This was not the case in the period 2010–2012.

In Portugal, regeneration remains the operation preferred to any other recovery operation for waste oils. To date, however, the amount of waste oils collected with technical specifications (requirements) allowing regeneration has been the major constraint on the installation of a regeneration facility on national territory. For that reason, and given the management objective laid down for regeneration, Portugal exports waste oils for regeneration to other Member States, in particular Spain and Germany.

Romania may, in order to give priority to the regeneration of used oils, according to Article 30(3) of Law no 211/2011, raise objections, observing Article 11 or 12 of Regulation (EC) No 1013/2006.

Between 2010 and 2012 there were no requests to transfer used oils to incineration or co-incineration plants located on the territory of other Member States or third countries (except for some oils containing PCB/PCT), the entire collected amount being treated in Romania. Additionally, in the period covered by present report, there were no plants in Romania authorised for the regeneration of used oils.

In Slovakia, pursuant to sect. 42(4) of the Waste Act, given favourable technical, economic, and organizational conditions, holder of waste oils shall be obliged to give priority to their regeneration; otherwise, the holder shall be obliged to ensure their energy recovery in line with special regulations. If their recovery is not possible, holder of waste oils shall be obliged to ensure their disposal. Within the monitored period and in line with the provision of sect. 23(4) of the Waste Act it was stipulated that the local recovery of hazardous waste generated in the Slovakia shall have priority, in compliance with the Waste Management Programme. Should recovery of such waste be impossible in the Slovakia, its recovery in one of the Member States shall have priority.

The Waste Act does not address any special limitation to transboundary shipment of waste oils from the territory of the Slovakia to incineration facilities (D10) or co-incineration installations (R1) with the objective to give priority to the regeneration of waste oils. In the case of transboundary shipment/export of waste oils from the territory of the Slovakia with the objective of their disposal (D10), documentation is required showing that the technical capabilities or technical equipment or capacity needed to dispose of the waste oils does not exist in the country.

As to the applications for shipment, granted licences or carried out shipments of waste oils from the territory of the Slovak Republic for D10 or R1 purposes respectively, during the period from 12.12.2010 to 31.12.2012 no application for license was submitted and therefore no license has been issued and no consequent illegal shipment of waste oils has been detected. Furthermore, within this time period no applications for licenses and therefore no permits have been granted for transboundary shipment/export of waste oils from the territory of the Slovak Republic for the purposes of R9 (oil re-refining).
In **Slovenia**, the regeneration of waste oils does not have priority over co-incineration or incineration. In regeneration, a treatment provider must only take into account restrictions on the level of PCBs and halogens in the waste oil intended for regeneration – only waste oil which contains no more than 5 mg of PCBs and no more than 30 mg of halogens per kg may be regenerated.

There are no facilities for the regeneration of waste oils in Slovenia. This means that transboundary shipments of waste oils may only be restricted under Article 3 of the Decree on Implementation of Regulation (EC) No 1013/2006 on shipments of waste, which states that in relation to shipments of waste from the Republic of Slovenia intended for disposal, the Environment Agency of the Republic of Slovenia shall pay due regard to the fact that the disposal of waste in the **Republic of Slovenia** has priority over the disposal of waste abroad if, under operational programmes on waste management, capacities are available in the **Republic of Slovenia** for the disposal of individual types of waste.

In **Spain** Article 7 of Royal Decree 679/2006 of 2 June sets out the regeneration of oils as priority treatment:

> “**Article 7. Priorities in the management of waste oils.**

_Treatment through regeneration shall take priority in the management of waste oils, which, in all cases, shall be carried out in this order of preference: regeneration, other forms of recycling and energy recovery._”

Moreover, Article 26(4) of Law 22/2011 of 28 July allows for restricting exports from national territory to incineration or co-incineration facilities, in order to give priority to regeneration:

> “**26.4. In order to give priority to the regeneration of waste industrial oils, the competent authorities may restrict exports from national territory of waste oils destined for incineration or co-incineration facilities, in accordance with the objections envisaged in Articles 11 or 12 of Regulation (EC) No 1013/2006.**”

Some specific measures adopted by the autonomous communities include: permits for facilities in Castile-Leon that treat waste industrial oils prohibit mixing waste oils with other waste and substances, as well as with oils of a different nature and composition; and in Cantabria producers are required to collect and store generated waste separately, and during the inspection visits it is checked that there is a container for each generated waste and that they are being stored correctly.

In **Sweden** there are few operators that collect and pre-treat/treat waste oils. Usually treatment of Swedish waste oil is finally made (regeneration) in foreign plants.

In the **United Kingdom** there is no requirement for waste oils to be regenerated in the UK although they may be regenerated on a voluntary basis. Waste oils can be burnt in the UK provided this is in compliance with the Industrial Emissions Directive. Some export for incineration is allowed where the incineration treatment is classed as a recovery operation. Shipment of waste oil for incineration classed as disposal is
prohibited, as is shipping it for any purpose to a non-OECD nation (due to waste oil being
designated as a hazardous waste) under the UK Plan for Shipments of Waste.

The United Kingdom has produced a Quality Protocol that sets out end of waste criteria
for the production and use of processed fuel oil (PFO) from waste lubricating oils.

**Conclusion:**

24 Member States have reported that they have introduced schemes for separate
collection and 24 Member States have reported that they have implemented a ban on
the mixing of waste oils in 2010-2012.

The United Kingdom is the only Member State out of those responding which has
reported that it has not yet implemented a separate collection scheme, having only
voluntary collection in place. The United Kingdom was also the only Member State
stating in its reply that this is covered under a more general ban on the mixing of
hazardous wastes.

19 Member States reported that they have introduced additional measures for the
separate collection and treatment of waste oils. These included, for example, technical
requirements on the facilities treating the waste oils, and producer involvement on
either a mandatory or voluntary basis.

The outstanding six Member States which reported that they have not adopted
additional measures are: Cyprus, Estonia, Ireland, Italy, Malta and Slovenia.

All 25 reporting Member States gave details on whether waste oils are subject to
regeneration requirements and how they manage exports of waste oils to allow for
regeneration outside of their borders, with 19 Member States having reported that
they had in fact established special requirements on regeneration.

### 3.12 Bio-waste

#### 3.12.1 Separate Collection of Bio-waste

Question (13) (i): *Please describe briefly how the Member State encourages the separate
collection of bio-waste with a view to the composting and digestion of bio-
waste.*

**Article 22 (a)** which is the relevant article for this question requires that Member States
take measures, as appropriate and in line with the waste hierarchy (**Article 4**) and the
Directive’s stipulations on the protection of human and environmental health (**Article
13**), in order to encourage the separate collection of bio-waste with a view to the
composting and digestion of bio-waste. **Question (13) (i)** asks what measures countries
have taken in this regard.

19 Member States have reported that they have taken steps to encourage the separate
collection of bio-waste. It should be noted, however, that of these, three reported that
they did not have measures in place during the reporting period: Bulgaria, Finland and
Germany. However, Germany reported that its bio-waste legislation is coming into force
in 2015. The detailed replies are summarised below.
In addition:

**Croatia** responded by providing high level details of the stipulations within its legislation to establish plans for bio-waste management, but did not to describe any actual measures which have been taken to encourage separate collection.

**Cyprus** described a pilot project for the collection of bio-waste which it reported had started in 2012 for six communities and one municipality in the Nicosia district. The waste is being treated through anaerobic digestion to produce biogas and green waste is being composted.

**The Czech Republic** reported that it had not mandated the separate collection of bio-waste during the reporting period but it was moving towards bringing such a mandate into force. Also, some municipalities were already providing separate collection of bio-waste.

**Denmark's** reply mostly concerned the recovery of food waste still in its packaging through mechanical biological treatment, which does not count as separate collection of bio-waste. It also reported that green waste is collected from bring sites, and estimates that in 2011 87% of garden waste was composted, but that there was no separate collection of food waste.

**Ireland** reported that it had a 37% household coverage of separate food waste collection as of 2011 and that it had drawn up a national strategy on biodegradable waste.

**The United Kingdom** reported that it had established no separate collection of bio-waste on the territorial island of Gibraltar.

The best current practice has been reported by **Finland**, which reported that it brought in legislation for the mandatory collection of food waste in 2012, and has estimated that 13% of total municipal waste collected in 2011 was composed of separately collected bio-waste.

**Member States replies are summarised below:**

**Austria** has with the regulation on the collection biogenic waste BGBI 1992/68 IDF BGBI 1994/456 stipulated legally binding rules on the obligation to separately collect biogenic waste. Bio-waste from households (cuttings and organic catering waste) is predominantly collected from the kerbside nationwide by public bodies private organisations acting on their behalf. Provided that the biogenic waste directly in the area of households or facilities will be recovered (Eigenkompostierung) it is not separately collected.

In **Bulgaria**, for the purpose of establishing obligations for separate collection of bio-waste, a Regulation on Separate Collection of Bio-Waste has been drafted and is expected to be adopted and published before the end of 2013. The draft regulation establishes the obligations for municipalities to implement separate collection and recycling systems for bio-waste (food waste and garden and park waste as part of the household waste stream), which should meet the following targets:
by 31 December 2016: not less than 25 % of the quantity of household bio-waste produced in the region in 2014;
by 31 December 2020: not less than 50 % of the quantity of household bio-waste produced in the region in 2014; and
by 31 December 2025: not less than 70 % of the quantity of household bio-waste produced in the region in 2014.

Regarding the overall management of the bio-waste produced within the territory of each municipality, municipality mayors are obliged to include in the municipal waste management programmes special measures for bio-waste prevention, separate collection and recovery within the territory of the municipality, taking into consideration the specific conditions of the separate types of residential area (size, type, number of residents, etc.) which include as a minimum a phasing in of separate collection and recovery of bio-waste collected through the municipal separate collection systems, as well as calculation of the number of households and of the population of each municipality which are serviced by the municipal separate collection system; separate collection and recovery of the waste from areas for public use, parks and gardens; a plan for setting up bio-waste recovery facilities, where such are planned within the territory of the municipality, in accordance with the decision of the regional association of municipalities determining the location, the required capacity and treatment technology; encouragement of on-site composting; and raising public awareness of the benefits of, and requirements for, the separate collection and recovery of bio-waste.

In Croatia, the separate collection of bio-waste with a view to the composting and digestion of bio-waste must be ensured in accordance with Article 56(1) of the Sustainable Waste Management Act, which states that: “A person authorised for the management of bio-waste under the acts adopted pursuant to this Act and the local self-government unit shall ensure that their documents adopted pursuant to this Act provide for the separate collection of bio-waste for the purpose of composting, digestion or the recovery of energy from such bio-waste.”

Waste management documents discuss individual types of waste, including bio-waste. The Waste Management Plan of the Republic of Croatia, as required by Article 17 of the Sustainable Waste Management Act, includes, among other things: assessment of the development of waste streams, the need for and the manner of the establishment of new systems and additional infrastructure, and a network of facilities and installations. Under Article 21, the waste management plan of a local self-government unit and the City of Zagreb must contain, among other things, measures covering the collection bio-waste, and data on existing infrastructure and bio-waste arisings.

In Cyprus, a pilot programme for separate collection of bio-waste started in 2012 in 6 communities and one municipality in Nicosia district. The waste collected is used in an anaerobic digestion process in order to produce biogas (and finely electricity) and compost while the green waste from parks and gardens is used directly for compost.

In the Czech Republic, the Waste Act imposes on waste producers the general obligation to sort waste according to individual types and categories. The creation of conditions for
the separate collection of bio-waste produced by households, trades, industry and authorities is a principle stipulated in the WMP of the Czech Republic. A strategy is outlined in the WMP for reducing bio-waste stored in landfills in the interest of achieving the objective of reducing the maximum quantity of this waste stored in landfills. At the present time the separate collection of biodegradable waste in the Czech Republic is not stipulated in legislation, however in many municipalities it is already performed, in particular in smaller municipalities and in residential parts of cities. Such separately collected biodegradable waste (especially “green waste”) is processed within the framework of the municipality’s system, for example at municipal composting plants. The separate collection of bio-waste for the purpose of composting was supported through subsidy from Operational Programme Environment 2007 – 2013.

The Czech Republic is aware that the introduction of the separate collection of bio-waste is necessary in order to guarantee the quality of products from managing bio-waste and in order to comply with the objectives of Directive 1999/31/EC on the landfill of waste, and therefore steps are being taken by the Czech Republic for its compulsory implementation. At the present time the Czech Republic is planning to stipulate in the new Waste Management Plan and the new Waste Act an obligation on municipalities to set the method and provide locations for the separate collection of bio-waste of plant origin. Subsidy support from the OPE is also planned for the separate collection of bio-waste for the purpose of increasing its material use for the next period.

In Denmark, the Waste Order contains no requirement concerning the separate collection of bio-waste, but until 1 January 2016 municipal authorities can offer undertakings within their area membership of a scheme for organic waste that is separated out through sorting from the waste that is collected via their household refuse collections. According to the Waste order, waste-producing undertakings can transfer their waste food in its original packaging to a collection undertaking with a pre-treatment plant or re-use plant, which after the waste is pre-treated will ensure that the packaging is managed in accordance with applicable regulations and that energy is recovered from the waste food through biological gasification and subsequent use of the nutrients on agricultural land.

The work currently being carried out within the EU concerning the establishment of End of Waste criteria for organic waste will help to promote the separate collection of bio-waste. Garden waste must be handled in accordance with the general waste legislation and the waste hierarchy. Garden waste can normally be taken to municipal re-use sites, and many municipal authorities have established collection schemes for household garden waste. Garden waste is composted and used as compost. In 2011, 87 % of garden waste was composted, equivalent to approximately 534,000 tonnes of garden waste.

In Estonia, Pursuant to Council Directive 1999/31/EC, Section 134 of the Waste Act lays down a prohibition concerning the percentage of biodegradable waste deposited, specifying that the percentage of biodegradable waste in the municipal waste deposited in a landfill must not exceed:

1) 45 % by weight, as of 16 July 2010;
2) 30 % by weight, as of 16 July 2013; and
3) 20 % by weight, as of 16 July 2020.

The prohibition concerning the percentage biodegradable waste deposited in landfills set out in the Waste Act is slightly stricter than the requirement in Directive 1999/31/EC, which aimed to motivate enterprises to develop the possibilities for the management of biodegradable waste. Activities under the measure ‘Development of the infrastructure of waste handling’ set out in the Waste Plan also aim to develop the separate management of biodegradable waste. Furthermore, an action plan was drawn up for the management of biodegradable waste (http://www.envir.ee/997).

As a result of the Waste Plan and the action plan, the requirement for the separate collection of biodegradable waste has been enforced and facilities have been created in several larger municipalities. The collection, management and both aerobic and anaerobic treatment of biodegradable waste have been financially supported from the Cohesion Fund through the Environmental Investment Centre.

In Finland, Section 14 of the Government Decree on Waste 179/2012 requires that operators organise separate collection and recycling of bio-waste, taking into account the waste hierarchy and the best environmental outcome based on life-cycle thinking. Also the National Waste Plan sets as a target that composting and anaerobic digestion of municipal waste should increase from 7 % in 2006 to 20 % in 2016. The amount of municipal bio-waste (food waste and garden waste) composted or treated in biogas plants was 355,000 tonnes in 2011 which corresponds to 13 % of the municipal waste produced that year.

There is a landfill tax of 50 €/ton in place. Furthermore, the Government of Finland is intending to prohibit landfilling of most organic wastes from the beginning of year 2016. The production of electricity from biogas is supported in Finland by a feed-in tariff granted to new biogas power plants that have a nominal output of more than 100 kW. Biogas production can also be supported by investment subsidies such as energy support which is granted by the regional Centres for Economic Development, Transport and the Environment.

The Waste Management Plan 2010 of the Åland Islands encourages composting food-waste and other bio-waste at detached houses on the countryside or to transport the bio-waste to a composting-plant. Separated collection of bio-waste should increase and the plan stresses that digestion is environmentally better than composting.

In Germany, municipalities are required to provide comprehensive separate collections by January 2015, including such a collection of bio-waste. At the time of reporting, bio-waste was collected separately in 326 out of 402 counties and cities in the country.

In Greece, the use of composting bins in households is promoted and the network for waste coming from edible oils and fats for the production of bio-diesel is encouraged. Moreover, a guide on the management of bio-waste has been issued aiming at the promotion of separate collection of bio-waste.
Hungary, promotes the separate collection and treatment, representing a high level of protection of the environment, of bio-waste, and the use of environmentally safe materials produced from bio-waste through legal and economic instruments and conscious awareness-raising. According to Article 7 of the Waste Management Act in force in the given period (Act XLIII of 2000), the waste management plans should include the measured composition of the wastes deposited or to be deposited at municipal landfills, and the mass distribution of the components including biodegradable organic contents. Article 3 of Decree No 23 of 29 December 2003 lays down provisions in relation to separate collection:

- in case the pre-requisites of composting and anaerobic biodegradation are met, bio-wastes shall be collected separately at the site of production, and contamination with other wastes or materials shall be avoided;
- separately collected bio-waste can be subjected to composting or anaerobic biodegradation when they are not suitable for re-processing any more, or when the ecological and profitability prerequisites of re-processing are not satisfied; and
- among bio-wastes, only green wastes can be collected in waste collection yards.

Decree No 16 of 10 April 2002 of the Minister of Health on the public health requirements related to municipal solid and liquid wastes lays down important health-related provisions with regard to separately collected biodegradable wastes. Article 7(1) of that Decree stipulates that separately collected biodegradable wastes can only be collected in closed containers and the collection site should be cleaned and disinfected on a regular basis.

Hungary also provided a list of additional measures which came into force subsequent to the 2010–2012 period with the enactment of the new Waste Act.

In Ireland, the Waste Management (Food Waste) Regulations 2009 (S.I. No. 508 of 2009) and the European Union (Household Food Waste and Bio-waste) Regulations 2013 (S.I. No. 71 of 2013) provide for producer responsibility at commercial food facilities and households respectively to segregate food waste and send it for recovery. The National Waste Report 2011 records that 25% of the available commercial food waste was collected, while 37% of households provided with a waste collection service already had a separate organic bin by 2011. The level of segregation and separate collection of food waste from the commercial and household sectors will increase progressively over time as a consequence of these sets of Regulations.

In Italy, Article 182 of the above-mentioned Legislative Decree No 152/2006 is specifically aimed at reducing the landfilling of bio-waste, assigning the Regions, municipalities and Optimal Management Areas the task of encouraging the separate collection of bio-waste, its treatment and the use of environmentally safe materials resulting from the treatment of bio-waste:

“The separate collection of bio-waste must be carried out with reusable containers that can be emptied or compostable bags certified in accordance with UNI EN 13432-2002.”
2. For the purposes of paragraph 1, the Regions and Autonomous Provinces, municipalities and Optimal Management Areas, insofar as they are competent and depending on the resources available under the legislation in force, shall adopt within 180 days of the effective date of Part IV of this Decree measures to encourage:

(a) the separate collection of bio-waste;

(b) the treatment of bio-waste in a way that fulfils a high level of environmental protection;

(c) the use of environmentally safe materials produced from bio-waste, in order to protect human health and the environment.”

In Latvia, according to the Waste Management Law, municipalities issue binding regulations on municipal waste management in their administrative territories. In the reporting period, most of Latvia’s municipalities have issued their new binding regulations on the management of municipal waste in their administrative territories or provided a more accurate formulation of the relevant existing regulations, including those dealing with bio-waste management.

The requirements attaching to bio-waste collection are set out in Cabinet Regulation No 898 of 22 November 2011 “Regulation on Waste Collection and Sorting Sites”. Bio-waste may be collected at separate collection points intended for municipal waste, sorted waste collection sites and waste sorting and transfer centres or stations (hereinafter referred to as the “sorting centre”). Pursuant to Cabinet Regulation No 1032 of 27 December 2011 “Regulation of Landfill Setting up, Landfill and Waste Dump Operation, Closure and Re-cultivation”, organic waste from food processing plants and processed wood may not be accepted in a landfill unless those are composted or used for landfill gas production.

In Luxembourg, 25 of the Law of 21 March 2012 provides that bio-waste should be subject to separate collection in line with the priority given to composting and digestion operations, or where this is not possible that the material should undergo other appropriate recovery. Municipalities are responsible for ensuring the management of bio-waste arising from households, or similar waste arising from other sources.

In Lithuania municipalities organise their municipal waste management schemes taking into account the specific characteristics of each region and the opportunities for cooperation between the regions so that green waste, i.e. bio-waste resulting from the management of gardens, parks and plantations, is collected separately and treated in composting facilities, and individual composting of green waste is encouraged. Separate collection and recycling of bio-waste from hotels, motels, restaurants, public catering establishments (educational institutions, etc.), for example, by composting or for the production of biogas in a manner that is safe for the environment and public health and in line with the waste hierarchy is encouraged. Requirements for the composting of biodegradable waste and the construction, quality and use of composting facilities are laid down in Order No D1-57 of 25 January 2007 of the Minister for the Environment “On
approval of the environmental requirements for the composting of biodegradable waste” (Official Gazette, 2007, No 23-902; 2009, No 88-3777).

Municipalities encourage separate collection of biodegradable waste (by purchasing and distributing individual composting containers and biodegradable kitchen bags) and composting. According to expert assessments, it is estimated that about 7 400 tons of biodegradable municipal waste had been individually composted in 2010, about 12 000 tons in 2011, and about 23 800 tons in 2012. Individual composting of biodegradable waste is encouraged. It is envisaged to purchase 157 899 units of individual composting containers to be used for composting about 102 000 t/m of biodegradable waste and distribute them to individual households in 2012–2013. In 2012, 70 623 units of individual composting containers had been distributed.

In Malta, during the reporting period, there was minimal separate collection of bio-waste; in fact there was no door-to-door collection of such waste. However, householders had the possibility to take bio-waste like garden and park waste to civic amenity sites.

In Poland, the following measures are taken to encourage the separate collection of bio-waste with a view to the composting, treatment of such waste in an environmentally sound manner and the use of environmentally safe materials produced from bio-waste:

- Co-financing of the purchase of home compost bins.
- The possibility of handing over separately collected bio-waste to Separate Collection Facilities for Municipal Waste.
- Setting a lower waste management fee for the separate collection of bio-waste.
- Carrying out educational and informational campaigns, including the promotion of bio-waste treatment technologies that produce rich compost.
- Creating infrastructure necessary for bio-waste treatment at the regional level.

In Portugal, following legislative and regulatory procedures have been adopted:

- Producers of waste are obliged to separate waste at source (Article 7(4) of the RGGR).
- Municipal authorities as the authorities responsible for implementing waste management plans are required to comply with targets on the preparation for re-use and recycling of municipal waste, including biodegradable municipal waste (Article 7(6)(a) of the RGGR).
- The amount of the management fee payable by bodies managing systems for the management of specific waste streams, waste incineration and co-incineration facilities and landfills, is increased by 50% for that part of waste classified as recyclable (Article 58(3) of the RGGR).

In addition, awareness raising measures have been adopted. These are actions to disseminate best practices, in particular concerning methods of separation, packaging and collection, including door-to-door collecting and the provision of equipment for packaging waste, mainly directed at large producers, such as restaurants, markets and hypermarkets, agricultural cooperatives and industrial processing plants. Furthermore,
financial incentive measures have been adopted, including funds allocated to support the construction of new composting and digestion facilities and to improve existing facilities, as well as mechanical waste treatment facilities which include the separation of bio-waste. Lastly, mechanical separation has been implemented in facilities designed, constructed and licensed for that purpose where there has been undifferentiated collection.

In Romania, in order to reduce the amount of landfilling and stimulate treatment of bio-waste, Government Emergency Ordinance no 196/2005 on the Environmental Fund, with subsequent amendments and supplements, introduces the objective to reduce by 15% the amount of waste disposed through landfilling from the municipal and similar waste collected through the public sanitation service, applicable to local public authorities in charge of organising and managing at a local level the management process of the waste generated on their administrative territory. From the funds raised by the Environmental Fund, projects aiming to treat bio-waste in a manner ensuring a high level of environmental protection, composting and fermentation can be funded.

In Slovakia, provisions of sect. 18(3) letter m) of the Waste Act ban to dispose of biodegradable waste from gardens, parks, including waste from cemeteries and waste from other green areas located on sites belonging to legal persons, natural persons or civil associations, if this waste is part of municipal waste. Pursuant to the provisions of sect. 39(15) of the Waste Act, the municipality shall be obliged to separate biodegradable waste in accordance with the strategy for biodegradable waste management approved by the Government of the Slovak Republic.

Introduction of fertilisers into circulation in the Slovak Republic is regulated by Act No 136/2000 on fertilisers that lays down conditions for the introduction of fertilisers, substrates for plant production and auxiliary substances used to modify soil properties (henceforth only "fertilisers") into circulation, as well as by Regulation of the European Parliament and of the Council No 2003/2003 relating to fertilisers. Certification of fertilisers-compost is carried out by the Central Controlling and Testing Institute in Agriculture (ÚKSÚP) on the basis of applications from the producer or their commissioned agents licensed to carry out trade activities. Application for certification of fertiliser is submitted by the applicant via a standardised form issued by the regulating authority. Separate collection of oils and fats for consumption began to develop gradually and independently, based on market demand, without having any explicit legal requisites for such separate collection.

Government of the SR in its Decree No 904/2010 approved a document called Strategy for reduction of biodegradable waste going to landfills. This document was created on the basis of a requirement laid down in Article 5(1) of Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste for the area of reducing the landfilling of biodegradable municipal waste. Objective of this strategy is to reduce biodegradable municipal waste on landfills, propose measures to achieve the targets laid down in Article 5(2), mainly through recycling, composting, production of biogas, or recovery of waste in the form of secondary raw material and energy. Measures adopted to reduce the landfilled biodegradable waste aim also at separate collection of biodegradable
waste, separation of waste in general, and waste recovery and recycling. Bio-waste management is also part of the Waste Management Programme of the SR for 2011–2015 that includes a set of other measures to reduce landfilling of this type of waste.

In Slovenia, the Decree on the Management of Biodegradable Kitchen Waste and Green Garden Waste lays down the obligations and rules of conduct applying to biodegradable kitchen waste and green garden waste generated in households (municipal waste) and from the performance of a commercial activity. A household producer of biodegradable waste has the option of choosing household composting if they so wish or if they have the possibility of doing so; if they do opt for household composting, their monthly biodegradable waste management fee is reduced. The compulsory public municipal waste collection service is obliged to encourage household producers of biodegradable waste to undertake household composting and to make them aware of the correct separate collection of biodegradable waste in accordance with the requirements of the above-mentioned decree.

A producer of non-household green garden waste must manage this waste in accordance with the Decree on Waste; they may also compost it themselves. A producer of kitchen waste in the catering sector must collect this waste separately and deliver it to a waste collector. The collector must ensure that this waste is recovered in accordance with the Decree on the Treatment of Biodegradable Waste.

In Spain among the legislative measures on bio-waste included in Law 22/2011 of 28 July, the following are worth noting:

- The introduction of a new definition of “Compost” in Article 3(y), defining compost as the organic amendment obtained from the aerobic thermophilic biological treatment of biodegradable waste collected separately. The organic material obtained from mixed waste biological mechanical treatment plants, which shall be called bio-stabilised material, shall not be considered as compost.
- The inclusion of bio-waste in Article 22. Specific preparing for re-use, recycling and recovery targets.

By 2020, the amount of domestic and commercial waste destined for preparing for re-use and recycling, for the paper, metal, glass, plastic, bio-waste fractions or other recyclable fractions, must reach, as a whole, at least 50% in weight.

- The inclusion of a specific article on bio-waste that urges the environmental authorities to promote measures to encourage separate collection, domestic composting, treating bio-waste and using environmentally safe materials.

“Article 24. on Bio-waste.

Without prejudice to the measures arising from the actions undertaken at Community level in compliance with the last paragraph of Article 22 of Directive 2008/98/EC, the environmental authorities shall promote measures that may be included in the waste management plans and programmes envisaged in Article 14, in order to encourage:
The separate collection of bio-waste to destine it for composting or anaerobic digestion, in particular regarding the plant fraction, bio-waste from large generators and bio-waste generated in homes.

Domestic and community composting.

The treatment of separately collected bio-waste, such that a high degree of environmental protection is achieved, carried out in specific facilities, avoiding mixing with mixed waste throughout the process. Where appropriate, the permit for these types of facilities must include the technical specifications for the correct treatment of the bio-waste and the quality of the materials obtained.

The use of the compost produced from bio-waste and environmentally safe compost in the agricultural sector, gardening or regenerating degraded areas, instead of other organic amendments and mineral fertilisers.”

In Sweden the environmental quality objectives describe the quality of the environment that we wish to achieve by 2020. To facilitate progress towards the generational goal and the environmental quality objectives, the Government adopts milestone targets in priority areas. One milestone target for biological recycling of food waste was introduced in 2012:

By 2018, at least 50 percent of food waste from households, institutional kitchens, shops and restaurants shall be sorted and processed biologically so that plant nutrients are utilized, with at least 40 percent being processed so that energy is also utilized.

One of five priority areas in the Swedish national waste management plan “From waste management to resource efficiency” is to increase the resource efficiency in the food-chain. The plan contains measures that can be implemented by various actors in order to increase biological recycling (composting and digestion) of food waste and to minimize the food waste.

Furthermore a government investigation has proposed to introduce an obligation for all municipalities to provide separate collection of food waste for all households. It is also proposed an obligation for all operators to sort out the food waste.

In the United Kingdom the Government encourages separate collection of bio-waste in England in a number of ways, including education and best practice guidance. However, government policy is that decisions on the best form of waste collection and treatment for a particular area of England are best made by the relevant local authorities. Guidance on applying the waste hierarchy identifies anaerobic digestion as the best technology currently available to treat food waste. The Anaerobic Digestion Strategy and Action Plan – produced in collaboration with stakeholders and published in 2011 sets out measures to overcome barriers to deployment of anaerobic digestion in England. The action plan is expected to be completed by March 2014 except for a few ongoing actions. The Government has committed financial support to the anaerobic digestion sector, with a £10m fund committed to raising capacity by 300,000 tonnes by 2015. Low carbon energy incentive schemes, such as the Feed in Tariff and the Renewable Heat Incentive already
offer support for the generation of renewable energy produced by anaerobic digestion. Furthermore, as part of England’s anaerobic digestion Action Plan, WRAP implemented a £500,000 fund to support demonstration projects which encourage the collection of food waste from businesses and public sector buildings.

In Wales, Landfill Allowances and Statutory Recycling Targets both encourage local authorities to separately collect bio-waste for recycling, whilst ring-fenced funding has assisted in setting up such schemes. The Food Waste Treatment Programme assists local authorities in procuring anaerobic digestion capacity to handle primarily municipal food waste. Northern Ireland is currently considering proposals for introducing landfelling restrictions for food waste and binding targets for recycling.

In Scotland, the Waste (Scotland) Regulations 2012 make it a statutory requirement that food waste must be separately collected from other waste and that a separate collection service must be provided. Through Zero Waste Scotland (ZWS), significant investment has been made in increased kerbside recycling services, including food waste collections. A total of nearly £20 million has been invested to help local authorities roll out food waste collections to households. They also offer communication support to local authorities to promote these services and ensure that all householders are aware of what and where they can recycle, including in high density and low performing areas. By the end of 2013, 1.2 million Scottish households will have a food waste collection service.

At a UK level, WRAP has supported the development of food waste collections through research and publications. This includes work to demonstrate the benefits of food recycling and best practice guidance on food waste collections for local authorities, businesses and other bodies WRAP also developed a food waste resources portal to provide up to date and relevant information on the different sources of food waste which could be used as feedstock for anaerobic digestion. Other research is conducted by the anaerobic digestion Centre of Excellence at the University of Glamorgan, which works with local authorities, developers and regulators to develop and disseminate best practice.

Gibraltar does not have any current separate collection for Bio-Waste and is dependent on the successful Waste Treatment Facility tenderer to determine the advanced thermal treatment process for the Facility and the requirements for compost and digestate.

### 3.12.2 Treatment of Bio-waste

**Question (13) (ii): Please describe briefly how the Member State encourages treatment of bio-waste in a way that fulfils a high level of environmental protection.**

**Article 22 (b)** which is the relevant article for this question requires that Member States take measures, as appropriate and in line with the waste hierarchy (**Article 4**) and the Directive’s stipulations on the protection of human and environmental health (**Article 13**), to encourage the treatment of bio-waste in a way that fulfils a high level of environmental protection. **Question (13) (ii)** asks what measures countries have taken in this regard.
20 Member States have reported that they have taken adequate steps to encourage treatment of bio-waste that fulfils a high level of environmental protection. Of these, and as above, Bulgaria and Germany’s reported measures were not in place during the reporting period, with Germany reporting that they were set to be introduced in 2015. The detailed replies are summarised below.

In addition:

Croatia did not to provide a substantial reply relating to specific measures on treating bio-waste. Similarly the reply provided by the United Kingdom lacked detail, stating that environmental protection is achieved through a permitting system. Luxembourg reported that “bio-waste treatment occurs through either home composting or through composting or digestion in duly authorised facilities.” Denmark and Poland did not submit a reply to this question in the Implementation Questionnaire 2010–2012.

The two principle measures of ensuring proper treatment of bio-waste and which stand as examples of current best practice are the establishment of specific legislation on treatment as reported by Estonia and Germany, or else controlling treatment through national permitting systems, as reported by Finland and the United Kingdom.

Member States replies are summarised below:

The Austrian Compost Ordinance BGBl II 2001/292 regulates the quality of compost, the nature and source of raw materials, and the prerequisites for the marketing. In addition, Austria has published a directive on state of the art of composting (2005), containing the minimum requirements for structural and technical equipment as well as for the management of composting facilities for the production of compost in accordance with Compost Ordinance, in order to produce a high quality product with low emissions. The Austrian Waste 2011 Verwertungsgrundsatz specifies the permissible material and the qualities of the fermentation residues for the purpose of fertilisation and fermentation.

In Bulgaria, for the purpose of ensuring the treatment of bio-waste in a way that fulfils a high level of environmental protection, a regulation on Bio-Waste Treatment has been drafted and is expected to be adopted and published before the end of 2013. The main purpose of the draft regulation is to establish the basic criteria for bio-waste treatment, including the requirements for production of the compost, the digestate, the organic soil improver and the stabilised organic fraction by the mechanical-biological treatment facilities.

National Technical Requirements for Bio-Waste Treatment Facilities (Composting and Anaerobic Digestion) and National Technical Requirements for Residual Waste Treatment Facilities (Mechanical-Biological Treatment and Incineration) have been drafted in addition to the statutory instrument. These documents establish standardised minimum requirements for the treatment techniques and technologies so as to ensure the use of best available technologies and techniques for bio-waste treatment.

In Croatia, Article 56(2) of the Sustainable Waste Management Act stipulates:

'(2) A person performing the treatment of bio-waste shall perform such treatment in a manner which meets high environmental standards.'
Bio-waste is defined as a special category of waste under Article 53(1) of the Sustainable Waste Management Act. This allows the Minister to issue rules in accordance with Article 53(2) laying down the procedures and targets for individual special waste management systems and the conditions for the management of special categories of waste.

In Cyprus, separate collected bio-waste is treated by licensed facilities that are obliged to follow certain environmental protection terms set in their permit.

In the Czech Republic, the Waste Act stipulates obligations for managing bio-waste. In accordance with the waste hierarchy preference is given to the use of waste over its disposal and preference to the material use of waste over energy recovery. Decree No 341/2008, on the details of handling biodegradable waste, regulates the details of the management of this waste, defines a list of waste and the requirements for the quality of waste that may enter technology for the material use of waste, technical requirements for the equipping and operation of installations for the treatment of bio-waste depending on the quantity and type of the bio waste treated in them, technical requirements for their treatment and criteria for control over the effectiveness of hygienisation. The Decree also stipulates the method and evaluation and the allocation of treated bio-waste into groups according to the method of their material use. The procedure for the taking of samples for the placement of bio-waste into groups according to the methods of their material use is according to the Czech Technical Standard ČSN 14899, which addresses the sampling of waste when the quality of the sampling is particularly important.

The preferential composting and anaerobic degrading of bio-waste with the use of products, in particular in agriculture, is the main principle of the valid WMP. The treatment of biodegradable waste was supported through subsidies from EU funds within the framework of OPE 2007–2013. The construction of 286 composting plans and biogas stations was supported. For the principles and measures for the management of biodegradable municipal waste the Czech Republic referred to its reply on the matter of separate collection (as detailed here in Section 3.6). Material use (composting and anaerobic degradation of bio-waste) with the use of products, especially in agriculture, is planned. Support for the treatment of bio-waste for the purpose of composting and digestion of waste is also planned in the new OPE for the next period.

In Denmark, the Waste Order contains no requirement concerning the separate collection of bio-waste, but until 1 January 2016 municipal authorities can offer undertakings within their area membership of a scheme for organic waste that is separated out through sorting from the waste that is collected via their household refuse collections. According to the Waste order, waste-producing undertakings can transfer their waste food in its original packaging to a collection undertaking with a pre-treatment plant or re-use plant, which after the waste is pre-treated will ensure that the packaging is managed in accordance with applicable regulations and that energy is recovered from the waste food through biological gasification and subsequent use of the nutrients on agricultural land.
The work currently being carried out within the EU concerning the establishment of End of Waste criteria for organic waste will help to promote the separate collection of bio-waste. Garden waste must be handled in accordance with the general waste legislation and the waste hierarchy. Garden waste can normally be taken to municipal re-use sites, and many municipal authorities have established collection schemes for household garden waste. Garden waste is composted and used as compost. In 2011, 87 % of garden waste was composted, equivalent to approximately 534,000 tonnes of garden waste.

In Estonia, the Minister of the Environment Regulation No 7 of 8 April 2013 ‘Requirements for the composting of biodegradable waste’ has been established in order to extend the possibilities for the management of biodegradable waste in accordance with environmental requirements. The Regulation sets out requirements for the composting of biodegradable waste through aerobic treatment and safety and quality parameters for compost according to the criteria on the basis of which certain types of waste cease to be waste.

In Finland, treatment of bio-waste professionally or on installation-scale, including composting and biogas production, will in most cases need an environmental permit, in accordance with the Environmental Protection Act. When issuing the permit the competent authority will evaluate if the operation is using the best available technology and best environmental practices. The permit authority may not issue a permit if the operation results in adverse effects on human health, other significant environmental pollution or risk, contamination of soil or groundwater, deterioration of special natural conditions or risk to water supply or other potential use important to the public interest in the area of impact of the activity, an unreasonable burden to its neighbours, or if operators engaged in the treatment of waste do not possess sufficient expertise. The permits are supervised by the Centres for Economic Development, Transport and the Environment or the municipal environmental protection committees, depending on the size and type of the operation.

The Finnish Environment Institute has issued in 2009 a guidance document on best available techniques (BAT) in production of biogas in the Finnish operating environment. Additionally, authorities and waste management companies encourage and issue guidance documents on home composting.

In the Åland Islands composting-plants need to have a permit and are inspected regularly.

In Germany, requirements for sanitation in the treatment process of bio-waste and the hygiene of the resultant products (compost, digestate) are provided in the Bio-waste Ordinance. Requirements for the emission free operation of plants are found in the Clean Air Act. Additional requirements for the reduction of emissions from organic waste fermentation facilities are provided in the proposed Biogas Predisposition regulation. In addition, a large portion of plants are signed up the voluntary quality assurance scheme ‘Bundesgütege-Community compost’.

In Greece, the operations applied up to now for the treatment of bio-waste include: (i) bio-diesel production coming from waste of edible oil and fat in suitably permitted
facilities; and (ii) units for the production organohumic fertilisers / compost that have the required permits.

In **Hungary**, treatment of bio-wastes fulfilling a high level of protection of the environment is ensured by Decree No 23 of 29 December 2003 of the Minister for the Environment and Water on the technical requirements of treating bio-wastes and composting. This Decree contains the key provisions related to the treatment of bio-wastes, with special regard to the separate collection of bio-wastes. With due regard to environmental considerations, Decree No 23 of 29 December 2003 of the Minister for the Environment and Water on the technical requirements of treating bio-wastes and composting specifies the criteria to be satisfied and the permits to be obtained for the harmless treatment of biodegradable wastes. For example, the spreading of joint composting was greatly encouraged by the fact that it was an activity that did not require a permit. The same holds for household composting, which is not covered by the Decree.

**Hungary** also provided a list of additional measures which came into force subsequent to the 2010–2012 period with the enactment of the new Waste Act.

In **Ireland**, composting and anaerobic digestion of bio-wastes containing animal by-products are subject to Animal By-product approval from the Department of Agriculture, Food and the Marine (DAFM) in accordance with the requirements of Regulation (EC) No. 1069/2009, as well as being subject to waste authorisation. Regulation EC) No. 1069/2009 lays down strict animal and public health rules in respect of all Animal by-products for: collection; transport; storage; handling; processing; disposal; and beneficial use.

The waste management obligations deriving from this body of legislation are, in many respects, significantly more stringent than the conventional rules that have been traditionally applied from the perspective of environmental protection in EU countries. The DAFM has adopted detailed “Conditions” documents for the composting and anaerobic digestion of bio-waste containing animal by-products, which apply the requirements of Regulation (EC) No. 1069/2009 and Implementing Regulation (EU) No. 142/2011 to the fullest extent.

**Ireland** did not provide a reply to this question beyond the general reply detailed in Section 3.12.1.

In **Latvia**, the Waste Management Law provides that bio-waste must be composted in municipal waste landfills or at sites that are specially set up for this purpose. In accordance with the Pollution Law and Cabinet Regulation No 1082 of 30 November 2010 “Procedure for Declaring Polluting Activities of Category A, B and C and Issuing Category A and B Pollution Permits”, category A or B pollution permits are required to operate biological treatment plants depending on their capacity. Waste composting sites must be set up for the purposes of bio-waste composting (the aerobic (oxygen-demanding) treatment, under controlled conditions and using micro-organisms, of bio-waste). A bio-waste composting site may be located in the territory of a municipal waste landfill.
As it is laid down in Cabinet Regulation No 898 of 22 November 2011 “Regulation on Waste Collection and Sorting Sites”, bio-waste composting sites accept the types of waste referred to in category A or B pollution permits. Bio-waste composting sites located outside municipal waste landfills must ensure the following:

1) a surface water drainage system (including sand catchers) to spray the water onto compost piles or conduct it to leachate collection facilities for the purposes of pre-treatment before conducting it to wastewater treatment plants;
2) a waterproof covering to prevent groundwater and sub-surface water pollution, providing that the maximum groundwater level is less than one metre below the base during the operation;
3) planting of trees and bushes around the bio-waste composting site;
4) fencing and lighting;
5) constructions and installations required to operate the site; and
6) information about the owner and operator of the bio-waste composting site, business hours and types of waste accepted by the site.

Where the bio-waste composting site is set up in the territory of a landfill, the drained surface water must be sprayed onto compost piles or conducted to leachate collection facilities. To promote the bio-waste composting process, compost shredders, blenders and mixers are used and regular temperature measurements and wetting are performed.

In Lithuania, 34 green waste composting sites had been constructed for the composting of separately collected green waste (21 had been constructed by using the European Union assistance funds for 2007–2013, and 13 had been constructed by using the European Union assistance funds for 2004–2006); 19 more green waste composting sites are planned to be constructed by using the European Union assistance funds.

To encourage the production and use of high quality compost, requirements are planned to be introduced for the quality and use of high quality compost produced from separately collected bio waste. Measures for the establishment of compost quality criteria and the use of compost are provided for in the draft National Waste Management Plan for 2014–2020.

In Luxembourg, bio-waste treatment occurs through either home composting or through composting or digestion in duly authorised facilities.

In Malta, although there is minimal source separation of bio-waste, bio-waste collected mixed with other waste is treated locally through anaerobic digestion following its extraction from the mixed waste by mechanical treatment. This compost is still considered waste and thus its use from a legal perspective the compost then derived is to be covered by an environmental permit before use for land recovery purposes. This process provides the overall best environment impact as it generates biogas for energy production and a compost for land recovery purposes.

Poland did not provide a reply to this question beyond the general reply detailed in Section 3.12.1.
In Portugal, the following procedures have been adopted:

- Mandatory entry and registration of data in SIRER;
- Licensing of the facility in order to ensure that the site, the design, the construction and the associated equipment comply with the legislation in force; and
- Monitoring of the operation to verify compliance with the requirements set out in the licence.

Additionally, some of the waste management systems have implemented Quality Management Systems that include certification of waste treatment facilities. One such example is LIPOR [Serviço Intermunicipalizado de Gestão de Resíduos do Grande Porto (the Intermunicipal Waste Management Service of Greater Porto)], whose Quality Management System, certified according to the reference standard NP EN ISO 9001, covers the collection of organic waste and the treatment facility for that waste.

Romania did not provide a reply to this question beyond the general reply detailed in Section 3.12.1.

Slovakia did not provide a reply to this question beyond the general reply detailed in Section 3.12.1.

In Slovenia, the Decree on the Treatment of Biodegradable Waste lays down requirements for the recovery of biodegradable waste into compost or digestate in a manner that is safe for the environment and for human health, and for the placing of compost or digestate on the market.

Spain did not provide a specific reply to this question beyond the general reply detailed in Section 3.12.1.

In Sweden in order to ensure compliance with the rules of consideration in the Environmental Code, a large number of environmentally hazardous activities and operations are subject to licensing. Such activities or operations may not be started without a permit. Activities or operations for which permits are compulsory are specified in the Environmental Code or in ordinances. A permit states the conditions under which an activity may be carried out. The licensing authority may refuse a permit if they find that the activity is not permissible under the Environmental Code. A holistic and integrated approach is applied, where impacts on land, air and water are jointly considered. Permits and permit conditions should benefit the aims of the Environmental Code and ensure that the requirements of its general rules of consideration are fulfilled.

Operations/facilities receiving more than 50 ton waste per year need an environmental permit. A permit states the conditions under which an activity may be carried out. It is mandatory for operators to have a self-monitoring system. Furthermore the authorities (municipalities or county administrative boards) carry out inspections. A facility receiving more than 10 ton other waste than park- and garden waste or more than 50 ton park-and garden waste needs a registration (Ordinance of environmental proceeding (SFS 2013:251)).

The Swedish EPA has also issued general advice concerning biological treatment.
In the **United Kingdom** the main way in which the Government ensures that anaerobic digestion & composting plants operate to a high level of environmental protection is through Environmental Permitting (which fulfils the requirements of Article 23 of the Waste Framework Directive), as regulated by the Competent Authorities. In Scotland, this is done through the Waste Management Licensing regime that meets the requirements of Article 23.

3.12.3 **Use of Bio-waste Products**

**Question (13) (iii): Please describe briefly how the Member State encourages the use of environmentally safe materials produced from bio-waste.**

Article 22 (c) which is the relevant article for this question requires that Member States take measures, as appropriate and in line with the waste hierarchy (Article 4) and the Directive’s stipulations on the protection of human and environmental health (Article 13), to encourage the use of environmentally safe materials produced from bio-waste. **Question (13) (iii) asks what measures countries have taken in this regard.**

19 **Member States** provided details of how they have promoted the use of environmentally safe bio-waste products. Of these and as above, **Bulgaria** and **Germany**’s reported measures were not in place during the reporting period, with **Germany** reporting that they were set to be introduced in 2015.

In addition **Croatia** did not provide a substantial reply including specific measures for this question. **Denmark, Italy, Poland, Romania and Slovakia** did not submit a reply to this question for the Implementation Questionnaire 2010–2012 at all.

Although **Germany**’s reported measures were not in place during the reporting period, they do still lead the way in best practice. As reported the Bio-waste Ordinance lists all permissible feed-stocks, ensuring that only suitable bio-waste is processed into compost and other products. The Ordinance also contains requirements for product quality including limit values for heavy metals and contaminants, and stipulations on product hygiene.

**Member States replies are summarised below:**

The **Austrian** compost ordinance is a national waste-to-end approach, and compost meeting the requirements of this Regulation may be brought as a product to the market. For example, the use of household waste (household waste and similar commercial waste) as starting material for compost production and subsequent application to the soil is generally not permitted because of the high pollutant content of household waste.

In **Bulgaria**, with a view to ensuring a market and building trust in end-users, the draft regulation on Bio-Waste Treatment establishes minimum end of waste criteria for the free placing on the market as a product of the compost and digestate obtained as a result of the biological treatment of separately collected bio-waste. To ensure the obtaining of highest-quality products, a list has been compiled of the materials (bio-waste) admissible for treatment at facilities for composting and anaerobic digestion of separately collected bio-waste. To evaluate and control the products obtained as a result
of the recycling of separately collected bio-waste, a quality assurance procedure has been established, including obligations of facility operators, as well as of accredited laboratories to analyse the main quality parameters (minimum standardised requirements for content of heavy metals, pathogens, weeds, admixtures in the compost).

Special conditions for labelling and the minimum information that will be provided to end-users will ensure the appropriate use of bio-waste recycling products. To ensure safe use, the Regulation on Bio-Waste Treatment establishes the areas of use of the end-products of bio-waste biological treatment and the maximum quantities with which the soil can be treated over a specified period of time. Besides this, a compost quality assurance system and a National Compost Quality Assurance Organisation will be established. The purpose of this organisation is to carry out external checks of compost quality and to issue a quality certificate/label which guarantees that the compost produced is of high quality and has been produced in conformity with the requirements of the Regulation on Bio-Waste Treatment and thus maintain the trust of the principal users of compost (farmers, gardeners and others) and ensure a permanent market for the products of biological treatment of the separately collected bio-waste. The new regulatory requirements will provide guarantees to farmers and agricultural organisations using compost and will assure the quality of the product obtained, which does not pose a hazard to human health and the crop when used as a soil fertiliser.

In **Croatia**, Article 56(3) of the Sustainable Waste Management Act stipulates:

> '(3) The Minister shall, in cooperation with the minister responsible for agriculture, lay down the criteria for the use of environmentally safe materials produced from bio-waste in the rules referred to in Article 53(3) of this Act, which regulates the management of bio-waste.'

In **Cyprus**, promotion of the compost produced for gardening, provided the product (compost) is following certain requirements from other legislation (e.g. fertilisers).

In the **Czech Republic**, the use of environmentally safe materials produced from bio-waste is also a main priority in legislation. In its fourth part the Waste Act imposes an obligation for the biological treatment of biodegradable waste. The Ministry of the Environment in cooperation with the Ministry of Health and the Ministry of Agriculture have issued a statutory instrument Decree No 341/2008, on the details of handling biodegradable waste, which among other things focuses in detail on the hygienisation of treated waste, and stipulates limit values both for the concentration of foreign substances and also for indicator organisms. This Decree also defines the requirements for the quality of waste that may enter technology for the material use of waste.

In **Denmark**, the Waste Order contains no requirement concerning the separate collection of bio-waste, but until 1 January 2016 municipal authorities can offer undertakings within their area membership of a scheme for organic waste that is separated out through sorting from the waste that is collected via their household refuse collections. According to the Waste order, waste-producing undertakings can transfer their waste food in its original packaging to a collection undertaking with a pre-
treatment plant or re-use plant, which after the waste is pre-treated will ensure that the packaging is managed in accordance with applicable regulations and that energy is recovered from the waste food through biological gasification and subsequent use of the nutrients on agricultural land.

The work currently being carried out within the EU concerning the establishment of End of Waste criteria for organic waste will help to promote the separate collection of biowaste. Garden waste must be handled in accordance with the general waste legislation and the waste hierarchy. Garden waste can normally be taken to municipal re-use sites, and many municipal authorities have established collection schemes for household garden waste. Garden waste is composted and used as compost. In 2011, 87 % of garden waste was composted, equivalent to approximately 534,000 tonnes of garden waste.

In Estonia, the Minister of the Environment Regulation No 7 of 8 April 2013 ‘Requirements for the composting of biodegradable waste’ provides for the production of compost that complies with requirements and has ceased to be waste. The recovery of separately collected bio-waste and the introduction of a technology for treating anaerobic sewage sludge in a water treatment plant are supported from the Cohesion Fund through the Environmental Investment Centre. The objective is to extend the environmentally safe possibilities for using biodegradable waste.

In Finland, only such materials that fulfil the quality requirements of the national and EU-legislation on fertiliser products may be placed on the market and used as fertilisers, liming materials, soil conditioners, substrates or microbe products. The detailed quality requirements are set in the Ministry of Agriculture and Forestry Decree 24/11 on Fertilizer Products (as amended by Decree 12/12). The national type designation list of fertiliser products is kept by the Finnish Food Safety Authority Evira.

In Germany, Annex 1 to the Bio-waste Ordinance provides an exhaustive list of permissible feed-stocks which ensures that only suitable bio-waste is processed into compost and other products. In addition, the Bio-waste Ordinance contains requirements for product quality including limit values for heavy metals and contaminants, and stipulations on product hygiene. Due to the requirements of the regulation and said system of quality assurance (and the according compost awards RAL quality mark) Germany is confident that only quality compost and digestate is created, and their sale in agriculture is unproblematic.

In Greece, suitably certified products are produced during operations for the treatment of biowaste including bio-diesel production coming from waste of edible oil and fat during the production of organohumic fertilisers / compost.

In Hungary, in the 2010–2012 period, household composting and the use of ready composts were greatly encouraged by practical trainings and consultations provided to the public by civil organisations dealing with composting, and the professional guidelines issued by the said organisations and the Ministry.

Hungary also provided a list of additional measures which came into force subsequent to the 2010–2012 period with the enactment of the new Waste Act.
In **Ireland**, the use of bio-wastes derived from animal by-products are subject to stringent controls and are required to be fully traceable under the animal by-product code. The waste authorisations for composting facilities provide that the processed compost material may be regarded as a product and not as a waste only if it has attained a specified quality standard. Conversely, treated material at compost facilities that has not attained the specified quality standards is regarded as a waste and spreading of such material is subject to specific waste authorisation. The National Standards Association of Ireland has produced a National Compost Quality Standard (I.S. 441) in 2011 and compliance with the national standard would be regarded as prima-facie evidence of a quality compost.

**Italy** did not provide a reply to this question beyond the general reply detailed in Section 3.12.1.

In **Latvia**, in the reporting period, the rate of natural resource tax applied to plastic bags was considerably increased, referring to plastic bags attached by a trader to the aggregation of goods or products (purchase), either packaged or unpackaged, for the customer’s convenience or advertising design, regardless of whether a separate payment is collected for these bags. As a result, the consumption of plastic shopping bags dropped by almost 42% in the reporting period. Meanwhile, a reduced rate of natural resource tax for packaging made of bioplastics and oxy-degradable plastics was fixed to promote the use of more environmentally friendly materials.

For the most part, bio-waste is used for the purposes of biogas production. At the beginning of 2013, Latvia had 34 operational biogas plants having the total installed capacity approximating to 39 MW.

In **Lithuania**, use of the materials produced from bio-waste is encouraged in accordance with the requirements laid down in Order No D1-46/4-63 of 17 January 2012 of the Minister for Economy of the Republic of Lithuania “On approval of the procedure for the classification of production residues as by products”. On 3 May 2012, the “Requirements for Composting and Compost” were completed as commissioned by the Ministry of the Environment. One of the goals was to analyse the opportunities for the use of materials produced from bio-waste. In accordance with the measures proposed in the draft National Waste Management Plan for 2014–2020, the requirements for the use of compost produced from separately collected bio-waste are planned to be prepared. Individual composting and use of biodegradable waste is encouraged by a variety of measures.

In **Luxembourg**, a Grand Ducal regulation may establish quality standards for materials produced from bio-waste. These standards may vary according to the different areas of use of these materials. Failing Grand Ducal regulations, these standards are established in the operating permits of composting and biogas plants.

In **Malta**, since the compost of following anaerobic digestion of bio-waste removed from mixed waste is not of high quality suitable for the application on agricultural land, this compost is used as landfill cover and land recovery activities.
Poland did not provide a reply to this question beyond the general reply detailed in Section 3.12.1.

In Portugal, from a legal point of view, the compost obtained from the treatment of bio-waste is regarded as an organic agriculture [soil] improver and its placing on the market as a fertiliser requires prior authorisation by the competent authorities under Order No 1322/2006 of 24 November 2006. For the purpose of placing it on the market, the bodies have improved the techniques for producing the compost, in particular in terms of quality in the selection of raw materials, which makes it possible to improve the quality of the compost obtained and, in some cases, obtain certification for organic farming.

Romania did not provide a reply to this question beyond the general reply detailed in Section 3.12.1.

Slovakia did not provide a reply to this question beyond the general reply detailed in Section 3.12.1.

In Slovenia, no measures were taken to promote the use of environmentally safe materials produced from bio-waste in the reporting period. A new decree on the recovery of biodegradable waste and the use of compost or digestate is being drafted this year; it will address the requirement to ensure the quality of input waste entering the recovery process, the process of recovering this waste and the compost or digestate generated. It will also lay down the conditions under which compost or digestate becomes a product and loses the status of waste, since it makes sense to promote the use of high-quality digestate as agricultural fertiliser given the large number of biogas plants in Slovenia.

Spain did not provide a reply to this question beyond the general reply detailed in Section 3.12.1.

In Sweden plants that produce compost or digestate from separated bio-waste, including food waste from the food industry, can put quality labels on their products after being certified. Certification imposes requirements on the entire management chain from incoming waste to final product.

The certification system has been developed by the interest organization Avfall Sverige in consultation with the agriculture and food industry, compost and digestate producers, soil producers, authorities and research. The technical research institute of Sweden is the inspection body of this certification system. Around 90 percent of all digestate used in agriculture today is certified. The system has not had the same impact on compost. One reason could be that compost is primarily used in soil manufacturing and customers have not placed the same requirements on the product as the food industry has done on fertilizer

for agricultural production.

In the United Kingdom WRAP are carrying out an extensive programme of work to develop markets for digestate. This follows similar work on markets for compost. The digestate programme has three main elements:-
- Identifying new markets for digestate
- Demonstrating the benefits of digestate. The largest element of this work is the series of field trials that WRAP are carrying out on the safety and efficacy of using digestate in agriculture. Other trials are being done on the use of digestate in landscaping and in recreation (e.g. sports turf).
- Responding to stakeholder concerns about risks associated with the use of digestate through an extensive risk assessment programme. This includes the development of a bio-fertiliser matrix (similar in concept to the safe sludge matrix which has been used by the UK sewage treatment sector for many years).

In Scotland, the Scottish Government and Zero Waste Scotland are also working closely with WRAP to ensure that environmentally safe materials are produced from bio-waste.

In addition, the UK have developed quality standards for compost and digestate:

- Quality Protocol Compost - End of waste criteria for the production and use of quality outputs from composting; and
- Quality Protocol - Anaerobic Digestate - End of waste criteria for the production and use of quality outputs from anaerobic digestion.

These end of waste criteria define when compost and digestate is produced to high enough quality as to no longer be waste. The use of compost and digestate that does not meet these criteria is regulated under the Environmental Permitting system.

**Conclusion:**

19 Member States reported that they had either already implemented significant measures for the separate collection of bio-waste in 2010-2012, or were set to implement such measures in 2015 (Germany).

Of the outstanding six Member States, the Czech Republic and Ireland reported that there is limited collection occurring nationally, while Cyprus reported that it has been trialling a pilot project. Denmark reported that it has a high capture rate of garden waste but has no separate food waste collection, instead recovering food waste through the residual waste stream using mechanical and biological treatment technologies. Croatia indicated it has plans to establish bio-waste collection, but at the time of reporting had put no concrete measures in place to bring this into effect. The United Kingdom has established no separate collection on the overseas territory of Gibraltar.

20 Member States reported that they have taken adequate steps to encourage treatment of bio-waste that fulfils a high level of environmental protection. Three Member States (Croatia, Luxembourg and the United Kingdom) did not provide details of specific measures taken towards the environmentally sound treatment of bio-waste, while two Member States (Denmark and Poland) did not respond to the question.

19 Member States reported details of how they have promoted the use of environmentally safe bio-waste products.
Of the outstanding six Member States, Croatia referenced national legislation stating that rules for the safe use of bio-waste products should be laid down. Italy, Poland, Romania, Slovakia and Slovenia did not respond to the question.

3.13 Permits

3.13.1 Treatment in Permitted Facilities

Question 14 (i): How does the Member State ensure that waste is only treated by establishments or undertakings which have a permit complying with the requirements of Article 23 of Directive 2008/98/EC?

Article 23, which is the relevant article for this question, requires that any establishment or undertaking carrying out waste management must obtain a permit from the competent authority. Permits are to specify, among other things, the types and quantities of waste that may be treated, the methods that may be used in treating the waste, and any precautionary measures to be taken. Question 14 (i) asks Member States to explain how they ensure that waste is only treated in facilities which have been properly permitted under the stipulations of the Directive.

19 Member States fully detailed in their replies the systems they have in place to ensure that waste is only treated by properly permitted establishments or undertakings. The detailed replies are summarised below.

In addition Croatia and Germany both provided replies which do not sufficiently address the requirements of Article 23.

Four Member States (Austria, Bulgaria, the Czech Republic and Denmark) provided only very high level replies which referenced their national legislation but did not address the points contained in Article 23 of the Directive.

Member States replies are summarised below:

In Austria, in accordance with Article 15, paragraph 3 of the AWG 2002, waste may in principle only be stored or handled in approved plants. The conditions under which licenses are granted for treatment facilities meet the requirements laid down in Article 23 of Directive 2008/98/EC (Article 37ff AWG 2002). In addition waste collectors and handlers require a permit in accordance with Section 24A AWG 2002.

In Bulgaria, under Article 35(1) of the ZUO, the following is required for carrying out waste treatment operations:

1) a permit issued in line with the procedure established by Chapter Five, Section I of the ZUO; or
2) an integrated permit issued in line with the procedure established by Chapter Seven, Section II of the Environmental Protection Act.

The law requires that industrial, construction and hazardous waste be delivered and accepted solely on the basis of a written contract with persons holding a permit, an integrated permit or a registration document under Article 35 of the ZUO for the
relevant operation and a site for waste with the relevant code in line with the regulation on classification of waste.

In **Croatia**, the performance of waste management operations is regulated in Chapter VI of the Sustainable Waste Management Act (Articles 84–117). Under Article 84(1) of the Sustainable Waste Management Act: ‘A legal and natural person – tradesman – may, after obtaining the necessary permit, start carrying out waste collection operations through waste collection and emergency waste collection operations, and the operations of waste recovery, disposal or other types of waste treatment.’

The content of the permit is regulated by Articles 86 and 87. The necessary documentation for the permit or the modification of the permit is prescribed by Article 88. The permit issuance procedure is set out in Article 91. A condition for the issue of the permit is a Waste Management Study, required by Article 90:

“(1) A Waste Management Study is a collection of mutually harmonised documents and drawings aiming to prove, by describing the method of carrying out the relevant technological processes as functional and technological units of the material flow in the location, that requirements for carrying out a waste management operation and related technological processes and technical and technological requirements have been met, and that the safety and precautionary measures, limitations and obligations in monitoring emissions and control operation measures have been complied with.”

In accordance with Article 96(3), the permit review procedure shall be carried out within the time frame specified by the permit and the decision on the permit review, but at least once in five years.

In **Cyprus**, all establishments or undertaking waste treatment must have a permit in order to be allowed to treat waste according to Article 24 of the Waste Law. The permits are issued with a maximum of five year duration. Prerequisites for granting permit and the terms that have to be included in the permit, guaranties and insurances as well as exceptions are set in Articles 25, 26 and 28 of the Waste Law. All producers and holders of waste are obliged to give their waste to a licensed collector/treatment facility. Random inspections are taking place to verify this and fines are issued in cases of non-compliance. Finally the treatment facilities are obliged to keep records and submit yearly reports to the competent authority, describing the procedures followed for the management of waste, the waste quantities collected and treated, problems, changes, exports etc.

In the **Czech Republic**, the obligation to obtain a permit according to Article 23 is defined in Section 14 of the Waste Act. The sole exemption in the Czech Republic is contained in the provisions of Section 14 (2), which on condition of compliance with all other waste legislation requirements does not require a permit for the use of waste in an installation that is not primarily intended for managing waste, and if the waste complies, in terms of its composition and characteristics, with entry primary raw materials that are not waste.

In **Denmark**, undertakings and plants that treat, process or crush waste are subject to a general approval requirement in accordance with Article 53 of the Environmental
Protection Act and the Approval Order. Article 50 of the Environmental Protection Act and the Landfill Order contain provisions regarding the approval of landfill disposal sites, while Article 50(b) of the Environmental Protection Act contains provisions concerning the approval of waste incineration plants. Article 19 of the Environmental Protection Act also contains a provision which requires substances, products and materials that could pollute groundwater, soil and the subsoil not to be buried in the ground, discharged or placed on the soil or infiltrated in the subsoil without prior permission.

In **Estonia**, according to Section 73(1) of the Waste, a waste permit grants a person handling waste or waste producer the right to carry out one or several of the waste management operations or generate waste, and determines the requirements for exercising the right. Under Section 73(2) of the Act, a waste permit is required for: disposal of waste; waste recovery; collection or transport of hazardous waste, except the collection and transport of the waste generated by the activities of the persons themselves; collection or transport of waste metal generated and delivered by other persons with the purpose of further commercial distribution or recycling of the waste; waste transport organised by a local government; transport of municipal waste if carried out as a business or professional activity; generation of waste in the cases provided for in Section 75 of the Act; and operation of a waste disposal site.

In **Finland**, an environmental permit is required for all activities that pose a threat of environmental pollution. The Environmental Protection Act further specifies that all treatment facilities that recover or dispose of waste on professional basis or at installation scale need an environmental permit if the waste belongs to the scope of the Waste Act, unless specifically exempted from the permit requirement. According to Section 42 of the Environmental Protection Act, a permit may be granted only if the activity does not result in adverse effects on human health, other significant environmental pollution.

The Environmental Protection Act sets requirements on the content of environmental permits, including emission limit values, the prevention and limitation of emissions and the location of the site of emissions. When permit regulations are issued, the nature of the activity, the properties of the area where the impact of the activity appears, the impact of the activity on the environment as a whole, the significance of measures intended to prevent pollution of the environment as a whole and the technical and financial feasibility of this action shall be taken into account. Section 46 stipulates on monitoring and supervision. According to Section 52, depending on the matter concerned, environmental permits are issued either until further notice or for a fixed period. Permits granted until further notice must set the date by which an application for the review of permit regulations must be made and specify any reports that must be submitted in that connection (Section 55).

According to Chapter 5 the Waste Act of the Åland Islands an environment permit is needed for handling and treating waste, including preparing for recovery or disposal. The operators are inspected regularly.
In Germany, pursuant to § 35 paragraph 1 to 3 KrWG, plants for waste disposal (including treatment) require approval in accordance with the provisions of the Federal Pollution Control Act (BImSchG) or a planning permission or approval. The generic term "disposal" covers both recovery and disposal operations, and the EU legal concept of waste treatment (Art. 3, no. 14 WFD) shall be completely covered. In accordance with § 28 para. 1 sentence 1 KrWG, waste for disposal shall be treated, stored or deposited in the facility or facilities authorised. If waste is incinerated in industrial installations (e.g. in power plants or cement plants) this is only to be approved if the facility has a permit under the Federal Emission Control Act (BImSchG) and this permission notice covers the incineration of waste content.

In Greece, the establishments and undertaking that produce and manage waste operate only when the required permits are valid. Moreover, they are obliged to report annually the quantities of waste they produced / treated and where and how they treated / disposed them. That means that there is a statistical cross check of the quantities of waste. Additionally, on-site periodic and random inspections are carried out in the facilities of the waste producers, in the waste management facilities, and during collection / transport.

In Hungary, as a main rule, the Waste Management Act in force in the given period (Act XLIII of 2000, hereinafter: ‘the Waste Management Act’) stipulated that waste management activities can only be pursued upon obtaining the permit of the environmental authority, and – in its chapter on hazardous wastes – specifically reinforced that hazardous waste management activities can only be pursued upon obtaining the permit of the environmental authority and in accordance with the provisions of separate pieces of implementing legislation. The compulsory elements of permits were specified by the pieces of implementing legislation. Among the pieces of implementing legislation, we should specifically mention the Government Decree on the criteria for pursuing activities related to municipal wastes, and the Government Decree on the criteria for pursuing activities related to hazardous wastes.

Act CLXXXV of 2012 on Waste (‘the Waste Act’), which was prepared and published but did not enter into force in the given period, already determines the main content requirements for permits. As is the case with the Waste Act, Government Decree No 439 of 29 December 2012 on the registration and official permitting of waste management activities (‘the Permitting Decree’) was under preparation in the given period but did not enter into force. The Permitting Decree contains those requirements of the permitting procedure that are additional to the requirements of the Waste Act in a single piece of legislation.

In Ireland, Section 39 of the Waste Management Act provides that a person shall not dispose of or undertake the recovery of waste (including the treatment of waste) at a facility, save under and in accordance with the terms of a waste permit. Waste authorisations for the individual facilities can be either through a Waste Licence issued for large or higher-risk facilities (which include all landfill sites) under the Waste Management (Licensing) Regulations, or alternatively through a Waste Facility Permit issued by a local authority or a Certificate of Registration issued by a local authority or
the Environmental Protection Agency for smaller-scale and lower risk waste facilities under the Waste Management (Waste Facility Permit and Registration) Regulations.

In order to provide a means of certainty as to whether a facility requires a Waste Licence, a Waste Permit, a Certificate of Registration or none of these, the Environmental Protection Agency has been designated as the sole and final arbiter as to what form of waste authorisation (if any) is required by individual facilities. Regulation 11 of the Waste Management (Waste Facility Permit and Registration) Regulations sets out procedures.

Under the provisions of the Waste Management (Licensing) Regulations and the Waste Management (Waste Facility Permit and Registration) Regulations, a Waste licence, a Waste Facility Permit or a Certificate of Registration will not be granted to a person who is not a fit and proper person. This waste authorisation regime has been fully implemented in Ireland for waste facilities.

In Italy, the Government, in Article 208 of Legislative Decree No 152/2006, has determined the criteria for the authorisation of waste treatment and disposal installations. In particular, this article states that persons who intend to build and operate new installations for the disposal or recovery of waste, including hazardous waste, must submit the relevant application to the competent Region. The permits issued are declared to the Waste Registry, with details available from the Institute for Environmental Protection and Research (ISPRA), as well as being made public. The traceability imposed by the Italian Government even on non-hazardous waste guarantees that all waste is managed at authorised installations, since the waste generated must be transported with a special form identifying the destination facility. The details of all forms must be sent to ISPRA, which can then perform the necessary checks.

In Latvia, the Waste Management Law envisages that the collection, transfer, sorting, storage, recovery or disposal of waste is only permitted at sites intended specifically for these purposes. The Pollution Law (Annex I) and Cabinet Regulation No 1082 of 30 November 2010 “Procedure for Declaring Polluting Activities of Category A, B and C and Issuing Category A and B Pollution Permits” list waste management operations that require category A or B pollution permits depending on the capacity of the installation. Category A or B pollution permits are necessary for all waste disposal and recovery operations as well as waste storage installations if large quantities of waste are stored. Pursuant to the Waste Management Law, the waste manager must obtain a permit of the State Environmental Service to carry out the collection, transportation, transfer, sorting or storage of waste before commencing any such operations. More detailed permit requirements are listed in Cabinet Regulation No 703 of 13 September 2011 “Regulation on the Procedure for Issuing and Annulling Waste Collection, Transportation, Transfer, Sorting or Storage Permits as well as the State Duty and the Procedure for Paying the State Duty”.

In Lithuania, to reduce the negative environmental and climate impact of stationary objects of economic activity and prevent the transfers of pollutants from one
environmental medium to another, the integrated pollution prevention and control scheme is laid down in the Rules unifying the measures for the protection of water, air, soil (as well as the underground) and climate, waste management and reduction of noise and smells of economic activities.

Operators who are obliged to obtain an Integrated Pollution Prevention and Control Permit (hereinafter “the Permit”) under the procedure established in these Rules must comply with these Rules. The Rules set out the rights and obligations concerning participation, issuance, renewal, correction or withdrawal of Permits by the authorities responsible for the harmonisation of drafts of Permits and issuance of Permits and by the public concerned. IPPC permits are issued, renewed and corrected by Regional Environmental Protection Departments under the Ministry for Environment. The permit is issued for an indefinite period of time; however, when issuing or renewing the Permit based on the information provided in the operator’s application, having taken into account and assessed the prospects for economic activity, the REPD may determine when the Permit must be renewed.

In **Luxembourg**, establishment or undertakings carrying out operations listed Annexes I and II of the Act of 21 March 2012 are subject to the approval of the minister, as are the sites or facilities in which such undertakings are carried out and substantial modifications to these sites or facilities. Furthermore, imports and exports of waste from and to non-EU countries for either recovery or disposal are also subject to the approval of the minister.

Permits issued under the law on classified establishments are physically combined with the permit required under the Act of 21 March 2012. Where an institution, enterprise, installation or operation is included in Class 4 of the legislation on classified establishments, it is exempted from authorisation under the provisions of law. However, it is subject to registration under the terms of Article 32 of the Law of 21 March 2012.

In **Malta**, Regulation 12 laid down in The Waste Regulations (LN184/11; as amended) provides that waste producers and other waste holders who carry out the treatment of waste himself or has the treatment handled by a dealer or an establishment or undertaking which carries out waste treatment operations or arranged by a private or public waste collector should ensure that the waste is managed in accordance with Part 1 of Schedule 5 and the conditions attached to any permit. Furthermore, the said regulation provides that any original waste producer has the duty to ensure that his/her waste is managed by a person who is in possession of a permit and that no person shall deposit any waste except in a waste management facility which is authorised to receive that waste by virtue of a permit. It is also a requirement in environmental permits and IPPC permits for facilities which are not part of the waste management sector, to only use authorized waste management facilities in disposing of their waste. Anyone in breach of these regulations shall be prosecuted in accordance with regulations 34, 35 and 36 laid down in The Waste Regulations (LN184/11; as amended).

In the case of hazardous waste, every transfer has to be permitted in accordance with sub-regulation (3) of regulation 14 laid down in The Waste Regulations (LN184/11; as amended).
amended). That is, prior to transfer, the holder is to apply for a consignment permit with the Malta Environment and Planning Authority. The Authority assesses the permit application, with a particular emphasis on the waste to be transferred and the final destination. If the final destination is not permitted for that particular waste, than a consignment permit is not issued and the waste holder is to resubmit a new application including the details of the final destination which is permitted to handle such waste. A consignment permit is only issued once all the requirements stipulated in the application form are correctly filled in.

In **Poland**, the supervisory body responsible for environmental protection is the Environmental Protection Inspectorate, which operates under the Act of 20 July 1991 on Environmental Protection Inspection (Journal of Laws of 2007, No 44, item 287, as amended). In accordance with Article 2(1) of the above-mentioned Act, the Environmental Protection Inspectorate supervises entities which use the environment within the meaning of the Act of 27 April 2001 — Environmental Law (Journal of Laws of 2008, No 25, item 150, as amended). An entity using the environment is understood as:

1) an entrepreneur within the meaning of Article 4 of the Act of 2 July 2004 on Freedom of Economic Activity (Journal of Laws of 2007, No 155, item 1095 and No 180, item 1280) and persons engaged in agricultural production in the area of cultivation, animal production, horticulture, vegetable farming, forestry and inland fishery as well as sole medical practitioners and specialist medical practitioners.

2) An organisational unit which is not an entrepreneur within the meaning of the Act of 2 July 2004 on Freedom of Economic Activity.

3) A natural person not the entity referred to in point (1) that uses the environment to the extent that this requires a permit.

If any infringements are found, the Provincial Environmental Protection Officer is required to apply a penal sanction in the form of either a fine or an administrative financial penalty.

In 2012, the Environmental Protection Inspectorate carried out a total of 30,176 inspections, including 13,892 inspections of documents and 16,284 field inspections. These resulted in:

- 2,353 fines;
- 7,035 follow up recommendations;
- 4,400 appeals to other authorities;
- 85 applications to law enforcement authorities;
- 44 applications to courts; and
- 1,231 financial penalties, totalling in excess of PLN 62 million.

In **Portugal**, Decree Law No 178/2006 of 5 September 2006 laid down new rules on the permit requirements for waste management operations, repealing Decree Law No 239/97 of 9 September 1997 and Order No 961/98 of 10 November 1998. It was intended with the publication of that decree law to reform the mechanism for prior authorisation in order to bring it into line with the arrangements in force under the legal
systems of other Community partners, making waste management operations subject to a rapid prior administrative control procedure which concludes with the issue of a permit, and to administrative procedures which ensure effective monitoring of the activity carried out following the issue of such a permit. That law introduced mechanisms to adapt the permits to the technological innovations which are constantly occurring in this sector and in response to any negative effects on the environment which were not provided for at the stage when the permit was issued; it also introduced procedures intended to adjust to vicissitudes in the activity of waste management, such as the transfer, amendment and renewal of the permits.

The permit scheme currently established does not, however, lose sight of the real need to simplify the administrative relationships which the State establishes with individuals. Accordingly, the time-scale established for the general permit procedure was reduced and provision was made for the application of a simplified permit scheme. With the publication of Decree Law No 73/2011 of 17 June 2011, which amended and republished Decree Law No 178/2006 of 5 September 2006, the simplified permit scheme enables a permit to be issued within a maximum of 30 days.

The supervisory bodies and police authorities carry out in loco checks on the existence of the permit documentation necessary for the activity carried out by operators. There is also a computer application - Sistema de Informação do Licenciamento de Operações de Gestão de Resíduos [Information System on Permits for Waste Management Operations] (SILOGR) - whose main objective is to facilitate access to relevant data on waste management operations, to ensure that waste is sent to the appropriate facilities and is properly managed. The data provided do not replace or prevail over the permits/authorisations issued by the respective licensing authorities.

In Romania, all establishments or undertakings that carry out waste treatment activities are required to have an environmental permit/integrated environmental permit issued by the competent environmental authorities. The environmental permit/integrated environmental permit has to include at least the following:

1) types and amounts of waste that can be treated;
2) technical and any other requirements applicable to the site in question for each type of authorised operation;
3) safety and prevention measures that have to be taken;
4) the method that has to be applied for each type of operation;
5) monitoring and control of the operations, as appropriate; and
6) closing and subsequent maintenance, as appropriate.

The lack of an environmental permit is an offence and is sanctioned with a 20,000–40,000 lei fine in case the legal persons perform waste treatment activities.

In Slovakia, in the period of 12/12/2010 to 31/12/2012 Section 7(1) of the Waste Act specifies a list of activities for which a permit issued by a competent waste management public administration authority is needed. Section 7(2-6) of the Waste Act specifies the contextual requisites of these permits. Section 8(2) of the Waste Act specifies the
activities for which an authorisation is needed in form of a decision. Section 13 of the Waste Act specifies the requisites needed for authorisation decisions.

At the same time, sect. 18(1) of the Waste Act states that every person shall be obliged to handle waste or otherwise treat it in compliance with this act; the one who becomes obliged by the decision or permit issued on the basis of this act must handle or otherwise treat waste also in line with the said decision or permit. Section 21 of the Waste Act sets out obligations of the operators of waste recovery or waste disposal facilities.

Pursuant to sect. 78(2)(a) of the Waste Act a fine of up to 16,596 Euro may be imposed by a competent waste management public administration authority to legal or natural person who carries out trade activities, involving activities needing a permit pursuant to sect. 7 or authorisation pursuant to sect. 8, without the permit or the authorisation or contrary to them.

In Slovenia, Article 36 of the Decree on Waste states that a waste treatment provider may treat waste if it has an environmental permit for the recovery or disposal of waste under the Environment Protection Act. Checks are made during the administrative procedure to ensure that the conditions applying to the issuing of the permit are being met. The introduction of electronic record sheets in 2013 – the new IS-Odpadki (Waste Information System) – has established additional controls of waste streams. Under Article 54 of the Decree on Waste, all persons that manage waste must be registered as users of IS-Odpadki. Upon registration, a collector’s entry in the register of waste collectors is checked; for treatment providers, a check is made of the validity of the environmental permit. Under Article 26 of this decree, a record sheet is valid if it is approved, by means of an electronic signature, by the sender/original waste producer or other waste holder, and by the recipient/collector if the waste is received by a collector or by a treatment provider if the waste is received by a treatment provider or trader. These two provisions make it practically impossible for illegal shipments of waste to exist within the Republic of Slovenia.

In Spain waste treatment operations may only be carried out by authorised establishments or undertakings, in accordance with the provisions of Article 27 of Law 22/2011 of 28 July, on the permitting of waste treatment operations. This article sets out that:

“Facilities where waste treatment operations are going to be carried out, including storage in the scope of collection awaiting treatment, as well as the enlargement, substantial modification or movement of such facility, are subject to the scheme of permitting by the competent environmental body of the Autonomous Community in which they are located.

Likewise, natural or legal persons must obtain permits to carry out one or several waste treatment operations. These permits shall be granted by the competent environmental body of the Autonomous Community in which the applicants reside, and they shall be valid throughout the whole of Spain. Autonomous Communities may not make the permitting envisaged in this paragraph
conditional on the requester having facilities for the treatment of waste in their region.

In any cases where the physical or legal person applying for the permit to carry out one or several waste treatment operations owns the treatment facility where these operations are going to be carried out, the competent environmental body of the Autonomous Community where the facility is located shall grant just one permit that covers the facility and the treatment operations.

The permit applications envisaged in this article shall contain at least the information indicated in Annex VI.

The permits envisaged in this article shall contain the elements described in Annex VII.

In order to grant these permits, the competent administrative bodies shall carry out the prior inspections and checks required in each case, either themselves or with the support of duly recognised partner establishments, in accordance with the rules applicable to them. In particular, they shall check:

The suitability of the facilities for the planned treatment operations therein.

Compliance with the technical, professional and any other requirements for carrying out this activity, by the undertaking that is going to carry out the waste treatment operations.

That the planned treatment method is acceptable from the perspective of protecting the environment. In particular, the permit shall be refused when the method does not fit with the principles of protecting human health and environment envisaged in Article 7.

That the incineration or co-incineration with energy recovery operations are carried out with a high level of energy efficiency; in the case of treating domestic waste, the level of energy efficiency must match the levels set in Annex II to this Law.

The permits included in this article may be integrated into the permits obtained pursuant to other Community, national or Autonomous Community legislation, provided that the requirements laid down in this Law are fulfilled.

The permit envisaged in paragraph 1 of this article for waste treatment facilities shall be integrated into the integrated environmental permits granted in accordance with Law 16/2002 of 1 July on integrated pollution prevention and control, and shall include the requirements set out in this article as laid down by Article 22(1)(g) of Law 16/2002 of 1 July. The competent authority shall incorporate the pertinent information in its waste production and management register in the terms of Article 39.

The permits envisaged in this article shall be granted for a maximum period of eight years, after which they shall be renewed automatically by successive
periods, and they shall be registered by the Autonomous Community in the waste production and management register.

The issuing of permits shall be subject to prior checks, by the competent authority, that the waste treatment operations and the facilities in which they are carried out comply with the provisions of this Law and its implementing rules.

The maximum period for issuing the decision that puts an end to the permitting procedures envisaged in this article shall be ten months. If the period envisaged has elapsed without an express decision having been notified, the application submitted shall be deemed to have been rejected.

-By means of the periodic ex-officio inspections carried out by bodies such as SEPRONA [Nature Protection Service] at the facilities and establishments that treat waste, and by means of inspections carried out by the competent authorities of the Autonomous Communities."

All Autonomous Communities carry out inspections prior to granting permits, in addition to having established annual inspection plans.

In Sweden Chapter 2 of the Environmental Code contains general rules of consideration etc. that all establishments and persons pursuing an activity or taking a measure shall comply with. Chapter 9 of the environmental Code and chapter 29 of the Ordinance on environmental proceeding regulates the permit requirements for environmentally hazardous activities, including establishments for waste treatment. Some provisions, concerning environmentally hazardous activities including the handling of hazardous substances, are found in the Ordinance on environmentally hazardous activities and health protection.

The provisions in chapter 22 sections 25-25c and chapter 19 section 5, the Environmental Code gives the requirements on the content of the permits.

Compliance is ensured mainly through various enforcement actions, in accordance with the provisions of Chapter 26, Environmental Code and with provisions in the Ordinance on Environmental Inspection and Enforcement Environment Enforcement.

In the United Kingdom Regulation 12 of the Environmental Permitting Regulations 2010 requires the recovery or disposal of waste to be carried out under a permit. It states that:

"12.—(1) A person must not, except under and to the extent authorised by an environmental permit operate a regulated facility (carry on a waste operation)."

The environmental permits granted by the Competent Authorities stipulate the types and quantities of waste that may be handled and impose other conditions in order to protect human health and the environment. Waste operations also require the appropriate planning permission for the development and use of land. The 2010 Regulations also include provisions for the variation, transfer and surrender of permits and a system of appeals. Under the Waste and Contaminated Land (Northern Ireland) Order 1997 (as amended) and the Waste Management Licensing Regulations (Northern
Ireland) 2003 (the 2003 Regulations), anyone who treats, keeps, disposes or transports waste or who acts as a broker of or dealer in waste has to have a licence to do so. Failure to have a waste licence/permit is an offence. Failure to comply with the conditions of a waste licence/permit is also an offence.

In Gibraltar Article 23 is transposed by the Public Health Act and the Transfrontier Shipments of Waste Regulations 1995.

In Scotland, this requirement is covered by section 33(1)(a) and (b) of the Environmental Protection Act 1990. The Waste Management Licensing (Scotland) Regulations 2011 (WMLR) Schedule 4 paragraph 8 deals with matters to be covered by permits.

The Competent Authorities are under a duty to carry out inspection of the facility to ensure compliance with the conditions of the permit.

3.13.2 Exemptions from Permitting Requirements

Question 14 (ii): To what extent has the Member State derogated from the permit requirement and which provisions have been laid down to ensure that waste treatment exempted from the permit requirements are in line with the principle of environmentally sound waste management? Has the Member State made use of the Commission's guidance on permitting and inspections?

Articles 24 and 25, which are the relevant articles for this question, concern the possibility of exemptions from the permitting requirements contained in Article 23. Article 24 allows that Member States may make such exemptions for establishments in the case of the disposal of their own non-hazardous waste at the place of production, and for the recovery of waste. Article 25 (1) stipulates conditions for such exemptions being made. These are that general rules should be made concerning the types and quantities of waste that are treated in exempted activities, and that these rules ensure that waste is treated without detriment to environmental or human health (i.e. Article 13), and that best available techniques (BAT) should be used in the case of disposal operations. Article 25 (2) goes on to state that specific conditions should be provided in any cases of exemptions concerning hazardous waste, including hazardous substance and emission limit values where appropriate.

21 Member States either reported that no exemptions have been made or else detailed any derogations which have been taken and demonstrating how existent exemptions have been made in accord with the requirements of Article 25. Of these, however, it should be noted that Hungary's current legislation only came into force in 2013 with the introduction of the Waste Act. The detailed replies are summarised below.

In addition there was a lack of clarity in Ireland’s reply as to whether the exemptions it reported it has allowed in regard to non-hazardous waste disposal only relate to the disposal of waste at the place of production. Italy reported that exemptions have been made, but did not to provide any detail of provisions it has put in place beyond paraphrasing the wording of Article 25. Luxembourg’s reply also lacked detail, as it did not illustrate how sound environmental practice is observed with regard to the exemptions it has put in place. Denmark submitted only a high level reply which
indicated that exemptions have been made without providing detail on how it ensures that exempted sites are managed in an environmentally sound manner.

**Member States replies are summarised below:**

In **Austria**, there are no exceptions to permitting requirements. As soon as waste operations are carried out, the principles of environmentally sound waste management must be observed (in particular paragraph 15 AWG 2002). In addition, waste collectors and handlers in Austria must be registered (EDM.gov.at).

In **Bulgaria**, under Article 35(2) of the ZUO, a permit is not required for a range of activities, including: the collection and preliminary storage of waste on the site where it was produced, including ferrous and non-ferrous metal waste (FNFMW); operations for recovery of non-hazardous waste coded R 3, with the exception of gasification and pyrolysis, using the components as chemicals, R 5, R 11, R 12 and R 13 within the meaning of Annex 2 to Item 13 of § 1 of the Supplementary Provisions of the ZUO, with the exception of FNFMW, metal packaging waste, waste electrical and electronic equipment (WEEE), waste batteries and accumulators (WBA) and end-of-life vehicles (ELV); and take-back operations within retail premises for ordinary packaging waste for which a deposit system or another re-use system has been organised, batteries and accumulators, electrical and electronic equipment (EEE) and tyres.

Registration and a document issued in line with the procedure established by Chapter Five, Section II of the ZUO are required for carrying out the operations referred to in Items 2 to 5 of Article 35(2) of the ZUO, and registration and a document issued in line with the procedure established by Chapter Five, Section IV of the ZUO are required for the operations referred to in Item 9. A permit/registration document for carrying out waste treatment operations under the ZUO is issued by the director of the RIEW covering the area in which the operations are carried out or by the director of the RIEW covering the area in which the applicant’s registered office is located, as the case may be. At least once a year, the regional inspectorates of environment and water inspect the persons holding a permit under Article 67 or 78 of the ZUO to ascertain whether the conditions for waste management comply with the conditions of the permit as issued and whether the requirements of the ZUO and the statutory instruments of secondary legislation for its implementation are met.

In **Croatia**, the right to exemption from Article 24 of Directive 2008/98/EC has not been exercised.

In **Cyprus**, there are no derogations from the permit requirements. Regarding the Commission’s guidance on permitting and inspections, Cyprus is taking into account the document’s guidelines.

In the **Czech Republic**, the most common case is the use of waste earth for landscaping in accordance with Act No 183/2006, the Building Act. However, this earth must also comply with all the very strict requirements of Decree No 294/2005, on the conditions of depositing waste in landfills and its use on the surface of the ground. Control over compliance with legal regulations in the area of waste management is performed
primarily by the Czech Environmental Inspectorate, see point 17 of the Implementation Questionnaire.

In **Denmark**, a number of orders have been issued which grant exemption from the requirement for permission pursuant to Article 19 of the Environmental Protection Act, as general guidelines have been established concerning environmentally appropriate waste management. This concerns the Waste Product Order, the Waste-to-Soil Order and the Bioash Order. These orders are in accordance with the provisions of Articles 24 and 25, according to which the recovery of waste may take place without any specific permission if general regulations are established pursuant to Article 13.

Many smaller waste treatment plants which operate as recovery plants are however not subject to the approval obligation pursuant to Article 33 of the Environmental Protection Act, e.g. small re-use sites, small scrap sites and sludge storage sites (plants that receive less than 30 tonnes per day), as well as small biogas and composting plants. These smaller plants which operate as recovery plants are not included in the list of enterprises that are subject to the approval requirement in the Approval Order, but are currently subject to municipal inspections and are covered by Article 42 of the Environmental Protection Act concerning orders and a ban on pollution from other activities. With the aim of ensuring full compliance with Articles 23–25 among these smaller recovery plants, **Denmark** has begun work on one or more new industry statutory orders which will require small plants to comply with some of the provisions applicable to large plants. **Denmark** has not made use of Commission’s guidelines on permitting and inspections.

In **Estonia**, According to Section 73(3) of the Waste Act, a person who holds or is required to hold an integrated environmental permit for the activity specified in Section 73(2) or 75 of the Act does not need a waste permit for a plant covered by the integrated environmental permit. Under Section 73(4) and (41) of the Act, a waste permit is not required from natural persons who handle the waste produced by their households themselves in accordance with the requirements of the Act, upon collection and transport of waste in the course of rescue work by the Rescue Board, or for the collection and transport of waste metal generated and delivered by other persons with the purpose of further commercial distribution or recycling of the waste.

Furthermore, Minister of the Environment Regulation No 21 of 21 April 2004 ‘Requirements for the recovery or disposal at the place of production of certain types and quantities of non-hazardous waste’ has been established, upon compliance with which a waste permit is not required for handling waste. According to Section 74(2) of the Waste Act, certain persons are required to notify the Environmental Board of the proposed activities through registering the activities by sending a notice to the Environmental Board no later than two weeks before commencing the handling of waste. The Member State has made use of the Commission’s guidance on permitting and inspections.

**Finland** has exempted the use of the following waste materials from the permit requirement:
• Crushed concrete as well as fly ash, bottom ash and sands from fluidized beds originating from power plants using coal, wood or peat, if these wastes are used in earth construction (Government Decree 591/2006);

• asphalt waste and coal fly ash in production of new asphalt (Government Decree 846/2012);

• wastes generated in agriculture and forestry if they consist only natural material harmless to human health, and if the waste is used in agriculture and forestry (Environmental Protection Act 86/2000, Section 30 a);

• green waste comprising natural material harmless to human health, generated in agriculture and forestry if the waste is recovered in energy production (Environmental Protection Act 86/2000, Section 30 a); and

• wastewater sludge, septage or dry closet waste, treated in a manner that renders the waste harmless, or harmless ash or slag, if the waste is the recovered and used as fertilizer in accordance with the Fertiliser Product Act (539/2006) (Environmental Protection Act 86/2000, Section 30 a)

Only such waste that fulfils the criteria set in the above mentioned legislation is exempted from the permit requirement. The criteria are set depending on the type of waste and recovery operation. For example, Government Decree 591/2006 on the use of certain waste materials in earth construction defines the areas where the waste may be used, sets conditions for the allowed use of the waste, sets maximum limit values for contaminants in the waste, and regulates the quality management and supervision of the operation. The responsible supervision authorities that carry out the inspections are the same as for licensed operations: the Centres for Economic Development, Transport and the Environment (ELY-Centres) which are State authorities, and municipal environmental protection authorities. The division of jurisdiction is dictated by the size and the type of the operation. (See also reply to question 17.)

The permit requirement in the Åland Islands is exempted for untreated wood waste and waste generated in agriculture and forestry according to Sector 28b Waste Act 1981:3 of the Åland Islands. There is also an exemption for crushed concrete, fly ash, bottom ash, asphalt waste and tar asphalt waste, if these wastes are used in earth construction, the Decree 2010:79. The Commission's guidance on permitting and inspections has not been used.

**Germany** has not made use of the exemption under Article 24 of the Directive.

**Greece** has made no such exemptions.

In **Hungary**, pursuant to the Waste Management Act in force in the given period, business operators had to obtain permits for waste transporting activities pursued on a professional and regular basis only. The Waste Act provides a different and narrower definition for the scope of exceptions: when a natural person using the estate transports separately collected household wastes to a waste collection point, waste collection yard, reception site or waste treatment facility; and when a producer or distributor transports wastes subject to reception obligation to a waste treatment facility. Of course, in the two cases specified in the Waste Act, the general provision thereof, such as Article 4
shall apply: ‘All activities shall be planned and carried out in a manner to ensure minimal impact on the environment...’ Pursuant to the Waste Act, no other waste management activity can be exempted from the permitting requirements. In comparison with the Waste Management Act, the registration and permitting of dealers and brokers in accordance with the provisions of the Waste Management Directive is another significant change in the Waste Act.

**Hungary** made use of the Commission’s guidance on permitting and inspections when drawing up the Permitting Decree. On the one hand, similar to the guidance, the Permitting Decree has a thematic structure and has separate provisions determining the contents of applications necessary for the permit applications for individual operations and the contents of the activity permit. On the other hand, although the listing provided for the operations is not as detailed as the guidance, it is thorough and divided into points similar to the structure of the guidance. Pursuant to the Waste Management Act and the Waste Act, it is prohibited to pursue activities without permits. The sanctions are contained in the reply to Question 18 (fines, infringements, criminal law).

In **Ireland**, Section 39(4) of the Waste Management Act provides that the Minister may make Regulations that the requirement for a Waste Permit shall not apply in respect of the recovery or disposal in a specified manner of a specified class or classes of waste, provided that the person carrying out the recovery or disposal of the waste complies with specified general binding rules in relation to the carrying out of such recovery or disposal. Regulation 6(1) and Regulation 6 (2) of the Waste Management (Facility Permit and Registration) Regulations provide that a person shall be derogated from the obligation to hold a Waste Permit in respect of a waste recovery or disposal activity specified in Part II of the Third Schedule of the Regulations provided that:

> “the person carrying on the waste activity holds a valid Certificate of Registration in respect of the activity that has been granted by the Agency or by the local authority in whose functional area the facility is located;

> the waste activity is being carried on in accordance with the General Binding Rules specified in the Fourth Schedule of the Regulations; and

> the waste activity complies with the general requirements to ensure that waste is recovered or disposed of without endangering human health and without using processes or methods which could harm the environment, and in particular:

> without risk to water, air or soil, or to plants or animals;

> without causing a nuisance through noise or odours; and

> without adversely affecting the countryside or places of special interest.”

**Italy** has exercised the option of granting exemptions as specified in Article 214 of the above-mentioned Legislative Decree No 152/2006. In particular, Italy has introduced simplified procedures for certain specific waste streams for which the source and properties of the waste, the quantities, processes and treatment methods as well as the properties of the recovered products are established by decrees of the Minister of the
Environment. The recovery operations described in the above-mentioned decree must be declared to the competent authority.

**Latvia** did not derogate from the waste management permit requirement during the reporting period.

**Lithuania** has not derogated from the requirements of directives including the Waste Framework Directive to have a permit for waste management activities. Annexes 1 and 2 to the Rules on the Issuance, Renewal and Withdrawal of Integrated Pollution Prevention and Control Permits (reference to the document) set out the criteria and amounts (volumes) that define the mandatory requirement to have a permit for separate waste management activities. The aforementioned document (Annex 9) lays down provisions on waste management which is not subject to the requirement to have a permit:

1) The list of such non-hazardous waste generated in the course of economic activities whose management does not require a permit and the maximum amount of waste generated per year are provided, management, recycling or disposal options, examples of waste elimination are given.

2) The Environmental Protection Agency prepares inspection questionnaires which include mandatory questions about waste management.

3) Inspections cover all aspects relating to waste management in the company: waste generation, recovery/recycling/regeneration, and disposal.

4) The primary focus, both in drawing up the aforementioned list and in performing inspections, is on the technological capacity of the company, which is not subject to the requirement to have a permit, to eliminate its non-hazardous production waste with minimal impact on environmental compartments.

**Lithuania** made use of the Commission’s guidance on permitting and inspections as well as all IMPEL recommendations in IMPEL project “Requirements for Waste Management in Environmental Permits” (a project carried out by **Finland**).

In **Luxembourg**, where companies are generating material through their own production processes that is not for sale, this is subject to a simple registration with the competent administrative institution.

In **Malta**, Regulation 26 laid down in The Waste Regulations (LN184/11; as amended) provides establishments or undertakings and activities laid down in Schedule 4 shall be exempt from the requirements laid down in sub-regulation (1) of regulation 19.

Furthermore, regulation 27 provides that the competent authority maintains a register of establishments and undertakings which collect or transport waste on a professional basis, dealers and brokers and establishments or undertakings which are subject to exemptions from the permit requirements pursuant to regulation 26, in accordance with The Waste Management (Activity Registration) Regulations, 2007 (LN106/07). The latter ensures that waste is management in a manner that does not pose a threat to human health and the environment. The Competent Authority carries out a risk-based planned schedule of inspections for all permitted waste management facilities, in accordance with RMCEI.
In **Poland**, in the reporting period, in accordance with the Act of 27 April 2001 on Waste (Journal of Laws of 2010, No 185, item 1243), a waste producer engaged in waste recovery, disposal, collection or transport was exempt from the obligation to obtain a permit for these activities if he had obtained a permit for waste generation or a decision approving a hazardous waste management programme (Article 31(1)). Moreover, a waste holder who combined waste recovery or disposal with waste collection or transport was exempt from the obligation to obtain a permit for waste collection or transport (Article 32(1)).

The Environmental Protection Inspectorate’s supervisory activities are uniform across the country and were established on the basis of rules developed at the Chief Inspectorate of Environmental Protection, including model forms used for inspection and follow-up purposes. These take account of Recommendation 2001/331/EC of the European Parliament and of the Council providing for minimum criteria for environmental inspections in the Member States. The ‘Manual for inspections and follow-up activities carried out by Environmental Protection Inspection bodies’ was in force until 2010. It consisted of two parts: Part I – recommendations concerning inspections and Part II – model documents drawn up by an inspector during an inspection. A New Control System, which also takes account of Recommendation 2001/331/EC of the European Parliament and of the Council, was developed under Project PL0100 ‘Increase of the operating efficiency of the Environmental Protection Inspectorate drawing on Norwegian experience’ implemented in the period 2007–2010. **Poland** did not make use of the Commission’s guidance on permitting and inspections.

In **Portugal**, no technical standards have been drawn up which could constitute an exemption from obtaining a permit pursuant to Article 20 of Decree Law No 73/2011 of 17 June 2011.

**Romania** has not derogated from the permit requirement.

In **Slovakia**, the permit requirement may be derogated from in cases involving waste recovery facilities with the annual compost production not exceeding 10 tons, through implementing the provision of sect. 2(16) of the Waste Act whereby such facility shall not be deemed a waste recovery facility. Objective of this provision was to support development of composting activities through administrative facilitation aiming at not requiring a permit to run these facilities. However, due to the fact that the term "waste recovery installation" has not been placed appropriately, an adjustment was effected in that the said part from sect. 2(16) of the Waste Act was moved to sect. 7 therein in order to clarify that no permit shall be required to operate such a facility and that the other provisions of the law have not thus been derogated and are still binding. **Slovakia** has not made use of the Commission’s guidance on granting permits and on inspections.

In **Slovenia**, an environmental permit is a precondition for the recovery or disposal of waste. The Environment Protection Act does not lay down any derogations from the requirement to acquire an environmental permit. The Commission’s guidelines were not made use of for the issuing of environmental permits during the reporting period. The Environment and Nature Section of the Inspectorate of the Republic of Slovenia for...
Agriculture and the Environment has, up to now, consistently followed the Commission’s guidelines on inspections.

In Spain the possibility of exemptions from the permit requirements is laid down in Article 28 of Law 22/2011 of 28 July:

“Article 28. Exemptions from permit requirements.

Establishments or undertakings that dispose of their own waste in the place of production or that recover non-hazardous waste may be exempt from authorisation.

In order to grant the exemptions from permitting envisaged in the paragraph above, general rules shall be laid down, in respect of each type of activity, specifying the types and quantities of waste that may be covered by this exemption, and the method of treatment to be used.

These rules shall ensure that the treatment of the waste shall be carried out without putting the health of persons at risk and without harming the environment. In the case of the disposal operations set out in paragraph 1, these rules must take into account the best available technologies.

The rules envisaged in the paragraph above shall be approved by order of the Minister of Environment and Rural and Marine Affairs, once the draft has been analysed by the coordinating committee, and the European Commission shall be informed of this.”

The possibility of exemption has not been used since this Law was passed. The guides published by the European Commission are being used by the competent authorities of the autonomous communities in the permitting and inspection procedures.

In Sweden no such derogations have been made.

In the United Kingdom establishments or undertakings that carry out certain low risk waste disposal or recovery operations can be exempt (under Article 24 of the WFD) from the need to hold an environmental permit. Exempt waste operations (recovery and disposal) are provided under regulation 4 of the 2010 Regulations. The general requirements including the requirement to register exempt waste operation with the competent authority (Article 26) are set out in Schedule 2 and the descriptions of the exempt activities and rules for each exempt activity are set out in Schedule 3 to the 2010 Regulations in England and Wales. The exempt waste operations are divided into those relating to the use, treatment, storage and disposal of waste. Schedule 2 to the 2003 Regulations in Northern Ireland contains parallel provisions. In Scotland, Schedule 1 of the WMLR indicates what activities are exempt from full waste management licensing. A similar approach to that used in England for ensuring compliance is used.

Part 4 of the 2010 Regulations describes the enforcement powers of the regulator in ensuring compliance with the regulations and permit conditions. Exempted waste activities are also subject to appropriate periodic inspection. In England and Wales the 2010 Regulations include the duty on regulators to undertake appropriate periodic
inspections of regulated facilities (regulation 34(2)) and exempt waste operations (Schedule 2, paragraph 15). Similar inspections are legislated for elsewhere in the UK.

Where breaches of the permit or waste exemption occur, the Competent Authority, as appropriate, works with the operator to bring about compliance. Where compliance cannot be achieved, the Competent Authority exercises its powers and takes appropriate enforcement action which includes the suspension and revocation of permits or prosecution. The Competent Authority takes enforcement action in accordance with its published enforcement and sanctions guidelines. In the case of exempt waste activities, failure to meet the rules of the exemptions can lead to the removal of the entry from the register of exempt waste activities.

Conclusion:

19 Member States have reported that they have implemented legislation to ensure that waste is treated by only properly permitted facilities in 2010-2012.

Of the outstanding six Member States, Croatia and Germany both reported that waste treatment facilities must have permits, but they did not address in full the requirements of Article 23 of the Directive. Austria, Bulgaria, the Czech Republic and Denmark gave brief replies that did not respond to all points of the relevant Article.

With regard to exemptions from the permitting requirements of Article 23, a total of 21 Member States reported that they either have no exemptions in place in 2010-2012, or else that the exemptions they have put in place are in line with the conditions on exemptions stipulated by Article 24 and Article 25.

Of the outstanding four Member States, Ireland’s reply did not report on the scope of the exemptions it has made. Italy reported that exemptions have been made, but provided no further details. Luxembourg’s reply did not address the implications of the exemptions it has made on continued, sound environmental practice. Denmark, Ireland, Italy and Luxembourg all did not provide fully detailed replies explaining how the environmental performance of exempted sites is assured.

3.14 Waste Management Plans (WMP)

3.14.1 Preparation of a Waste Management Plan (WMP)

Question 15 (i): Have waste management plan(s) been drawn up in order to attain the objectives referred to in Articles 1, 4, 13 and 16 of Directive 2008/98/EC? Please provide a link to the publically available website on which they are placed. Has the Member State made use of the Commission’s guidance on how to prepare a waste management plan?

Article 28, which is the relevant article for this question, requires that Member States establish waste management plans (WMPs) in accordance with Articles 1 (the scope of the Waste Framework Directive), 4 (the waste hierarchy) 13 (protection of human and environmental health) and 16 (the principles of self-sufficiency and proximity). These plans are to cover such considerations as the types and quantities of waste being
generated, an assessment of existing collection schemes and of new collection schemes, and a review of planned waste management technologies and policies. **Question 14 (i)** seeks to establish whether Member States have drawn up such plans, and asks them to provide a link to an internet site where the plan can be accessed.

**23 Member States** have either reported that they have drawn up national WMPs in line with the requirements of the Waste Framework Directive, or else have been found to have done so using an alternative data source\(^90\) ([the Netherlands](https://www.eea.europa.eu/publications/managing-municipal-solid-waste/netherlands-municipal-waste-management)). It should be noted, however, that not all of these plans reported were in force during the 2010–2012 period: **Bulgaria** reported that it updated its plan to reflect the 2008 amendments to the Directive but this was not published until 2014; and the **United Kingdom** reported that it published a new set of plans for its constituent nations in 2013. The detailed replies are summarised below.

In addition **Slovenia** reported that it has not drawn up a WMP in line with the stipulations of the Waste Framework Directive, but has in place an operational programme for waste which covers some of the elements required of Member State waste management plans. **Denmark** reported that no WMP aimed at meeting the requirements of the Directive has been drawn up. Rather, effective during the 2010–2012 period was a plan tailored to the country’s own objectives. This plan ran to the end of 2012, at which time it was replaced by 98 municipal plans drawn up in accordance with chapter five of [Denmark’s](https://www.eea.europa.eu/publications/managing-municipal-solid-waste/netherlands-municipal-waste-management) own Waste Order. **Hungary** indicated in its reply that it is in the process of drawing up a new WMP, to coincide with and reflect the implementation of its new waste act (‘the Waste Act’) which came into force in January 2013. However, no target publication date was provided, and as of the time of writing no WMP had yet been published.

In the Waste Framework Directive implementation Report 2007–2009\(^91\) it was reported that all Member States had drawn up WMPs. The decrease in the number of Member States with WMPs in place (by the three Member States listed above) in line with the requirements of the Directive in 2010–2012 is due in part to the overlap of the two reporting periods. The transitionary period following the 2008 amendment to the Directive means that WMPs made before the amendment of the Directive and in force from 2007–2009 would no longer have necessarily reflected the contents of the amended Directive in 2010-2012.

**Member States replies are summarised below:**

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**Austria** responded that a WMP had indeed been drawn up, citing the 2006 and 2011 Federal Waste Management Plan, and providing the link:

http://www.lebensministerium.at/umwelt/abfall-ressourcen/bundes-abfallwirtschaftsplan.html

Furthermore, **Austria** noted that the Commissions guidance had been used.


http://www.moew.government.bg/?show=top&cid=376.

The new National Plan is being drawn up in accordance with the guidance of 2012, as well as with the guidance for preparation of waste prevention programmes.

In **Croatia**, Pursuant to the Waste Act (OG 178/04, 111/06, 60/08, 87/09), the Waste Management Plan of the Republic of Croatia for 2007–2015 (OG 85/07, 126/10, 31/11) is in force and is available online at:

http://www.mzoip.hr/default.aspx?id=3709;  
http://www.mzoip.hr/default.aspx?id=7259

In the preparation of the Waste Management Plan, the guidelines of the European Commission were taken into consideration. The Sustainable Waste Management Act ([OG] 94/13), under Articles 17 and 18, requires the adoption of the Plan and prescribes its content. Pursuant to Article 181, the Government is to adopt the Plan by 31 December 2014.

In **Cyprus**, a waste management plan for household waste and similar types of waste has been prepared in 2012 including necessary actions in order to attain the objective of the Directive focusing on the separate collection of waste (paper, glass, metal, plastic and bio-waste). The relevant link is:  

**Cyprus** has made use of the Commission's guidance on how to prepare a waste management plan in order to prepare the tender documents for it. Additionally, a Waste Management Strategy prepared in 2004 is still valid referring to all types of waste generated in **Cyprus**. The relevant link is:


The **Czech Republic** has a basic strategic document in the area of waste management: the Waste Management Plan of the **Czech Republic**. The WMP represents a tool for
managing waste management in the **Czech Republic** and for the implementation of the long-term waste management strategy. According to Section 72 (1) k) of the Waste Act, the Ministry of the Environment must prepare – in cooperation with the relevant public administration bodies and the public – the Waste Prevention Programme of the Czech Republic within the scope stipulated in Section 42 of the Waste Act.

**Denmark** has not drawn up a WMP in order to attain the objectives referred to in Articles 1, 4, 13 and 16 of the Directive, but instead a waste management plan has been drawn up which meets Denmark’s own objectives and wishes. This plan runs through to the end of 2012. It has been followed up by 98 municipal waste plans which have been prepared in accordance with the provisions of Chapter 5 of the Waste Order concerning municipal waste planning.


**Estonia**’s National Waste Management Plan for 2008 to 2013, available on the website of the Ministry of the Environment at [http://www.envir.ee/1002](http://www.envir.ee/1002) has been drawn up in order to achieve the objectives of Directive 2008/98/EC. The relevant Commission Decisions were taken into account in the course of drawing up the Waste Plan.

**Finland** has established a national waste management plan called “The National Waste Plan until year 2016 – towards recycling society”. The national waste management plan can be obtained from web pages [http://www.ym.fi/fi-FI/Ymparisto/Jatteet/Valtakunnallinen_jatesuunnitelma/Valtakunnallinen_jatesuunnitelma__Kohti_%281764%29](http://www.ym.fi/fi-FI/Ymparisto/Jatteet/Valtakunnallinen_jatesuunnitelma/Valtakunnallinen_jatesuunnitelma__Kohti_%281764%29)

The Commission’s guidance on preparation of waste plans was not made use of in the preparation of the national plan. The National Waste Plan was accepted by the Government of Finland in 2008, and the Commission’s guidance was not yet published at that time.

The Waste Plan of the Åland Islands can be obtained from: [http://www.regeringen.ax/.composer/upload//socialomiljo/Avfallsplan_slutlig.pdf](http://www.regeringen.ax/.composer/upload//socialomiljo/Avfallsplan_slutlig.pdf)

It is drawn up in order to attain the objectives in the articles. The guidance was not yet published when the plan was written.

In **Germany**, at least one WMP is drawn up for each federal state; in some cases these plans are published in different sub-plans. The Commission guidelines could only partially be used, since at the time of the preparation of the plans they were not available in the official language templates.

**Greece**’s WMP is currently under preparation, and the Commission's guidance on how to prepare a waste management plan is being used. The National Plan for Healthcare Waste Management, National plan for Hazardous Waste management, National Plan for non-Hazardous waste management and the regional plans for waste management are still valid. The draft National Waste Management Plan will be publically available for comments.
In **Hungary**, as of 1 January 2013, Act CLXXXV of 2012 on waste (‘the Waste Act’) provided a new basis for waste management. Pursuant to the Waste Act, the national planning of waste management and the regional planning of waste management are performed in the framework of the National Waste Management Plan (‘the NWMP’) and the regional waste management plans, respectively. The NWMP is prepared in view of the objectives of the Waste Management Directive. The regional waste management plans are prepared for the area of jurisdiction of the 10 Environmental, Nature Conservation and Water Inspectorates, and they cover the entire territory of Hungary.

Pursuant to the Waste Act, the NWMP and the regional waste management plans are prepared by the National Waste Management Agency. The Agency has made use of the Commission’s guidance on how to prepare a waste management plan. The NWMP and the regional waste management plans should contain objectives for the planning area which aim at the prevention of waste generation and the adverse impacts of wastes, as well as at the elimination of the economic growth and the associated environmental impacts.

When ready, the NWMP and the regional waste management plans are published on the website of the Ministry of the Minister responsible for environmental protection and their availability is guaranteed on a permanent basis.

In **Ireland**, Waste Management Plans have been drawn up to cover the geographical territory of the State. The adoption of these Plans pre-dated the adoption of Revised Waste Framework Directive 2008/98/EC. However, the Plans are based on the guiding principles of the Waste Hierarchy, the requirement to protect the environment and human health, as well as the need to ensure a sufficiency of waste management infrastructure within the state to manage waste disposal and mixed municipal waste recovery needs, in accordance with the proximity and self-sufficiency principles.

The eleven Waste Management Plans covering the territory of Ireland (i.e. 10 non-hazardous Waste Management Plans adopted by local authorities and the National Hazardous Waste Management Plan adopted by the Environmental Protection Agency) have been evaluated for, inter alia, compliance with the requirements of Revised Waste Framework Directive 2008/98/EC and a decision has been taken to replace all Waste Management Plans. Work is proceeding on the preparation of Replacement non-hazardous Waste Management Plans (noting that the State has now been into three Regions – Dublin/ Midlands Region, Southern Region and the Connacht/ Ulster region – for the purposes of non-hazardous waste management planning) and a Replacement National Hazardous Waste Management Plan. Use will be made of the Commission’s Guidance on the preparation of Waste Management Plans during this process.


In **Italy**, with regard to Article 28 of the Directive, which introduced new rules for waste management plans, it should be reported first of all that Legislative Decree No 205/2010 correctly transposed into Italian law the provisions of Directive 2008/98/EC.

Specifically, Article 199 of Legislative Decree No 152/2006 establishes the required content of waste management plans in accordance with Article 28 of the Directive. Paragraph 11 of the same article imposes an obligation on the Regions to inform the Ministry promptly of the adoption or revision of waste management plans and prevention programmes, with a view to their subsequent submission to the European Commission. Paragraph 12 introduces the obligation to make these public, if necessary by publication on the websites of the competent local authorities.

In addition, Italian legislation already incorporated the content of waste management plans, later sanctioned by Article 28 of the Directive, even before the promulgation of Directive 2008/98/EC. Therefore, the plans adopted by the Regions, including those predating the entry into force of the EU obligations in question, already had to be drawn up in compliance with the principles and rules enshrined in the new Directive.

In **Latvia**, on 26 February 2013, the Cabinet adopted the National Waste Management Plan 2013-2020 (Cabinet Order No 100 of 21 March 2013). The Plan has been formulated in line with the requirements of Directive 2008/98/EC to attain the objectives referred to in Articles 1, 4, 13 and 16 of Directive 2008/98/EC.


In articulating the National Waste Management Plan 2013-2020, Latvia has made use of the recommendations for improvement of waste management operations provided in the research “Screening of waste management performance of EU Member States”.


As the Commission’s guidance on how to prepare a waste management plan was published in 2012, it was not made use of when updating the National Strategic Waste Management Plan for 2007-2013. A draft National Waste Management Plan for 2014-2020 has been drawn up: [http://www.am.lt/VI/files/0.262569001378461975.pdf](http://www.am.lt/VI/files/0.262569001378461975.pdf)

The draft National Waste Management Plan for 2014-2020 was drafted in accordance with the guidance on preparing a waste management plan approved by the European Commission.

In **Luxembourg**, the General Waste Management Plan, which replaced the National Waste Management Plan adopted in 2000, aims to describe the principles of waste management and to define the different types of waste. For each type of waste, the plan provides information regarding the definition and origin, composition, current arrangements for collection and management, methods of recovery or disposal, the deposit and the objectives of the future management. It sets out the general principles
of waste management, responsibilities and rules on management and waste prevention, draws attention to the need for appropriate cooperation between all relevant actors involved in the recovery and disposal of waste. It provides future directions for waste management applicable in the context of the national transposition of the Framework Directive 2008/98 / EC on waste.

The General Waste Management Plan has been approved by the Council of government dated January 29, 2010, and can be viewed on the internet site:

Http://www.environnement.public.lu/dechets/dossiers/pggd/index.html

In Malta, the Waste Management Plan 2008–2012, was completed in 2008. The National Waste Management Strategy for the Maltese Islands was published in 2010. Both the plan and strategy may be accessed at: https://secure2.gov.mt/tsdu/wms?l=1

At the time of reporting, Malta was reviewing its national waste management plan and strategy and an updated consolidated plan was intended to be in place by the end of 2013. The aim was to amalgamate policy and planning into one document. The review of the plan follows the Commission’s guidance on how to prepare a waste management plan.


The said document was drawn up in accordance with Directive 2008/98/EC on waste. The objectives and tasks set out in the plan concern the period 2011–2014, outlook 2015–2022. As the NWMP 2014 had been prepared before the Commission’s guidance was issued, Poland did not make use of the above-mentioned guidance.

Moreover, in accordance with the Act of 1 July 2011 amending the Act on Maintaining Cleanliness and Tidiness in Municipalities and Certain Other Acts (Journal of Laws No 152, item 897, as amended), which introduced changes to the municipal waste management system in Poland, provincial waste management plans were amended in 2012. Provincial governments are responsible for developing provincial waste management plans.

Mainland Portugal has the following Waste Management Plans: Plano Estratégico de Resíduos sólidos Urbanos [the Strategic Plan for Solid Municipal Waste] 2007-2016 (PERSU), Plano Estratégico de Resíduos Hospitalares [the Strategic Plan for Hospital Waste] 2011-2016 (PERH) and Plano Estratégico de Gestão de Resíduos Industriais [the Strategic Plan for Industrial Waste Management] 2001-2015 (PESGRI). Generally, these plans are consistent with the provisions of the Waste Framework Directive (WFD) and national legislation. The PERSU is currently under review; the proposed PERSU 2020 (for the period 2014–2020) is based on the provisions of Community law on waste, in
particular those of the WFD, highlighting a strong focus on applying the waste hierarchy and adopting measures to attain the targets for recycling and preparation for re-use.

Those plans are available on the website of the Portuguese Environment Agency through the following links:


The Autonomous Regions of Madeira and the Azores have their own Waste Management Plans covering all waste generated:


The design and drawing up of the Waste Management Plans took into account the European Commission’s guidance, although the structure and content were adapted to the waste planning model adopted in Portugal, in order to comply with the objectives of national legislation. As previously communicated to the Commission, publication of the National Waste Management Plan, which covers the entire national territory (the mainland and the Autonomous Regions of the Azores and Madeira - AR) is scheduled for the end of the year. The draft Plan, currently being finalised, was drawn up in accordance with the principles of the WFD and includes the elements set out in that directive relating to Waste Management Plans. That document includes the Waste Prevention Programme.

Romania has a National Waste Management Plan that covers the entire national territory, and which can be located at:


In Slovakia, the national Waste Management Programme for the years 2006–2010 approved by the Slovak Republic Government was still partly effective in the period of 12/12/2010 to 31/12/2012. The former was approved on 15 February 2006, i.e. before the deadline for the transposition of Directive 2008/98/EC. At present, the national Waste Management Programme of the Slovak Republic for 2011 to 2015 approved by the Slovak Republic Government is effective. The Programme's contents correspond to the requirements stipulated in the Slovak and European legislation, above all in Act No 223/2011 on waste and Directive 2008/98/EC on waste. Waste Management
Programme of the Slovak Republic for the years 2011–2015 is the fourth consecutive Programme of its kind.

Waste Management Programme of the Slovak Republic for the years 2011 to 2015 stems from the assessment of the previous Programme created for the years 2006 to 2010, analysis of the current situation, and the needs of the Slovak waste management sector. It is anticipated that the process of preparation of the next waste management programme will make use of the document called Preparing a Waste Management Plan, A methodological guidance not 2012.


In Slovenia, the Operational Programme on Municipal Waste Management (OP RKO) is a national municipal waste management plan which Member States are obliged to adopt for an individual type or combination of waste and for the entire territory of the country. In accordance with Directive 2008/98/EC, the OP RKO shows the results of the analysis of the current situation in the area of municipal waste management, the measures aimed at improving environmentally acceptable preparations for the re-use, recycling, recovery and disposal of municipal waste, and the assessments drawn up that will serve to assist in implementing the objectives and provisions, particularly those of Directives 2008/98/EC and 1999/31/EC, as well as Directives 94/62/EC, 2002/96/EC, 2012/19/EU and 2006/66/EC.

In accordance with the waste hierarchy and the objective of creating a recycling society, OP RKO measures are directed towards offering the lowest possible support to the landfilling of municipal waste. An order of priority of municipal waste management procedures has been drawn up which has deviated from the waste hierarchy only on account of the restrictions dictated by technical feasibility and economic practicability. The OP RKO places special emphasis on the fact that the heat treatment of solid municipal waste must be energy efficient to the extent that it is regarded as a recovery procedure.

In order to ensure Slovenia’s self-sufficiency in the treatment and disposal of mixed municipal waste, the OP RKO defines a network of landfills for the disposal of and facilities for the treatment of mixed municipal waste, taking into account the geographically conditioned social circumstances and the need for landfills and treatment capacities. The infrastructural municipal waste management network as defined provides Slovenia with self-sufficiency in the recovery and disposal of municipal waste. Implementation of the OP RKO also ensures a reduction in greenhouse gas emissions resulting from the putting of municipal waste to landfill; in formulating the measures, due regard was also paid to the requirements laid down for Slovenia under the strategy to reduce the amount of biodegradable waste put to landfill from Directive 1999/31/EC.

In Spain the National Integrated Waste Plan 2008-2015 is currently in force, which was already aimed at fulfilling the Waste Framework Directive, and there are waste management plans in the autonomous communities. Information may be obtained via the following link [in Spanish]: http://www.magrama.gob.es/es/calidad-y-evaluacion-ambiental/temas/prevencion-y-gestion-residuos/normativa-y-planificacion/Default.aspx
Nonetheless, both the National Plan and the autonomous community plans are subject to revision in order to strengthen the measures that will allow Spain to meet the objectives set out in the Community legislation on waste. These plans will be approved throughout 2014 and 2015.

Sweden’s national waste plan “From waste management to resource efficiency” was adopted in 2012.


The commission guidance has been used to a certain extent.

In the United Kingdom in England, the Government has consulted on a Waste Management Plan with a view to fulfilling most of the mandatory requirements of Article 28. This document will be published by December 2013 and follows the Commission’s guidance on what needs to be covered under a Waste Management Plan or Plans to meet the requirements of Article 28. Article 28 (3) (d) – on location specific criteria - is addressed though a number of documents prepared at national and local level. At national level, the Government has prepared a national planning policy document "Planning Policy Statement 10: Planning for sustainable waste management”, revised in March 2011, and is currently out to consultation on updating this policy. This document should also be finalised by December 2013. This national level document is supported by a number of local authority waste plans which provide geographical coverage of England.

Coverage in Wales is provided by Towards Zero Waste (the overarching waste strategy for Wales), Sector Plans – Municipal Sector Plan; Collection, Infrastructure and Sectors Plan; Construction and Demolition Waste Sector Plan; Industrial and Commercial Sector Plan (draft consulted on, final due by December 2013), Technical Advice Note (TAN) 21 and Local Development Plans. The Waste Strategy for Wales was published prior to the publication of the Commission guidance.

In Northern Ireland, the Northern Ireland Waste Management Strategy (NIWMS), together with Waste Management Plans (WMPs) prepared by the three district council Waste Management Groups as required by the Waste and Contaminated Land (Northern Ireland) Order 1997, form Northern Ireland’s waste plan as required by Article 28 of Directive 2008/98/EC. The Waste Management Plans cover the whole of Northern Ireland and are supplemented by the Northern Ireland Regional Development Plan and Planning Policy Statement 11. The current Northern Ireland Waste Management Strategy 2006-2020 is being reviewed with a view to publishing a final document by September 2013. This will inform revised Waste Management Plans.

In Scotland, a draft Plan is currently being prepared. A national Zero Waste Plan (ZWP) has already been published which has set a strategic direction for waste policy in Scotland. The Waste Management Plan currently being drafted to meet the requirement of Article 28 will be inserted as an Annex to the overall ZWP.

Gibraltar’s Waste Management Plan 2011 is currently being revised and will be consulted upon and submitted to the EU by December 2013.
All these plans have been drawn up in order to meet the objectives of the Directive.

3.14.2 Geographical Coverage of Waste Management Plans (WMP)

Question 15 (ii): How many waste management plans have been drawn up to cover the entire geographical territory of the Member State? In case of more than one plan, how does the Member State ensure that the entire geographical territory is properly covered by the waste management plans and that they meet the objectives referred to in Articles 1, 4, 13 and 16 of Directive 2008/98/EC?

Article 28, which is the relevant article for this question, makes reference to the geographical coverage of WMPs. It is possible to have more than one plan within a Member State, with different plans drawn up for distinct municipalities or regions. Question 15 (ii) asks how many plans Member States have drawn up, and how in cases of multiple plans Member States ensure complete geographical coverage of plans in line with the Waste Framework Directive.

22 Member States responded to this question, either reporting that one national WMP had been drawn up, or else explaining how complete coverage is assured in the case of multiple plans. The detailed replies are summarised below.

In addition, Denmark reported that its WMPs, which are not intended to meet the requirements of the Directive but rather the country’s own objectives, are currently drawn up on a municipal level, with 98 such plans in place. Slovenia reported that it has not implemented a WMP drawn up in correspondence with the Directive, but has in place an operational programme which addresses a number of the same points as are required by plans under the Directive, and this covers the whole of the national territory. Hungary indicated in its reply that both national and regional WMPs are being drawn up but did not say when it expected these plans to be published.

Although the Netherlands did not submit a reply to the Implementation Questionnaire 2010-2012, an alternative data source from the European Environment Agency indicated that the country has a single WMP.

Member States replies are summarised below:

Austria’s WMP covers the whole of the country. In addition, some of the information contained in the WMP can be included in local waste management plans.

Bulgaria draws up a single national document covering the entire territory of the country and it includes all waste streams.

In Croatia, pursuant to Article 17 of the Sustainable Waste Management Act, the Waste Management Plan covers the entire geographical territory of the Republic of Croatia.

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Additionally, Article 21 of the Act requires the adoption of waste management plans by local self-government units and prescribes their content. Waste management plans are adopted for a period of six years.

In Cyprus, the WMP will cover the whole of the nation’s geographical territory.

The Waste Management Programme of the Czech Republic covers the whole of the country.

Denmark has both a national and municipal plans (although none are based on the requirements on the Directive—see Section 3.12.1).

In Estonia, according to Section 40(1) of the Waste Act, the national waste management plan is a development plan for waste handling that covers the entire territory of the state as well as waste shipped into and out for the territory of the state, transnational optimisation of waste management and waste-related cooperation, and provides an assessment of the usefulness and appropriateness of implementing economic and other instruments in order to resolve waste problems. Pursuant to Section 40(2) of the Act, the national plan comprises, among other things, subdivisions on waste handling in the counties.

Finland's National Waste Plan until year 2016 covers the whole of mainland Finland. The Waste Plan for Åland (adopted by Government of Åland) covers the territory of the Åland Islands. The National Waste Plan for Mainland Finland is further specified by five Regional Waste Plans (The regional Waste Plans of Southern and Western Finland, Central Finland, Eastern Finland, Oulu Province and Lapland). These regional waste plans also cover together the whole territory of mainland Finland.

In Germany, § 30 KrWG commits individual federal states to establish waste management plans for their area, and one to four waste management plans have been created for each state. In all states the entire territory is covered, so that ultimately the entire territory of Germany is covered by a WMP. The objectives set out in the Directive are achieved through sustainable, overall design of waste management (Article 1), by the strict enforcement of the KrWG (Article 4), through legislation and enforcement (Article 13) and by rules for self-sufficiency and proximity (Article 16).

In Greece, an integrated national plan for all waste streams covering the entire geographical territory is currently under preparation. This plan will be divided into more plans for specific waste streams (e.g. municipal, industrial etc.), covering also the entire geographical territory. Furthermore, regional waste management plans, covering the geographical territory of each region, will be issued incorporating and further specifying the principles, directions and measures of the National Waste Management Plan.

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93 Note: the Czech Republic in fact responded that its Waste Prevention Programme covers the whole of the country. It has been assumed that Waste Management Plan was meant.
At the time of reporting, **Hungary** was preparing both a national WMP and a set of regional plans.

In **Ireland**, there are currently 10 Regional Waste Management Plans existence for non-hazardous waste management planning and these cover the entire territory of Ireland – Dublin, Midlands, Connacht, North East, Mid-west, South East, Cork, Wicklow, Kildare and Donegal. The specific requirements that these Waste Management Plans must fulfil are set out in Section 22 of the Waste Management Act and the Waste Management (Planning) Regulations 1997. As noted earlier, the State has now been configured into three Regions – Dublin/ Midlands Region, Southern Region and the Connacht/ Ulster region – for the purposes of non-hazardous waste management planning and work is proceeding on the preparation of Replacement National Waste Management Plans in these Regions that will conform to the objectives of Articles 1, 4, 13 and 16 of Directive 2008/98/EC in accordance with the requirements of Section 22 of the Waste Management Act and the Waste Management (Planning) Regulations 1997.

There is a single National Hazardous Waste Management Plan in existence and work is proceeding on the preparation of a Replacement National Hazardous Waste Management Plan that will conform to the objectives of Articles 1, 4, 13 and 16 of Directive 2008/98/EC in accordance with the requirements of Section 22 of the Waste Management Act and the Waste Management (Planning) Regulations 1997. The National Hazardous Waste Management Plan: 2014 – 2020 is available online.

In **Italy**, waste management plans are drawn up at regional level. Therefore, each Italian region has its own waste management plan and together they cover the entire national territory.

In **Latvia**, during the reporting period 11 regional waste management plans were in force, but have been replaced by the national plan as of December 2013.

**Lithuania** drafts 10 regional and 60 municipal waste management plans. Regional and municipal waste management plans are drawn up in accordance with the provisions of the National Strategic Waste Management Plan for 2007-2013.

A draft National Waste Management Plan has been drawn up for the period of 2014–2020. Regions and municipalities must draw up their own waste management plans in accordance with the provisions of the National Waste Management Plan for 2014-2020.

According to Articles 27(8) and 28(6) of the Law on waste management, the period of implementation of regional waste management plans and municipal waste management plans must coincide with the period of the National Waste Management Plan. Order No D1-1004 of the Minister for the Environment of the Republic of Lithuania of 16

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December 2010 on the requirements to regional and municipal waste management plans (Official Gazette, 2010, No 149-7654) sets out the requirements to the contents and the procedure for the drafting and publishing of regional and municipal waste management plans. According to those requirements, draft regional and municipal waste management plans are subject to a strategic environmental impact assessment and the plans drawn up are subject to coordination with the institutions concerned and the public.

**Luxembourg** has only one WMP, which applies to the whole of the national territory.

In **Malta**, there was only one waste management plan, covering the entire geographical territory, during the reporting period. At the time of reporting, **Malta** was reviewing its national waste management plan and strategy and an updated consolidated plan is intended to be in place by end of 2013.

In **Poland**, one national waste management plan and 16 provincial waste management plans have been drawn up. Provincial governments are responsible for developing provincial WMPs. The Act on Waste requires that the national WMP and provincial WMPs be developed and specifies the content of these plans in line with Directive 2008/98/EC.

In **Portugal**, waste planning differs in mainland Portugal and the autonomous regions, since there are separate plans for the mainland and for each of the autonomous regions - thus the entire territory is covered by waste management plans. Although they are separate plans, the principles underpinning them, and the strategy, measures and actions which they set out, are consistent with the objectives of attaining national targets and with the provisions contained in Community legislation and guidance.

The National Waste Plan, covering the entire national territory and in 2013 also defining an integrated strategy for the mainland and the autonomous regions, is scheduled for publication. That ensures coverage of the entire geographical territory by a Waste Management Plan, which was drawn up in accordance with the principles of the WFD and includes the elements set out in that directive relating to Waste Management Plans.

**Romania** has one WMP which covers the entire national territory.

In **Slovakia**, pursuant to the Waste Act, national waste management programme is developed for a given time period. This document is to serve as the basis for subsequent creation of eight regional waste management programmes. The **Slovak Republic** is divided into eight regions, which means that each region's territory is covered by a pertinent regional programme. Following the provisions of the Waste Act, the municipality develops a municipal waste management programme. When the waste producer, either natural or legal person, exceeds the limit set in the Waste Act, the producer creates their own programme of waste origin, while the holder of polychlorinated biphenyls present at their site or the same holder who is owner of contaminated facilities shall be obliged to develop a programme of the holder of polychlorinated biphenyls. Regional programmes must not be in conflict with the national programme of the **Slovak Republic**, and the waste producer must consider the
municipal waste programme at creating their own waste programme. Producer’s programme must not be in conflict with the regional programme’s binding part.

In Slovenia, no waste management plan was adopted during the reporting period. The Operational Programme on Municipal Waste Management (OP RKO) was adopted in March 2013, and is a national municipal waste management plan drawn up for the entire territory of the Slovenia. It has been drawn up in accordance with the requirements of Directive 2008/98/EC. On the basis of an analysis of the current situation in the area of municipal waste management, the OP RKO defines the measures which have to be adopted to improve environmentally acceptable preparations for the re-use, recycling, recovery and disposal of municipal waste. Municipal waste management scenarios for the periods leading up to 2020 and 2030 have also been drawn up; these ensure that the targets referred to in Directives 2008/98/EC, 1999/31/EC, 94/62/EC, 2002/96/EC, 2012/19/EU and 2006/66/EC are met.

In Spain the National Integrated Waste Plan 2008-2015 includes waste under municipal responsibility, hazardous waste (which includes waste oils), waste with specific legislation (tyres, end-of-life vehicles, waste electrical and electronic equipment, waste from extractive industries, batteries and accumulators, PCBs and PCTs, packaging, other waste of special interest (plastics for agricultural use and non-hazardous industrial waste). Moreover, the Plan includes the Strategy to reduce biodegradable waste destined for landfills.

Besides the national plan, the autonomous communities have established regional plans with similar content within their territorial areas. Thus, the entire territory would be covered by waste management plans.

In Sweden apart from the national waste plan every municipality has a waste management plan covering all waste in the municipality (chapter 15 section 11, the Environmental Code, sections 74-80 of the Ordinance on Waste95). There are 290 municipalities in Sweden. The municipalities are obliged to hand in their plans to the county administrative boards (CAB). Then the CAB shall compile the plans and send the compilation to the Swedish EPA. However this system does not work very well. This autumn the Swedish EPA will ask the CAB to collect the plans and make a compilation. This will serve as a base in the work of the Swedish EPA to revise the regulations concerning the content of the municipal waste management plans and to develop the national waste management plan.

In the United Kingdom waste is a devolved matter, so each administration is delivering its own Waste Management Plans. There are, therefore, four main national waste management plans covering the three devolved administrations, Gibraltar and England.

95 http://www.epa.ie/pubs/reports/waste/haz/nationalhazardouswastemanagementplan2014-2020.html#VK1mcCyvncs
all of which have been prepared following the Commission’s guidance on how to prepare a Waste Management Plan. In England the national waste management plan is supported by national planning policy and local authority waste plans. There is regular co-ordination between the UK Government, the devolved administrations and Gibraltar to ensure that these Plans, taken collectively, meet the Directive’s requirements on the UK.

**Conclusion:**

23 Member States have either reported that they have drawn up WMPs in line with the requirements of the revised Waste Framework Directive in 2010-2012 or else an alternative data source\(^\text{96}\) has been found which states that this is the case (the Netherlands).

Of the outstanding three Member States, only Denmark and Slovenia reported that they had no intention of drawing up a WMP in full accordance with the Waste Framework Directive. Denmark reported that it has a number of municipal level plans, but they are directed towards the country’s own aims and not the requirements of the Directive. Slovenia reported that it does not have a WMP in place but it does have an operational programme which satisfies some of the same requirements which the Directive places on WMPs. Hungary reported that it intends to publish a WMP to complement its new Waste Act, but it did not give a publication deadline.

In the Waste Framework Directive implementation Report 2007–2009\(^\text{97}\) it was reported that all Member States had drawn up WMPs. The decrease in the number of Member States with WMPs in place in line with the requirements of the Directive in 2010-2012 is due in part to the overlap of the two reporting periods. The transitional period following the 2008 amendment to the Directive means that WMPs made before the amendment of the Directive and in force from 2007–2009 would no longer have necessarily reflected the contents of the amended Directive in 2010-2012.

### 3.15 Waste Prevention Programmes (WPP)

#### 3.15.1 Preparation of Waste Prevention Programmes (WPP)

**Question (16) (i): Have waste prevention programme(s) been drawn up in accordance with Articles 1 and 4 of Directive 2008/98/EC? Please provide a link to the publically


available website on which they are placed. Has the Member State made use of the Commission’s guidance on how to prepare a waste prevention programme?

Article 29, which is the relevant article for the question, requires that Member States establish waste prevention programmes (WPPs) by 12th December 2013. These programmes should be in accord with Articles 1 (the scope of the Directive) and 4 (the waste hierarchy), and should set forth waste prevention objectives and measures designed to break the link between economic growth and the environmental impacts of the generation of the waste. WPPs can be integrated into WMPs, other environmental policy programmes, or can function as standalone programmes. Question 16 (i) seeks to establish whether Member States have drawn up WPPs.

17 Member States reported that they had drawn up WPPs and were able to provide links to the relevant documents. The detailed replies are summarised below.

Four additional countries, Bulgaria, Croatia, Greece and Malta reported that they had not published WPPs at the time of reporting (2010-2012) but were in the process of preparing plans for publication. Malta was able to state that its WPPs were due to come into force at the end of 2013, and for Bulgaria it was reported that it would be 2014.

Furthermore Cyprus indicated that it had not drawn up WPPs yet, but had made use of the Commission’s guidance in order prepare tender documents for WPPs moving forward. Denmark reported categorically that it has not prepared WPPs, but that waste prevention measures are contained within its current Waste Strategy. Romania reported that it had not drafted WPPs, but that meetings had taken place with various economic sectors in order to identify the best waste prevention measures that could be put in place in Romania’s domestic market. Slovenia reported that it had not drawn up WPPs, and did not provide any additional information.

Member States replies are summarised below:

Austria has included a WPP as a central part of the Federal Waste Management Plan, Waste Prevention Programme 2011 (volume 1, chapter 6). In the creation of the plan, the Commission's guidelines were used. A link was provided:

http://www.bundesabfallwirtschaftsplan.at/vermeidungsprogramm.html

In Bulgaria, the Waste Prevention Programme will be a self-contained part of the National Plan for the 2014-2020 period. As required by the ZUO, the Minister of Environment and Water will present a single programme document, containing a part entitled ‘Waste Prevention’, to the Council of Ministers for approval. The waste prevention programme must:

- set out the existing waste prevention measures;
- evaluate the usefulness of the prevention measures, indicated in the Annex to the Waste Framework Directive 2008/98/EC, or the application of other appropriate measures;
- establish specific qualitative or quantitative benchmarks to monitor and assess the progress made in implementing waste prevention measures; and
- set out indicators to assess the implementation of waste prevention measures.
The prevention programme will comply fully with the Commission’s guidance on the preparation of waste prevention programmes. The programme will be adopted within the time frame provided for in Directive 2008/98/EC.

In **Croatia**, under Article 18 of the Sustainable Waste Management Act, a Waste Prevention Plan shall form an integral part of the Waste Management Plan, in accordance with Articles 1 and 4 of Directive 2008/98/EC. In the preparation of the Waste Management Plan, the guidelines of the European Commission are being taken into consideration.

In **Cyprus**, for period 2010–2012 no waste prevention programme has been prepared, but guidelines were written down for the preparation of the tender documents. **Cyprus** has made use of the Commission's guidance on how to prepare a waste prevention plan in order to prepare the tender documents for it.

In the **Czech Republic**, the existing preventative waste management measures are part of the currently valid Waste Prevention Programme of the Czech Republic (separate chapter 3.1. of the plan). The valid Waste Prevention Programme of the Czech Republic is available to the public on the website of the Ministry of the Environment:

http://www.mzp.cz/www/platnalegislativa.nsf/d79c09c54250df0dc1256e8900296e32/9f15494cd6be130ec125768600324768?OpenDocument

The preparation of prevention programmes into the Waste Prevention Programme of the Czech Republic was enshrined in Czech legislation through an amendment to the Waste Act (Act No 154/2010). As the new Waste Prevention Programme of the Czech Republic will be prepared to be effective from 2015, a separate document is being prepared to ensure compliance with the transposition deadline. Thereafter the results of the draft part of the Waste Prevention Programme will be reflected in the new Waste Prevention Programme of the Czech Republic.

**Denmark** has not prepared a WPP. The current Waste Strategy ’10 contains initiatives concerning waste prevention.

http://www.mst.dk/Virksomhed_og_myndighed/Affald/Ressourcestrategien_virk/Affalssstrategier_2005_20012/default.htm

In **Estonia**, a waste prevention programme is part of the new National Waste Management Plan 2014–2020, which will be submitted to the Government of the Republic for approval in the second half of 2013. The draft and other related material is available on the website of the Ministry of the Environment at: http://www.envir.ee/1189794. The Commission’s guidance was taken into consideration in the course of drawing up the waste prevention programme.

In **Finland**, the National Waste Prevention Programme has been drawn up as part of the National Waste Plan until year 2016. The National Waste Prevention Programme is included into pages 9-10 of the Waste Plan, paragraph “Targets for Prevention of Waste and Recovery of Waste” and pages 11-15, paragraph “Improving material efficiency of production and consumption – the National Waste Prevention Program of Finland”.
The Commission’s guidance on preparation of waste prevention programmes was not made use of in the preparation of the plan. The National Waste Prevention Programme was published in 2008, and the Commission’s guidance was not yet published at that time.

In the Åland Islands the waste prevention programme is a part of the waste management plan. The guidance was not published when the waste prevention programme was written.

In **Germany**, the federal government, with the participation of individual federal states, has established a WPP (called the ‘Abfallvermeidungspro’ or AVP) in accordance with Articles 1 and 4 of Directive 2008/98/EC. The AVP, prepared in accordance with the provisions of § 33 KrWG, sets targets for waste prevention and explains indicators and benchmarks appropriate to proving the effectiveness of prevention measures. Furthermore, the AVP describes existing and potential waste prevention measures at the federal and local levels in terms of ecological, economic, social and legal aspects. The AVP can be found at the following website: [http://www.bmu.de/themen/wasser-abfallboden/abfallwirtschaft/abfallpolitik/abfallvermeidung/](http://www.bmu.de/themen/wasser-abfallboden/abfallwirtschaft/abfallpolitik/abfallvermeidung/)

In drafting the AVP the Commission "Guidelines on Waste Prevention Programme" Guiding principles were used.

**Greece’s** WPP is currently under preparation, and the Commission’s guidance on how to prepare a waste prevention programme is being used. It will be publically available during its formulation.

**Hungary** has elaborated a National Prevention Programme which will form an integral part of the National Waste Management Plan. Social and administrative consultation on this document has now commenced. During the elaboration of the programme, the Commission’s guidance and advice on how to prepare a waste prevention programme was considered.

**Ireland** has operated a successful National Waste Prevention Programme since 2004. The programme is under review and compliance with the requirements of the Waste Framework Directive 2008/98/EC will be ensured. Full details are available at: [www.nwpp.ie](http://www.nwpp.ie).

In **Italy**, the national waste prevention programme was drawn up in accordance with the Commission’s guidelines, but had not yet been adopted at the time of reporting. Prior to its drawing up, a public consultation was held in the form of a questionnaire published on the Ministry of the Environment’s website for anyone wishing to express their views on the programme. In addition, the principal stakeholders were consulted in order to obtain useful guidance on the drafting of the programme. Interested members of the public had one month in which to express their views. The preliminary phase was completed at the end of 2012. In June 2013, the draft programme was sent to stakeholders and the Regions that had requested changes and additions to the programme. The decree adopting the national programme is currently being drafted.
In Latvia, the National Waste Prevention Programme has been drawn up in accordance with Articles 1 and 4 of Directive 2008/98/EC as a component of the National Waste Management Plan 2013-2020 and is published on the following website: http://polsis.mk.gov.lv/view.do?id=4276. In preparing the National Waste Prevention Programme, Latvia has made use of the recommendations for the improvement of waste management operations provided in the research “Screening of waste management performance of EU Member States”.

In Lithuania a draft National Waste Prevention Programme has been drawn up (http://www.lrs.lt/pls/proj/dokpaieska.showdoc_l?p_id=184903). The draft National Waste Prevention Programme was drafted in accordance with the requirements of Directive 2008/98/EC and the European Commission’s guidance on preparing a waste prevention programme.

By 12 December 2013 the Minister for the Environment will issue an order approving the National Waste Prevention Programme setting out waste prevention objectives, objectives, tasks and measures of the Waste Prevention Programme for 2014-2020, quantitative evaluation criteria, expected results and institutions implementing the Programme.

Luxembourg was still establishing its waste prevention plan at the time of reporting, although some waste prevention measures were already part of the General Waste Management plan.

In Malta, no waste prevention programme in accordance with Articles 1 and 4 of Directive 2008/98/EC was in place during the reporting period. However, Malta was in the process of drafting a national waste prevention programme, which was envisaged to be published by the end of 2013. Malta has consulted the Commission’s guidance on how to prepare a waste prevention programme in the drafting process.

Poland has developed a WPP. The programme is integrated with the National Waste Management Plan 2014. The document is available at: http://monitorpolski.gov.pl/mp/2010/s/101/1183/1. As the national WMP 2014 had been prepared before the Commission’s guidance was issued, Poland did not make use of the above-mentioned guidance.

Portugal has a Programme for the Prevention of Municipal Waste (PPRU), whose primary target is to propose measures, targets and actions for their implementation and monitoring, with regard to reducing the quantity and hazardous nature of municipal waste generated. Accordingly, the PPRU is intended to make an active contribution towards attaining an objective which constitutes a major aim of environmental policy, in particular in the area of waste, which is to decouple economic growth from increasing waste generation and to minimise the negative impacts of waste management on the environment, also taking into account its impact on natural resource management, thereby contributing to sustainable development. The prevention strategy defined by the PPRU is based on the principles defined in the WFD. Portugal also has a National Plan for the Prevention of Industrial Waste (PNAPRI). The Waste Prevention Programme will
be included in the National Waste Management Plan, which is applicable to other types of waste and is scheduled for publication in 2013.

The PPRU and the PNAPRI are available for consultation on the website of the Portuguese Environment Agency:


Romania had not currently drafted prevention plans regarding waste production at the time of reporting, but meetings were taking place with economic sectors for the identification of the best methods that could be implemented on the domestic market.

In Slovakia, in 2012 preparatory documentation and an outline of the Waste Prevention Programme was drawn up in line with Article 29 of Directive 2008/98/EC. The Programme itself will be submitted to the SR Government session in the second half of 2013. The preparatory phase of the Programme has made use of the EC Guidance.

Slovenia has not established a WPP.

In Spain the National Integrated Waste Plan 2008-2015, currently in force, contains objectives and measures on prevention for the waste streams included. Likewise, the waste management plans of many autonomous communities – which have been or are in the process of being approved – have included prevention objectives (e.g. in Asturias, Cantabria, Castile-Leon, Castile-La Mancha, Galicia, Extremadura, Rioja, etc.). In addition, the drafting of prevention plans has also been promoted at local authority level in Catalonia, which has 27 local prevention plans that cover approximately 36% of the population in this autonomous community.

Nonetheless, and in order to fulfil Article 29 of the Waste Framework Directive, Spain has produced a draft State waste prevention programme, which was available for public consultation until 30 September. The representations received are currently being examined. This programme is expected to be approved before the end of 2013. The draft can be consulted via the following link [in Spanish]: http://www.magrama.gob.es/es/calidad-y-evaluacion-ambiental/participacion-publica/PP_Residuos_2013_PROYECTO-PROGRAMA-ESTATAL-PREV-RESIDUOS.aspx.

This draft State programme has been produced following the Commission recommendations set out in the document “Preparing a Waste Prevention Programme”.

In Sweden, according to section 83 of the Ordinance on Waste the Swedish EPA is responsible for the establishment of waste prevention programmes. The Swedish waste prevention programme is planned to be adopted on 12th of December 2013. The programme is now being elaborated and has currently been referred to organizations, agencies and municipal administrations for consideration. We have made use of the commission’s guidance on how to prepare the programme. For instance, we have set priorities and objectives and discussed it with key stakeholders during workshops. During the workshops all key stakeholders also have been asked to come up with good examples.
of measures. Further, we have discussed the vision and the targets with the Swedish Environmental Protection Agency’s Waste Council, which consists of representatives from about 20 key stakeholders in Swedish society. The stakeholders represent communities, concerned organizations and industry. We have also prioritized biodegradable waste (food waste) and electrical and electronic waste, specially mentioned in the guidance.

Link to the website where there’s a proposal for a Swedish waste prevention programme: http://www.naturvardsverket.se/Stod-i-miljoarbetet/Rattsinformation/Remisser/Aktuella-remisser/Program-for-att-forebygga-avfall/

In the United Kingdom Defra has recently publically consulted on its approach to drafting the Waste Prevention Programme for England, making use of the Commissions guidance. The programme will be published before the end of 2013 in accordance with the requirements of Article 29 of Directive 2008/98/EC. Wales has publically consulted on its draft Waste Prevention Programme and is currently undertaking the analysis of replies. It is scheduled to publish the plan by 12 December 2013. The Welsh Government has made use of the EC guidance on how to prepare a waste prevention programme. In Northern Ireland, the Waste Prevention Programme is currently being prepared for consultation in order to meet the Directive deadline in December 2013. The steps outlined in the guidance were followed, including the involvement of the public and business in the elaboration of the programme. Scotland has already publicly consulted on its Waste Prevention Programme and is awaiting Ministerial clearance of its draft Plan. It is still on target to publish before the deadline. Gibraltar incorporated the Waste Prevention Programme into the 2011 Waste Management Plan and is currently updating this which will go to public consultation and be submitted to the Commission by December 2013.

3.15.2 Decoupling Economic Growth and Waste Generation

Question 16 (ii): Please outline the main elements of the waste prevention programmes the Member State has adopted in order to break the link between economic growth and the environmental impacts associated with the generation of waste.

Article 29, which is the relevant article for the question, states that WPPs should contain objectives and measures designed to break the link between economic growth and the environmental impacts of waste generation. Question 16 (ii) asks Member States what features of their WPPs are specifically targeted in this regard.

15 Member States reported on detailed lists of measures aimed at decoupling economic growth and the environmentally detrimental generation of waste. Of these, Croatia, although not having published a plan at the time of reporting, was able to report on a good list of measures in its reply which will appear in its WPP upon its eventual publication. The detailed replies are summarised below.
In addition **Austria** and **Finland** both gave high level replies lacking details of actual, concrete measures. **Bulgaria, Cyprus, Denmark, Greece, Malta, Slovakia, Slovenia** and **Romania** had not published WPPs at the time of reporting (2010-2012), and as such were not able to provide any details on decoupling measures.

Best practice examples reported include: **Germany**, which reported on source based disposal costs, which would provide real economic incentives for preventing waste; **Poland**, which reported on green procurement, which has the potential to achieve large scale resource savings; and **Latvia**, which reported on a Natural Resource Tax on harmful disposable products such as single use carrier bags, which again provides an economic disincentive against waste.

**Member States replies are summarised below:**

**Austria** responded that the most important measures are: prevention of food waste, prevention of rubble, waste prevention in establishments, waste prevention in households, and pushing for re-use.

**Bulgaria** responded that its WPP was currently being drawn up at the time of writing.

In **Croatia**, the Waste Prevention Plan, in accordance with Article 18(1) of the Sustainable Waste Management Act, shall contain in particular:

1) Waste prevention targets; and
2) Measures required to attain waste minimisation or waste prevention targets, which relate to, among other things:

- planning or other economic instruments promoting the efficient use of raw materials and resources;
- the promotion of eco-design (the systematic integration of environmental aspects into product design with the aim of improving the environmental performance of the product throughout its whole life-cycle);
- the provision of information on waste prevention techniques with a view to facilitating the implementation of best available techniques in industry;
- economic instruments such as incentives for cleaner purchases involving the purchase of products with less packaging;
- the organisation of awareness campaigns and information provision directed at the general public or a specific set of consumers; and
- the promotion of the re-use and/or appropriate discarding of products or of their components, notably through the use of educational, economic, logistic and other measures.

**Cyprus** responded that its WPP had not yet been adopted.

The **Czech Republic** responded that since it became valid (1 July 2003) the Waste Management Plan of the Czech Republic (respectively its binding part) has also focused on preventing the production of waste and its minimisation. The measures connected with the prevention of waste and the minimisation of waste are defined in particular in chapter 3.1. of the WMP. The separately prepared Waste Prevention Programme (under preparation) is split into two main parts. The analytical part describes the strategic and
legislative framework, the initial situation in terms of compliance with the measures and steps connected with the issue of preventing waste production, and also performs a basic analysis of the situation in terms of selected flows of waste where the need has been identified for further elaboration of the prevention of waste production into individual chapters and subchapters. The design part includes objectives and measures for their fulfilment.

The main objective of the Waste Prevention Programme is:

“To create, using a coordinated and unified approach, conditions for the harmonisation and stabilisation of the use of sources of primary raw materials and the production of waste taking into account a gradual reduction in their quantities.”


Estonia has not yet adopted the waste prevention programme, but according to the draft the general objective of the programme is to increase the resource efficiency of Estonian economy and promote waste prevention, including the reduction of the harmfulness of waste, in order to reduce the negative impact on the environment and human health resulting from the use of natural resources and from waste management. An important aspect of this is to ensure the possibility of breaking the link between waste generation and economic growth as a result of implementing waste prevention measures. In the Estonian context, this is mainly realised by reducing the direct link between economic growth and waste generation and the environmental impacts associated with it. The successful implementation of the measures and activities proposed under the waste prevention programme will help achieve the proposed general objective through the following measures, i.e. axes and results:

- Estonian enterprises have the means and competence for the extensive implementation of the principles of resource efficiency and waste prevention;
- Estonian consumers are aware of the methods of waste prevention and are both willing and able to contribute to waste prevention and the re-use of waste; and
- Estonian legislation favours waste prevention, including re-use.

In Finland, the main element of the waste prevention programme to break the link between economic growth and the impacts associated with the generation of waste is to promote material efficiency in production and consumption. The programme includes measures for promoting material efficiency in the main product categories, in industry and mineral extraction, in the building sector and in private consumption. Indicators have been defined to monitor the goals of the programme and they include comparing the generation of waste in different sectors to appreciation on the sector.
The waste program of the Åland Islands has proposals for concrete actions. The program will be expanded later.

In **Germany** the main elements of the AVP are:

- Research and development on waste-avoiding concepts and technologies as well as support measures for implementation;
- Information and awareness about waste prevention;
- Identification of product-specific criteria for product design;
- Promotion of structures for the re-use or multiple use of products;
- Promotion of approaches to preventing food waste;
- Greater consideration of waste avoidant aspects of the operation of industrial plants;
- Consideration of waste avoidant components in environmental management systems;
- Consideration of waste issues in public procurement; and
- Source-based disposal costs as incentives for waste prevention.

**Greece** did not respond to this question, as its WPP was under preparation at the time of reporting.

In **Hungary**, the overall objective of the National Prevention Plan is to introduce measures:

- facilitating the separation of the use of resources from economic growth;
- reducing the use of materials and the generation of wastes;
- contributing to the implementation of a more efficient resource management;
- contributing to the increased life-cycle of products;
- facilitating the application of solutions with the lowest possible environmental impacts during their life-cycle; and
- facilitating job creation.

The Action Programme of the NPP describes those areas in which **Hungary** should take appropriate steps to promote the prevention of waste generation and to ensure an as successful as possible implementation thereof. The Action Programme provides for five sets of measures to identify those areas of intervention which should be addressed as high-priority issues during the 2014–2020 period:

1) Prevention of the generation of construction/demolition wastes;
2) Re-use;
3) Green public procurement;
4) Environmentally aware production and corporate operation; and
5) Awareness-raising.

**Ireland** provided web links to pages at which it reported the structure of the WPP is set out:

In **Italy**, the WPP contains the prevention targets and measures to reduce the production of both general and specific waste for certain priority product/waste streams. The general measures cover sustainable production, green public procurement, re-use, information and awareness-raising. The priority streams covered by specific measures are biodegradable waste, with particular reference to food waste, paper waste and packaging.

In **Latvia**, significant examples of measures designed to break the link between economic growth and the environmental impacts associated with the generation of waste include the following:

1) Waste prevention is indicated as a priority in the Waste Management Law as well as the National Waste Management Plan 2013-2020.

2) Natural resource tax is imposed on waste disposal, plastic shopping bags, packaging, vehicles and environmentally harmful goods.

3) To provide a closer link between scientific research and the needs of economic sectors, the Cabinet approved priority areas of science to finance both fundamental and applied studies for the period 2010-2013. Priority areas include: Natural Resources, Energy and Environment, Sustainable Use of Local Resources, New Products and Technologies.

4) The Waste Management Law, the Packaging Law and the End-of-Life Vehicle Management Law lay down the requirements as to the eco-design of certain categories of goods, especially the restrictions on use of various hazardous chemicals.

5) At present, the eco-design requirements are listed in Cabinet Regulation No 941 of 6 December 2011 “Regulation on the Eco-design Requirements for Energy-Related Goods (Products)“.

6) Plastic shopping bags are subject to NRT at differentiated rates: higher rates are applied to traditional plastic bags depending on their uses and management options, while considerably lower tax rates are fixed for packaging made of bioplastics and oxy-degradable plastics.

In **Lithuania** in order to break the link between the generation of waste and economic growth, the draft National Waste Prevention Programme for 2014-2020 sets out the following objectives:

1) to seek that given the growth of industry and economy, the generation of waste in production, construction and other sectors of economic activity would grow slower and the amount of waste generated would not exceed the average of the EU Member States; and

2) to seek that given the growth of consumption, the generation of municipal waste including packaging, waste electric and electronic equipment and biodegradable waste would grow slower and the amount of municipal waste generated would not exceed the average of the EU Member States.

The first objective will be implemented by encouraging waste prevention in production and other sectors of economic activity; increasing the efficiency of materials and
resources used; raising awareness of enterprises, farmers and employees of agricultural companies and supervisory authorities in the area of waste prevention.

The second objective will be implemented by improving the legislation in the area of waste management, laying down requirements relating to the prevention and re-use of waste generated in the municipal waste stream, promoting sustainable consumption, encouraging the re-use of products and actions to prepare products for such re-use, public awareness raising and ensuring professional development of the municipal staff in the field of waste prevention.

**Luxembourg** has three waste prevention projects that have been approved by the European Commission, DG Environment as "best practice" in the prevention of waste:

- SuperDrecksKëscht®;
- Clever akafen Eco-Label (consume malignant); and
- Eco-bag (reusable shopping bags).

Besides these three projects, **Luxembourg** has implemented other projects for waste prevention, including: sustainable holidays, reusable cups of promotional events, promotion of tap water, preventing food waste, paperless offices, promoting repair and re-use, and eco-friendly packaging.

All these projects will be described in more detail in the waste prevention plan that is under preparation. In addition, the Act of 21 March 2012 provides that, upon the request of the Environmental Administration, institutions should develop a waste prevention plan. This requirement is already applied regularly as part of the application for authorisation records for classified establishments.

**Malta** responded that this question was not applicable, owing to the fact that no WPP was in place during the reporting period.

In **Poland**, elements of the WPP intended to break the link between economic growth and the environmental impacts associated with the generation of waste include:

- Development and intensification of the separate collection scheme, in particular for hazardous waste (this helps reduce the amount of hazardous waste).
- Environmental education promoting waste prevention and proper handling of waste (including separate collection).
- Support for the introduction of low-waste production technologies and technologies ensuring that all components of raw materials are used, as far as possible.
- Promotion of the implementation of environmental management systems and techniques as effective tools for supervising and improving environmental aspects of activities.
- Use of green public procurement, i.e. taking account of environmental criteria when drawing up specifications in publicly financed tender procedures.
- Implementation of separate collection schemes, also for biodegradable waste.
- Implementation of systemic, regional and comprehensive waste management solutions.
- Development of clean technologies.
- Modification of product distribution processes.
In **Portugal**, the Prevention Programme for Municipal Waste (PPRU) clearly identifies the problem of decoupling economic growth from the environmental impacts associated with the generation of waste. Accordingly, implementation of the PPRU raises significant challenges, both for the public administration, as the authority responsible for promoting policy implementation and defining its legal and administrative framework and other instruments necessary for its implementation, and for the other stakeholders in that process, whether bodies responsible for waste management or other operators, directly or indirectly active in the production-consumption chain.

In that context, a Collaboration Agreement was concluded between the APA, EGF (Empresa Geral do Fomento), and the EGSRA (Association of Undertakings Managing Waste Systems) and the Municipal Waste Management Systems, signed on 27 November 2009, during the European Week for Waste Reduction, and thus constituting the first step in implementing the PPRU and establishing the contributions and obligations of each party in that area. That Agreement aims to consolidate the prevention aspect in the implementation of the Action Plans for Municipal Waste Management Systems, seeking to contribute towards reducing waste generation and minimising the negative impacts of waste management.

With regard to the above Draft National Waste Management Plan, which will include the Waste Prevention Programme, its underlying vision and the strategic and operational objectives proposed reflect the WFD approach, focused on boosting waste prevention, using an approach which takes into consideration the entire life cycle of products and materials (not just the waste generation phase) and reducing the environmental impacts associated with waste generation and management.

**Romania** had not drafted any prevention plan regarding waste production, so there were no such elements to be pointed out.

**Slovakia** did not respond to this question, due to the fact that no WPP was in place during the reporting period.

**Slovenia** did not respond to this question, owing to the fact that it has not established a WPP.

In **Spain** the draft state waste prevention programme analyses the situation of prevention in European policy and in the Spanish legislation on waste, as well as the existing prevention measures in **Spain**, assessing their degree of effectiveness, in order to then establish the four strategic lines of the programme. Priority action areas are identified for each of these lines (products where the prevention measures should be primarily focused), and any measures that have been identified as the most effective in the earlier analysis are proposed\(^{98}\). A series of indicators is also proposed to assess their effectiveness.

\(^{98}\) The measures have been classified according to the classification included in Annex IV WFD.
The strategic lines and priority areas are listed below (some of these areas have been added after the public consultation phase):

- **On reducing the amount of waste.** The priority areas are:
  1. food waste;
  2. construction and demolition;
  3. packaging; and
  4. disposable products.

- **On promoting re-use and extending life span.** Taking into account that the measures aimed at reusing products or extending their life span play an essential role in effectively reducing the amount of waste generated, and that these options also have significant economic and social benefits, it has been considered that re-use and extending life span should be the object of a specific strategic line of this programme. The priority areas are:
  1. furniture, textiles, toys and books;
  2. electrical and electronic equipment;
  3. packaging, especially commercial and industrial; and
  4. tyres.

- **On reducing the content of harmful substances in materials and products.** The priority areas are:
  1. chemical synthesis;
  2. batteries,
  3. vehicles and
  4. electrical and electronic equipment.

- **On reducing the adverse impacts of the waste generated on human health and the environment.** The priority areas are:
  1. electrical and electronic equipment;
  2. vehicles; and
  3. packaging.

In **Sweden** the proposal for a Swedish national waste prevention programme is focused on both reducing waste amount and hazardousness of products and materials. The programme is also focused on four waste types: Food, textiles, electronics and building and construction waste. In total, the proposal for a program consists of 8 goals and 138 measures to reach them. The first two goals concerns waste in general and the rest of the goals concern each of the four waste types.

Some examples of measures in the proposal for a programme are:

- Investigate effective policies to prevent waste;
- Investigate how administrations can use waste prevention criteria in public procurement;
- Information campaign to the public on reducing food waste;
- Second hand divisions in clothes shops; and
Investigate how we can change the law on new buildings in order to be able to demand waste prevention measures during the building process.

We have also investigated four measures and policies further. They are: Deductible repair services, a notebook for buildings on all the materials put in buildings, lowered cooling in the grocery chain and an information campaign on lowering food waste.

In the United Kingdom various waste prevention methods have been used to try and break the link between economic growth and waste generation, many of which will be built into the Waste Prevention Programmes when they are published, although some of those Plans have yet to be finalised. The Welsh Government has set a target to reduce the quantity of waste generated by weight in Wales by between 1.2% and 1.4% by 2050 in all major waste streams from a 2006/7 baseline. The aim of an absolute reduction in waste arising combined with policies in place to encourage economic growth should see decoupling of economic growth and waste arising occur. There is a UK-wide initiative to encourage prevention of food waste known as Love Food Hate Waste. The Welsh government is building on this with an engagement campaign designed to encourage consumers to consider their consumption patterns and promote re-use facilities. Further UK-wide waste prevention initiatives include the Courtauld Commitment, Hospitality and Food Services Agreement and the Home Improvement Sector Commitment. All of the above are voluntary agreements with industry to reduce waste arising.

The Welsh Government view eco-design and eco-innovation as important initiatives for reducing material consumption, waste generation and wider environmental impacts. It has a number of funded projects to deliver in this area including The Product Sustainability Forum, which provides evidence of environmental “hotspots”, researches strategies for reducing impacts, publishes guidance notes to businesses and manages pilot projects to provide case studies and test theories, Eco-Innovation intervention targeting sectors and businesses where there is greater potential for resource efficiency gains through eco-innovation, and providing staged interventions according to where businesses are on their ‘innovation journey’, and Resource Efficient Business Models delivered via WRAP to test the feasibility of introducing more resource efficient business models with a focus on high-impact products, including electrical and electronic products, clothing and furniture, and the services that use them.

The Welsh Government has also researched the potential for increasing the re-use of goods from households and businesses, with particular emphasis on electronic and electrical equipment, furniture and clothing. The aim would be to encourage the re-use of good quality items as a substitute for new purchases. A “network” concept is being investigated – including communications, a central telephone service, and infrastructure development. Voluntary extended producer responsibility and a voluntary agreement are being assessed for their suitability in increasing re-use in Wales.

Scotland’s Zero Waste Plan committed to publishing a national Waste Prevention Programme in line with the requirements of the Waste Directive. There are many actions planned. One already established is “Resource Efficient Scotland”, which is a programme which brings together support to Scottish businesses and other stakeholders on the...
efficient use of energy, water and raw materials. In addition, it will work strategically to change the way products and services are designed and used. The aim of this is to move Scotland towards a more circular economy where nothing is wasted. Re-use is another major element of the Waste Prevention Programme, Zero Waste Scotland (ZWS) are encouraging re-use and resource exchange through the development of the “ZWS Resource Exchange”, an online tool that will help businesses find solutions that re-use resources and encourage the use of materials with recycled content.

3.15.3 Success of Waste Prevention Programmes (WPP)

Question 16 (iii): Please report on any progress waste prevention programmes have produced during the reporting period and indicate the evolution of waste generation over the reporting period.

Article 29 (3), which is the relevant article for the question, requires that Member States monitor and assess progress made by waste prevention measures against specific qualitative or quantitative benchmarks. Question 16 (iii) asks for a report on any progress Member States may have thus identified during the 2010–2012 period.

14 Member States reported on at least some progress made in their replies since 2007-2009 as a result of their WPPs. The detailed replies are summarised below.

As with their replies regarding decoupling measures, Austria and Finland provided only high level, vague replies with no specifics of real progress given. Bulgaria, Cyprus, Denmark, Greece, Malta, Slovakia, Slovenia and Romania all had not published WPPs at the time of reporting and were therefore not able to report any progress made. In addition, despite having drawn up WPPs Germany did not report on any progress made as a result of its WPPs, only reporting that it is working to implement the programmes.

Examples of progress and potential indicators of good practice come from those Member States which reported that they have implemented charges on single use carrier bags: Luxembourg has reported that it has seen a drop from 70 million bags used in 2002 to 2 million used in 2012, and Spain has reported that it has seen a 30% reduction in use from 2008 to 2011.

Member States replies are summarised below:

In Austria progress has been made in particular in the areas of food waste prevention and raising awareness around and establishing networks for re-use.

Bulgaria responded that its WPP was currently being drawn up at the time of writing.

Croatia, responded that this question was ‘not applicable’ (as the country’s WPP had not yet been implemented at the time of reporting).

Cyprus responded that its WPP had not yet been adopted.

In the Czech Republic, in the period of the evaluated Waste Prevention Programme of the Czech Republic (2002 – 2011) there was general positive development in waste management. In the 2002 – 2011 period there was a drop in overall waste generation
from 38.0 million tonnes to 30.7 million tonnes (i.e., by 19%). The generation of hazardous waste dropped in the same period from 2.4 million tonnes to 1.8 million tonnes (i.e., by 25%). The generation of other category waste in this period also fell from 35.5 million tonnes to 28.8 million tonnes (i.e., by 19%).

Expressed as generation per inhabitant the drop in waste generation was even more significant in view of the growth in the number of inhabitants. For other waste there was a drop of 734 kg / person (i.e., by 21%), for hazardous waste a drop of 62 kg / person (i.e., by 26%) and in overall generation a drop of 796 kg / person (i.e., by 21.5%). In the 2002 – 2011 period growth was recorded for municipal waste generation from 4.6 million tonnes (2002) to 5.4 million tonnes (2011) (i.e., by 17 %), caused among other things by a different method for monitoring the generation of municipal waste in recent years.

**Denmark** has not prepared a WPP. The current Waste Strategy ’10 contains initiatives concerning waste prevention.


For **Estonia**, no positive results achieved through this specific programme can be reported, because the programme is still in draft stage. However, the existing waste management plan currently in force does describe measures to reduce waste generation (see reply under point 2 of this report). The introduction of the best possible technology has mainly contributed to waste prevention and reduction of the harmfulness of waste in the oil shale industry. The proportion of re-use is showing a rising trend. The deposit system for the packaging of beverages, beer and low-alcohol beverages has helped to keep the use of re-usable bottles at a remarkably high level.

In **Finland**, there are several on-going projects to enhance material efficiency which best indicate the progress of waste prevention. The Ministry of Environment has carried out a project on material efficiency in the construction and demolition sector to improve material efficiency in the C&D sector. Also a national material efficiency programme is under way. Several regional or municipal waste companies also have waste prevention programs or projects concerning waste prevention or material efficiency.

In **Germany**, the federal government plans to work with individual federal states and operators to carry out a process to implement the program.

**Greece** did not respond to this question, as its WPP was under preparation at the time of reporting.

In **Hungary**, the National Prevention Programme will be prepared by 12 December 2013, and the regional programmes will be prepared thereafter.

In **Ireland**, indicators tables from the most recent National Waste Report (2011) show decreasing waste generation in most of the waste streams and improved levels of recovery. This has also to be factored against a rising population. **Ireland** has stated that it is efficient in terms of the level of waste generation per capita.
In **Italy**, waste production has fallen in recent years. However, although some regions already have specific programmes and prevention measures in place, it is not currently possible to attribute the reduction in waste production to the programmes and measures already adopted. Municipal waste in 2011 stood at around 31.4 million tonnes, a 3.4 % reduction on 2010. Preliminary data for 2012 show a further fall of 4.5 % compared with 2011. The general trend in municipal waste production is in line with socio-economic indicators such as GDP and household consumption. In 2010, there was a 2.4 % increase in special waste in general compared with 2009, while the production of hazardous special waste fell by 6.3 %.

In **Latvia**, the waste prevention programme was not implemented in the reporting period because the National Waste Management Plan 2013–2020 was adopted by the Cabinet on 26 February 2013. Moreover, Latvia would like to refer to Article 29(1) of Directive 2008/98/EC whereby Member States must establish waste prevention programmes not later than 12 December 2013.

In **Lithuania**, green public procurement procedures are implemented. When conducting public procurement procedures for goods, services and works, governmental bodies and other state authorities and institutions reporting to the Government of the Republic of Lithuania, the Prime Minister’s Office, ministries, agencies under ministries and other state authorities and institutions reporting to ministries subject to environmental criteria must apply those environmental criteria by number and by value in at least 25% of public procurement procedures in 2012, at least 25% – in 2013, at least 30% – in 2014 and at least 35% – in 2015, with some exceptions.

Since 2006 Lithuania has had a system of collateral for reusable beverage packaging administrated by a public body DESA set up by the five largest beer breweries. Although the purpose of the mandatory collateral for reusable beverage packaging is to encourage the re-use of reusable glass bottles, according to DESA’s data for 2007-2011, the supply of beverages in packaging subject to the collateral to the Lithuanian market dropped by 30%.

The successful implementation of waste prevention in 2011 is also confirmed by the decreased ratio of the production and other economic activity waste collected to the GDP, as shown in Table 3.2.

### Table 3.2: GDP and Waste Production in Lithuania

<table>
<thead>
<tr>
<th></th>
<th>2010</th>
<th>2011</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production waste collected per GDP unit, tons/LTL million</td>
<td>42,619</td>
<td>38,934</td>
</tr>
<tr>
<td>Quantity of production waste, t</td>
<td>4,052,000,000</td>
<td>4,141,377,179</td>
</tr>
<tr>
<td>GDP, LTL million</td>
<td>95,074,260</td>
<td>106,369,941</td>
</tr>
</tbody>
</table>
In **Luxembourg**, the ‘Eco-bag’ project to reduce single-use carrier bags has fared well. At the beginning of the operation in 2004, the Eco-Bag was sold in parallel with disposable shopping bags given free at supermarket checkouts. In 2008, a smaller Eco-Bag format was put on the market for small daily purchases. In 2007, the distribution of free bags was stopped and replaced with the sale of bags at 3 cents. It is from this point that the consumption of single-use bags has fallen sharply. While in 2002 there were still 70 million single-use plastic bags distributed by trade this dropped to 2 million in 2012. Therefore, during the years 2007–2012 approximately 2358 tonnes (equivalent to about 306 million individual bags) of material was saved.

**Malta** responded that this question was not applicable, owing to the fact that no WPP was in place during the reporting period.

In **Poland**, it is hard to assess trends and effects after only 3 years. It may, however, be pointed out that the total volume of waste generated since 2000 has stabilised and only minor changes oscillating around the average value have been reported. Unit waste generation rates have been steadily decreasing since 2000 with respect to GDP. In the long-term perspective, data show that the increase in the volume of generated waste continues to be separate from the economic growth (GDP).

In **Portugal**, based on Community targets relating to waste prevention, national objectives were established in the PPRU, defining priorities, identifying waste streams and key stakeholders and presenting a national strategy for the prevention of municipal waste, with its associated action and monitoring plan.

The adoption of the PPRU sought to contribute towards attaining one of the major aims of environmental policy: the decoupling of waste generation from economic growth, which it intends to continue to promote, since it is underpinned by high standards of sustainability. That Plan also aims to reduce the quantity and hazardous properties of municipal waste, which will mitigate the negative environmental impacts associated with its management, and at the same time to introduce rational, moderate and balanced elements in the use of natural resources, with clear benefits for the environment, including in the area of combatting climate change.

As regards the quantitative results obtained, and given the target set at national level, in the form of a reduction, as compared with the 2007 figures, of 10% of per capita daily municipal waste by 2016, municipal waste generation remained stable in 2009 and 2010, and was even showing a downward trend by 2012, since in that year per capita daily municipal waste reached the reference level. In general, it may be inferred that there was a positive trend towards meeting the objectives of the PPRU, in view of the reduced generation of municipal waste since 2009. It is possible that the economic crisis occurring over that period, which led to a reduction in private consumption and therefore in municipal waste generation, may have contributed to that trend.

**Romania** had not drafted a WPP at the time of reporting.
**Slovakia** did not respond to this question, due to the fact that no WPP was in place during the reporting period.

**Slovenia** did not respond to this question, owing to the fact that it has not established a WPP.

In **Spain** the draft state waste prevention programme is yet to be approved and it is not possible to evaluate the progress made based on the new indicators included in this programme, however, evolution of the generation of waste under municipal responsibility and packaging waste can be discussed. Upon analysing the evolution of the generation of waste under municipal responsibility in **Spain** in the last ten years it is observed that generation was increasing up to the year 2008, and then decreased from that time, such that levels similar to those of 2006 were reached in 2011.

As regards single-use shopping bags, around 13.5 billion plastic bags were produced in Spain in 2008, and around 2.08 billion paper/cardboard bags that year, which meant generating around 98,800 and 41,600 tonnes of annual waste respectively (300 plastic bags/inhabitant and around 47 paper/cardboard bags per inhabitant). In 2010, the waste generated from single-use non-biodegradable plastic bags was reduced to 89,000 tonnes (approx. 10% reduction), and 70,000 tonnes in 2011 (30% reduction), as a result of the distribution sector adopting measures (mainly setting a price for the bag), as well as the authorities and the public, in fulfilment of the objectives set out in the PNIR in relation to reducing bag consumption. More detailed information on other waste streams is available in the draft State programme.

In **Sweden** the Swedish waste prevention program is planned to be adopted on 12th of December 2013. It has currently been referred to organizations, agencies and municipal administrations for consideration. We expect be able to report any progress in a few years’ time.

In the **United Kingdom** data for the reporting period is only available for Household Waste. This is detailed in Table 3.3 to Table 3.7 below.
### Table 3.3: Municipal Waste Arising in England, 2009/10–2011/12

<table>
<thead>
<tr>
<th>Year</th>
<th>Tonnage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009/10</td>
<td>23,700,000</td>
</tr>
<tr>
<td>2010/11</td>
<td>23,453,695</td>
</tr>
<tr>
<td>2011/12</td>
<td>22,900,000</td>
</tr>
</tbody>
</table>

### Table 3.4: Municipal Waste Arising in Scotland, 2009/10–2011/12

<table>
<thead>
<tr>
<th>Year</th>
<th>Tonnage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>3,413,702</td>
</tr>
<tr>
<td>2010</td>
<td>3,288,067</td>
</tr>
<tr>
<td>2011</td>
<td>3,141,202</td>
</tr>
</tbody>
</table>

### Table 3.5: Municipal Waste Arising in Wales, 2009/10–2011/12

<table>
<thead>
<tr>
<th>Year</th>
<th>Tonnage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009</td>
<td>1,387,849.81</td>
</tr>
<tr>
<td>2010</td>
<td>1,343,532.29</td>
</tr>
<tr>
<td>2011</td>
<td>1,329,201.84</td>
</tr>
</tbody>
</table>
### Table 3.6: Municipal Waste Arising in Northern Ireland, 2009/10–2011/12

<table>
<thead>
<tr>
<th>Year</th>
<th>Tonnage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009/10</td>
<td>1,004,020</td>
</tr>
<tr>
<td>2010/11</td>
<td>985,176</td>
</tr>
<tr>
<td>2011/12</td>
<td>949,491</td>
</tr>
</tbody>
</table>

### Table 3.7: Municipal Waste Arising in Gibraltar 2009/10–2011/12

<table>
<thead>
<tr>
<th>Year</th>
<th>Tonnage</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>18,111</td>
</tr>
<tr>
<td>2011</td>
<td>17,691</td>
</tr>
<tr>
<td>2012</td>
<td>16,926</td>
</tr>
</tbody>
</table>

**Conclusion:**

17 Member States have reported that they have published WPPs at the time of reporting for 2010-2012, of which all but Austria and Germany were able to report on specific elements aimed at decoupling economic growth and the environmentally deleterious effects of waste generation and were furthermore able to report on progress made in waste prevention having established some kind of monitoring.

A total of eight Member States reported that they had not published WPPs. 4 of these countries (Bulgaria, Croatia, Greece and Malta) reported that they were in the process of drawing up WPPs, and furthermore Cyprus reported that it had begun preparing for a tender process for the creation of a plan. Denmark and Slovenia reported that they had not published WPPs, nor did they state any intention of doing so, although Denmark’s reply noted that it has included waste prevention measures in its Waste Strategy. Romania reported that it has not published WPPs and did not state whether it intends to do so in the future, as the only information it submitted in its reply concerned having met with industry to discuss which waste prevention measures would be best for the domestic market.

Countries which had not published WPPs were generally unable to report on decoupling measures and progress made, the exception being Croatia which submitted a strong list of decoupling measures which it reported that it intends to include in its forthcoming WPP. The other Member States reported on measures of decoupling such as...
as the source based disposal costs found in Germany and the Natural Resource Tax on harmful products found in Latvia.

3.16 Inspections

Question 17: Please describe briefly the system of periodic inspections referred to in Article 34 of Directive 2008/98/EC, indicating frequency and depth of inspections. Please further indicate the available administrative capacity in the Member State for carrying out such inspections. Has the Member State made use of the Commission’s guidance on permitting and inspections?

Article 34, which is the relevant article for this question, requires that establishments and undertakings treating, transporting, brokering or dealing in waste must be subject to periodic inspections by the competent authorities, as must establishments and undertakings producing hazardous waste. Question 17 asks Member States to describe the inspection system they have put in place.

22 Member States submitted detailed information on the frequency and depth of inspections in their replies. Not all of these replies indicated the administrative capacity available to them for carrying out inspections, but this capacity is not mentioned in the Waste Framework Directive. The detailed replies are summarised below.

In addition Austria reported on the frequency of inspections but not on their depth. Croatia reported on its legislation on inspections. Sweden’s reply did not address the requirements surrounding the inspection of the collection and transport of waste.

Member States replies are summarised below:

In Austria, Integrated Pollution Prevention and Control, in accordance with § 63a AWG 2002, requires a minimum frequency of inspections every three years. In accordance with AWG 2002 facilities are subject to review every five years at the minimum.

The responsibility for carrying out these inspections falls to the regions, for which around 15 inspectors are available. However, these inspectors do not exclusively carry out inspections in accordance with Article 34 of the Directive but are also responsible for inspections in accordance with other environmental legislation.

In Bulgaria, Chapter Five, Section V of the ZUO specifies the authorities responsible for exercising control over waste management. The control authorities conduct examinations of documents and/or on-site inspections, each acting within their competence. The documents required under the ZUO and the statutory instruments of secondary legislation for its implementation from waste dealers and brokers and from persons whose operations involve the production of waste, and/or persons carrying out waste-related operations, are examined at least once a year.

An on-site inspection is independent of the examination of documents and is performed at least once a year on the premises where the operations take place and in the presence of the person inspected or persons employed by said person. In the absence of such persons, the inspection is performed in the presence of at least one witness.
Inspections of collection and transport operations cover the origin, nature, quantity and destination of the waste collected and transported.

If any documents certifying compliance with the requirements are found to be missing during an on-site inspection, the person inspected is given a seven-day deadline to present these documents. Upon conduct of the inspections, the control authorities draw up memorandums of ascertainment and/or written statements on ascertainment of administrative violations. If any violations are identified, the control authorities issue a mandatory prescription and set a time limit for remedying the violations and/or draw up written statements on ascertainment of administrative violations.

In **Croatia**, Chapter 10 of the Sustainable Waste Management Act (Articles 141–166) regulates the system of inspection of the application of the Act and the regulations adopted pursuant to the Act. Article 143(2) of the Act stipulates that inspectors shall examine, among other things: compliance with any requirements laid down with respect to carrying out waste management operations; the keeping of records on the generation and stream of waste; the required submission of reports and data to competent administrative bodies and the Agency; compliance with conditions for the transboundary movement of waste; the legality of permits for the collection, recovery and/or disposal of waste; compliance with conditions, work methods and the implementation of measures for the closure, remediation and maintenance of remediated landfills; and the implementation of waste management measures laid down in the environmental impact assessment.

Under Articles 256 and 257 of the Environmental Protection Act (OG 80/13), the environmental protection inspectorate shall compile an annual work report and shall inform the public of it on the Ministry’s website.

**Cyprus** carries out inspections to ensure that the permit conditions are met as well as to investigate complaines on a regular basis. For 2012, the Department of Environment conducted 620 controls and inspections to producers, and management installations of the following type of wastes: Packaging Waste, Electrical and Electronic Waste, End-of-life vehicles, Batteries and accumulators, Hazardous Waste, Used Oil wastes, waste tires. The frequency of inspections to waste management facilities is in most cases once a year.

In the cases of not compliance all the relevant legal measures are taken. These measures include: letters of compliance, fines, and reports to Legal Service for taking the case to court. The inspection capacity in 2012, consisted of 12 inspectors (5 permanent staff that handle other types of inspections (IPPC, Water Pollution Control) and 4 inspectors with a yearly contract for providing services through tender awards). **Cyprus** is taking into account the Commission’s guidance.

In the **Czech Republic**, the Czech Environmental Inspectorate (CEI) is the expert state administration body authorised to supervise compliance with legal environmental standards, including waste management. It also monitors compliance with binding environmental decisions of administrative bodies. The CEI is an independent branch of the state established by the Ministry of the Environment of the **Czech Republic**. The CEI
has around 75 inspectors in the Czech Republic monitoring compliance with the Waste Act. On average each inspector performs 40 inspections a year.

The CEI inspects selected waste management installations every year (e.g., installations for disposing of waste – hazardous waste landfills, or installations for the energy recovery of waste), once every two to three years (waste incinerators, other waste landfills, decontamination installations or lines), and potentially also with a longer interval of four years or more (generators of hazardous waste, collection and purchase of waste, inert waste landfills). Inspections of installations with integrated permits are subject to intervals arising from the Act on Integrated Prevention, which implemented the requirements of the applicable IPPC directive.

Every year 2,100 inspections are performed on average by inspectors monitoring compliance with the Waste Act. Concretely 319 inspections of landfills, incinerators and decontamination installations were performed in 2012, another 287 inspections of installations for the use of waste (recultivation, landscaping, manufacture of fuels and recyclates, composting plants and biogas stations, another 383 inspections of waste collection centres, 150 inspections of installations processing vehicle wrecks, 137 inspections of product take-back, and 790 waste producers.

In Denmark, undertakings covered by the approval obligation under the provisions of Directive 2010/75/EU on industrial emissions (IED) are subject to inspections in the form of risk-based inspections based on an environmental score. Prior to 23 May 2013, a minimum frequency agreement was in place with the municipal authorities concerning inspections. After 23 May 2013, a new inspection model was introduced. This new inspection model therefore now applies, and as it will only be possible to present figures for the new inspection system after the annual reports have been received, comprehensive data will not become available until the inspections to be carried out in the summer of 2014 have been completed.

The inspection authorities must carry out active environmental inspections; see Article 65 of the Environmental Protection Act and Order no 497 of 15 May 2013 on environmental inspections (the Environmental Inspection Order). Inspections must be carried out to ensure that undertakings comply with the Environmental Protection Act, Soil Pollution Act and provisions issued pursuant to these two Acts. In addition, inspections must be carried out to ensure that orders and bans are complied with and that conditions in environmental approvals and permits are met.

With the Environmental Inspection Order, a system for environmental inspections was introduced with effect from 23 May 2013, with the primary objective of monitoring undertakings and livestock farms where the need is greatest. The Environmental Inspection Order sets out a number of instruments which the authorities can use to achieve this objective. One of these instruments is systematic access to establish an inspection frequency through an environmental risk assessment. The system applies to all undertakings that are subject to environmental inspections, encompassing everything from large IED undertakings to small one-man car workshops.
Denmark has not made use of the Commission’s guidelines on permitting and inspections.

In Estonia, Section 119 of the Waste Act sets out the conditions related to supervision. State supervision over compliance with the requirements arising from the Act is exercised by the Environmental Inspectorate and local governments or local government agencies in accordance with the procedure provide for in the Environmental Supervision Act. Supervision over the compliance of the activities relating to waste of persons holding a waste permit, persons registered with the Environmental Board and persons generating hazardous waste shall be exercised regularly. Supervision is not carried out over production of waste in households.

The Environmental Inspectorate is obliged, at least once annually, to inspect the compliance with waste management conditions determined by the waste permit of operators of landfills and persons holding a hazardous waste management licence and the compliance of the activities of producer responsibility organisations with the requirements provided by the Waste Act. Local governments must exercise constant supervision over compliance with the local government waste management rules within their administrative territories. Supervision over activities related to the collection and transport of waste covers the origin, type, quantity and destination of the waste being collected or transported. In addition to the Environmental Inspectorate, supervision is also carried out by the Consumer Protection Board, the Tax and Customs Board, the Technical Surveillance Authority and the Rescue Board in the cases provided for in the Waste Act.

The Member State has made use of the Commission’s guidance on permitting and inspections. The administrative capacity required for the performance of checks is good in some sectors but needs further improvement in certain cases. For example, the collection and buying up of waste metal is problematic. High metal prices motivate people to steal metal objects and sell them as waste.

In Finland, the responsible supervision authorities that carry out the inspections are the Centres for Economic Development, Transport and the Environment (ELY-Centres) which are State authorities, and municipal environmental protection authorities. The division of jurisdiction is dictated by the size and the type of the operation. There are 13 regional ELY-Centres that are responsible for environmental issues. The number of municipalities was 320 in the beginning of the year 2013. According to Section 124 of the Waste Act 646/2011, the supervisory authority shall, at regular intervals, duly inspect facilities and operations that generate hazardous waste, as well as the operations of waste carriers and waste dealers.

Provisions on inspections of operations subject to an environmental permit are given in the Environmental Protection Act (86/2000) and Decree (169/2000). The supervisory authority must carry out inspections of activities which have been granted a permit as often as is necessary in order to monitor operations. Inspections must also be carried out in response to requests by an operator, an interested party or anyone else, except in cases where an inspection must be considered as manifestly unnecessary. The
authorities shall draw up a separate plan for inspection work where this is deemed necessary. A record of the inspection shall also be drawn up. (Environmental Protection Decree, Section 29). The available administrative capacity in the ELY-Centres for carrying out environmental protection duties was approx. 94 person-years in 2012. The number of personnel carrying out environmental protection duties in municipalities was approx. 460 person-years in 2009.

In the Åland Islands the authority has an established surveillance plan for the regular fee-based supervision. All businesses with permit requirements are divided into groups with different years in order supervision. The higher risk profile, the tighter oversight interval. Treatment facilities that handle hazardous waste are inspected once a year, while other treatment facilities like compost plants and scraps are inspected every three years. Manned collection sites, landfills for inert waste and transporters of hazardous waste are inspected every six years. The authority has about half a service available to the oversight of businesses that handle waste. The Commission’s guidance on permitting and inspections has not been used.

In Germany, Article 34 of the Directive is transposed by § 47 paragraph 2 KrWG which provides obligation to regularly carry out regulatory reviews. Events based inspections are also to be carried out. Documentation and records are to be checked for compliance with the provisions of the permit. In addition, inspections also cover collectors and transporters of waste in accordance with Article 34, paragraph 2 of the Directive, regarding the origin, nature, quantity and destination of the waste collected. An administrative capacity is available of around 250 persons. The Commission’s guidelines were partly used.

In Greece, the competent authorities (Environmental Inspectors and other environmental services in the Ministry for the Environment, Energy and Climate Change, or in regional authorities) carry out periodic and random inspections in waste production, storage, disposal / recovery facilities. The inspections frequency depends on the waste type, the terms of storage / disposal / recovery, the capacity of the facility. Moreover an inspection is obligatory before issuing or amending environmental permits. There are administrative difficulties due to the lack of staff in the competent for inspection authorities.

In Hungary, the inspectorates carry out their activities according to an annual plan, prepared in line with the national and local priorities. Also, inspections are made into specific reports. A compulsory once-a-year inspection is required by law in two cases: activities subject to integrated environmental use permitting (IPPC) – which include waste management activities – must be inspected once a year; and pursuant to the Government Decree on vehicles that have become waste, fulfilment of the obligations specified in that Decree are inspected annually by the environmental authority with the involvement of the traffic inspectorates of the metropolitan and county government offices. Inspections not provided for in the plans are procedures initiated upon reports on the part of the inhabitants. The complaints and reports are quite heterogeneous, and the administration thereof requires significant expenditure on the part of the authorities.
The majority of the inspections explore the effects of the activities on all environmental compartments, with the exception of, for example, certain noise protection and air quality protection inspections. In 2011, the total permitted number of personnel at the 10 regional inspectorates and the inspectorate-general was 1,593. In 2012, the total permitted number of personnel at the 10 regional inspectorates and the inspectorate-general was 1,357. The reason for the reduction in the number of personnel is the implementation of Government Decree No 1004 of 11 January 2012 on the reduction of the number of government personnel.

In Ireland, the Department of the Environment and Local Government reported that “A consistent approach to implementation of the Recommendation is desirable” and asked the EPA to co-ordinate the preparation of guidance for local authorities on its implementation. The EPA has produced guidance on how the Recommendation should be implemented in Ireland and sets out the requirements for implementation of the Recommendation at local authority level. The EPA also developed its own enforcement plan in line with the Recommendation. The EPA enforces 200 waste licences, the majority of which are either landfills or waste transfer stations. Local Authorities regulate almost 650 Waste Facility Permits, and 2,500 Waste Collection Permits and Certificates of Registration.

In 2010, the EPA adopted a new strategy for its enforcement of the waste sector, setting out what priority areas are due the focus of enforcement. While these may vary year on year and other site-specific issues may merit consideration, the aim is that the regulated community can know what to expect from the regulator. Separate plans were developed for the transfer station and landfill sectors. These plans were notified to and discussed with trade sectoral organisations (IBEC, Irish Waste Management Association) as well as directly communicated to all licensees. This approach results in more focused inspections and better tracking of key environmental outcomes. The EPA carried out an average of 320 audits and inspections each year with specific attention directed towards more problematic sites (e.g. odour-causing landfills) in the higher enforcement categories (A-sites).

Resource wise, there are in the region of 120 dedicated waste enforcement officers employed in the local authority sector. On the EPA side, the Office of Environmental Enforcement (OEE), operating through 5 regional inspectorates, has in the region of 60 inspectors working across all sectors (not just waste).

In Italy, Article 197 of Legislative Decree No 152/2006 states that the necessary audits and inspections may be carried out by personnel from the environmental protection unit of the Carabinieri and by the provincial authorities. Establishments and undertakings that produce hazardous waste, undertakings which collect and transport waste on a professional basis and establishments and undertakings which dispose of or recover waste are subject to appropriate periodic inspections by the provinces, ensuring in particular that appropriate periodic inspections are carried out on activities subject to the simplified procedures referred to in Articles 214, 215 and 216, and that inspections concerning the collection and transport of hazardous waste primarily concern the origin and destination of the waste.
When planning audits and inspections, in order to decide on their frequency, the provinces may take into account registrations obtained by the entities to be inspected under the European Eco-Management and Audit Scheme (EMAS). Commission guidelines on inspections have been sent to all regional environmental protection agencies. The agencies are used by the provinces to carry out technical inspections.

In Latvia, periodic inspections are the responsibility of the State Environmental Service and its eight Regional Environmental Boards pursuant to the Environmental Protection Law, the Waste Management Law and related Cabinet regulations as well as the Pollution Law. The frequency of controls for waste management enterprises holding category A or B pollution permits is specified by Internal Regulation No 2 “Criteria to Assess the Frequency of Controls for Corporate Entities” issued by the State Environmental Service on 11 March 2011:

1) category A entities—once per annum;
2) category B entities—twice per annum; and
3) category C entities—once every 2-4 years.

Inspections are planned on the basis of the age of equipment, frequency of production accidents, seasonal nature of the entity’s business, location of the entity, regular complaints received, high level of pollution produced by the entity, change of the operator, monitoring activity revealing that the pollution limit is exceeded systematically.

In 2011, inspectors of the State Environmental Service carried out 282 municipal waste management inspections and 109 hazardous waste management inspections for entities that are outside the scope of Cabinet Regulation No 1082 of 30 November 2010 “Procedure for Declaring Polluting Activities of Category A, B and C and Issuing Category A and B Pollution Permits”. Meanwhile, the number of inspections carried out by inspectors of the State Environmental Service in 2012 was 236 for municipal waste management and 88 for hazardous waste management by companies which are not covered by Cabinet Regulation No 1082 of 30 November 2010 “Procedure for Declaring Polluting Activities of Category A, B and C and Issuing Category A and B Pollution Permits”.

In Lithuania, the supervision of activities of economic entities is planned in accordance with Article 364 of the Law of the Republic of Lithuania on Public Administration. Inspections of activities of economic entities may be routine and non-routine. Every year, having regard to their operational priorities and the conclusions of risk assessment of activities of economic entities, according to the Rules on routine and non-routine inspections of economic entities approved by an order of the Minister for the Environment of 25 June 2013, the Ministry of the Environment’s regional environmental protection departments (‘REPD’) draft and approve by a director’s order annual plans for inspections of economic entities.

Under the provisions of the Law of the Republic of Lithuania on public administration, a non-routine inspection of activities of an economic entity may be carried out: upon the receipt of a written reasoned request or instruction of any other competent entity of
public administration to conduct an inspection of activities of an economic entity, or a request of a competent institution of any other state; in the case of the availability of information or in the event of occurrence of the grounded suspicions about activities of an economic entity which may conflict with legal acts or may not meet the requirements of legal acts; when seeking to ensure the elimination of the violations of legal acts which were identified during the previous inspection of activities of an economic entity and when seeking to ensure the implementation of the adopted decisions.

The scope of routine inspections may be comprehensive and targeted. A comprehensive inspection allows the evaluation of all environmental requirements. Targeted inspections only cover a certain specific area.

By Order No AV-111 of 24 May 2013 the Director of the Environmental Protection Agency approved a description of the procedure for the environmental risk assessment of economic activity conducted by economic entities operating the installations listed in Annexes 1 and 2 to the Integrated Pollution Prevention and Control rules. The frequency of inspection of an economic entity controlled (a subject) is set in accordance with the maximum frequency specified in the form for setting the frequency of inspections. This provision does not apply to economic entities (subjects) subject to specific statutory requirements. With a view to conducting inspections more efficiently, Lithuania has made use of the Commission’s guidance on permitting and inspections and IMPEL recommendations in IMPEL project “Requirements for Waste Management in Environmental Permits” (a project undertaken by Finland).

In Luxembourg, in accordance with article 44 of the law of the March 21, 2012, the competent administration, if necessary in collaboration with other administrations, conducts appropriate periodic inspections of:

- Establishments or undertakings which carry out treatment operations on waste;
- Establishments or undertakings which provide the collection or the transport of waste;
- Brokers and traders of waste; and
- Establishments or undertakings which produce hazardous waste.

The inspections relating to the operations of collection and transport focus on the origin, nature, quantity and destination of waste collected and transported as well as the administrative procedures required when applicable on the transport of waste. In the exercise of their functions, inspecting officials have the quality of judicial police officers. Programs of inspections are established by the Administration of the Environment, and the results of inspections are made available on the Administration’s website.

In Malta, inspections are carried out at permitted waste management facilities according to a planned risk-based schedule, in accordance with IMPEL’s RMCEI guidance. General routine inspections look at the main operations of the facility in question and any important environmentally relevant parameters. Incident related inspections would focus on the problem which triggers the inspection. The Competent Authority also plan periodic comprehensive audits of facilities, which would go into depth through all
aspects of the permit including a thorough inspection of the site, as well as a detailed review of records and other documentation.

In **Poland**, multi-criteria risk analysis of registered plants is carried out before drawing up an annual inspection plan. In 2012, registered plants were divided into five categories:

1. **Inspection once a year**: plants with a high risk of a major accident (2012: 204 inspections), vehicle dismantling facilities (2012: 797 inspections) as well as other plants which the risk analysis revealed to have significant environmental effects (waste electrical and electronic equipment treatment plants, industrial pig fattening farms which require an integrated permit).

2. **Inspection once every two years**: plants with an increased risk of a major accident (2012: 112 inspections) as well as, inter alia, waste water treatment plants for over 2 000 PE (2012: 235 inspections), installations which are operated without the required permits, do not meet permit requirements, do not implement follow-up recommendations, are regarded as undertakings always likely to have significant environmental effects.

3. **Inspection once every three years**: plants that may potentially cause a major accident, (other than those falling under categories I and II), waste water treatment plants for below 2 000 PE, plants which obtained a new permit specifying the scope and conditions for using the environment.

4. **Inspection once every four years**: plants other than those falling under categories 1), 2) and 3) for which the formal and legal status for using the environment requires regulation.

5. **Plants not covered by the annual plan**, for which the frequency of inspections is not specified: plants which do not require permits for using the environment subject to ad hoc inspections, e.g. upon a request for an intervention or a request for a certificate.

Moreover, market surveillance inspections were carried out in 2012 with respect to, inter alia: 364 operators: collecting waste equipment or placing equipment on the market, waste electrical and electronic equipment recovery organisations engaged in the recycling of waste electrical and electronic equipment. Inspections of entities suspected of vehicle dismantling, inspections concerning the handling of batteries and accumulators and waste batteries and accumulators, the use of installations and equipment containing PCBs (equipment decontamination and PCB collection and disposal) were also carried out. **Poland** did not make use of the Commission’s guidance on permitting and inspections.

In **Portugal**, Article 66 of the RGGR determines the bodies responsible for supervising compliance with that law, namely the Regional Waste Authorities, Regional Coordination and Development Committees (CCDR), Inspectorate General for the Environment (IGAMAOT), municipalities and police authorities. The inspection/supervision activities may also include the participation of other bodies including through protocols, thereby promoting greater efficiency and effectiveness in combating environmental infringements and optimising available resources. The IGAMAOT follows the Recommendation of the European Parliament and of the Council of 4 April 2001
providing for minimum criteria for environmental inspections in the Member States as the instrument underpinning and supporting inspections.

The inspection system therefore varies depending on the body and in accordance with the procedures approved internally. The IGAMAOT draws up an annual inspection schedule based on the following priorities:

- Facilities that have never been inspected.
- Facilities that have specific problems and whose history requires systematic monitoring, and those which are located close to receiving environments which have suffered environmental degradation.
- Facilities whose environmental performance has been systematically unsatisfactory.

The frequency of inspections at establishments carrying out waste operations varies according to the procedures adopted by the different bodies and inspections may, for example, take place between the date the operation/processing permit is issued and the date for its renewal. Inspections may be carried out even at facilities where there is no pending case of infringement. Inspection activities at facilities cover the analysis of documentation to ensure compliance with the environmental legislation, critical analysis of environmental performance in connection with the issue of permits and any changes in the operation. With regard to the management of the waste managed and generated, the storage facility and the waste destinations are categorised and the type of waste is identified; in addition, checks are made to determine whether waste is sorted, waste materials are discharged or effluent is generated, gaseous emissions are monitored and noise levels are assessed. Photographic records are also obtained of elements that could constitute an infringement of the law.

In Romania, the National Environmental Guard is the institution subordinated to the Ministry of Environment and Climate Change that oversees activities with an impact on the environment, applies the sanctions for offences of the environmental protection law and has 823 positions. Regular controls are carried out at:

1) business operators that perform waste treatment activities;
2) business operators that perform waste collection and/or transport operations;
3) business operators that produce/own hazardous waste; and
4) waste broker/trader business operators.

Environmental controls can be firstly planned, conducted regarding the objectives included in the Logs of controlled objectives, in order to check the degree of their compliance with environmental protection law and with what is noted in the regulations they hold, but also thematic inspections checking the degree of compliance of the controlled objectives with the law on waste management, such controls being carried out according to a methodology and over a pre-set period of time, according to the inspection plan. Secondly, environmental controls can be unplanned, including:

1) inspections for checking the manner of observing the conditions imposed by the regulations;
2) inspections following the National Environmental Guard self-notification – aiming to check and stop any non-compliances found and apply civil sanctions, as the case may be;
3) inspections for the investigation of incidents or accidents that had a significant impact on the environment – inspections carried out for all types of objectives in the event of breakdown, incidents, accidental pollution or major accidents;
4) inspections ordered by the Commissioner General of the National Environmental Guard or by the Central Environmental Protection Authority – inspections carried out for checking the degree of compliance of the controlled objectives with the specific legislation, such controls being carried out according to a methodology and over a pre-set period of time; and
5) inspections for checking the achievement of the mandatory measures – inspections carried out to check, upon deadlines, the measures set at previous controls, as well as the observance of the provisions of suspension/cancellation of regulatory documents.

The Commission Guidelines on granting permits and carrying out controls have been used, and thus an inspection guide and a law have been drafted that regulate the manner of granting permits.

In Slovakia, the state inspection authority for the area of waste management which imposes penalties comprises the Slovak Environmental Inspection, regional environment authority, and district environment authority. Section 73(1) of the Waste Act defines the state inspection in waste management as a process of monitoring whether legal or natural persons who carry out trade activities follow the provisions of the law, generally binding legislation published in order to execute the law, and the obligations that follow the decisions made on the basis of this Act. The state supervises the persons who were given permits or authorisation at least once every four years.

Complexity of the inspection depends on its specific focus, e.g. inspection of keeping the deadlines for reporting or control of the entire material flow of waste from its producer to its final processor. For instance, in 2011, in the area of waste management, the Slovak Environmental Inspection carried out 782 inspections, and 784 inspections in 2012. In the period from 12/12/2010 to 31/12/2012, the Slovak Environmental Inspection had 36 persons for the whole of the Slovak Republic in the area of waste management.

Number of workers at regional environment authorities and district environment authorities who are involved in the area of waste management over the monitored area was about 147 workers who in total carried out about 1020 inspections or local enquiries. At the same time it must be said that these workers do not carry out inspection activities only, but also carry out permitting activities, perform information, strategy-related and administrative tasks, while a portion of them are also involved in activities other than waste management.

In Slovenia, the Environment and Nature Section of the Inspectorate of the Republic of Slovenia for Agriculture and the Environment ensures the systematic inspection of the conduct of collectors, transporters and treatment providers, as well as producers of
waste. To this end, the Environment and Nature Section has formulated criteria for classifying polluters into three categories with regard to the impact of their activities on the environment. The methodology has been developed over several years, with continuous monitoring of the effects and the implementation of the necessary corrective measures. The monitoring of work takes place in accordance with the premises laid down in the ‘Identification of essential processes’ document. In formulating the criteria and the methods of work themselves, due regard is paid to the premises of IMPEL’s ‘Step-by-step guidance book for planning of environmental inspection’ (September 2008). In relation to this, those subject to inspection are divided into the following three priority categories:

1) Regular annual inspections of those subject to inspection from this category are conducted at least once a year, with all notifications linked to them being dealt with as a matter of priority.
2) Regular annual inspections of those subject to inspection from this category are conducted at least once every two years.
3) Regular annual inspections of those subject to inspection from this category are conducted every three to five years.

Regular annual checks constitute the core of inspection work; these are field inspections of those subject to inspection and are not the result of a notification. The aim when organising the work is to ensure that planned work accounts for at least 60% of the activities, i.e. in the form of regular inspections and specific control activities in individual areas of work. The principle of integrated control is in place at the Environment and Nature Section, which means that regular annual inspections include the control of all areas or conduct with the aim of acquiring a clear picture of the operations of those subject to inspection from the aspect of environmental protection. As a rule, regular inspections are pre-announced and are carried out on site, since only in this way can we ensure the presence of all responsible persons and all the documents and records required for the undisturbed performance of inspection tasks. This method of work is also in line with the principle of economic viability. The practice of recent years has shown that pre-announced inspections can give rise to different forms of abuse and to a reduction in inspectors’ objectivity; in light of this, it is necessary for a certain percentage of regular inspections to be unannounced. The Environment and Nature Section has up to now consistently adhered to the Commission’s guidelines on inspections.

In Spain the control and inspection scheme is regulated in Chapter I (Responsibility, supervision, inspection and control) of Title VII of Law 22/2011 of 28 July. Article 43 lays down the competences and means of supervision, inspection and control, while Article 44 regulates inspection.

The competence for inspections in relation to production and management of waste lies with the autonomous communities. The autonomous communities have followed the Commission’s instructions and recommendations [the Commission’s guidance on permitting and inspections]. Examples of inspection regimes include:
• Murcia - An environmental inspection plan for industrial activity is established annually, which plans the inspections by sector that are going to be carried out during the year, as well as the facilities that are affected by this plan. The latest plan in force was passed by the Order of 22 April 2013 by the regional Ministry of Presidency approving the Environmental Inspection Plan for the year 2013 (Official Gazette of Murcia No 127 of 4 June 2013). There is a service dedicated to environmental inspection and control within Murcia’s Directorate General of Environment. This service includes three environmental inspectors who are partially dedicated to inspections related to the Waste Framework Directive.

• Andalusia - There are annual inspection plans, carried out by the Ministry of Agriculture, Fishing and the Environment. These plans include inspections for waste producers, managers and extended responsibility schemes. They include document inspection and a visit to the facilities. There is an Inspection Service in Central Services, with inspection departments in the eight provincial Territorial Delegations and collaboration from environmental agents. There are also inspection support structures (public business agency and environmental quality partner establishments).

In Sweden the regulations regarding supervision can be found in chapter 26 of the Environmental Code and in the Ordinance on environmental inspection (2011:13). This ordinance is supplemented by the Ordinance on self-monitoring (1998:901). The operator of the activity shall continually plan and control the operation to prevent damage and nuisance. Furthermore, for environmentally hazardous activities that are subject to a permit obligation, an environmental report must be submitted annually to the supervisory authority.

Refer to document “Licensing, inspection and enforcement system in Sweden for environmentally hazardous activities”

The Swedish environmental law institutions consist of a number of permitting authorities, inspection authorities and guidance authorities. New activities are assessed either by municipalities, county administrative boards (CABs), environmental assessment delegations or land and environmental courts, depending on the degree of environmental impact of the activity. A number of inspection authorities, primarily CABs and municipalities, supervise to see whether legislation, licenses and conditions are being observed. The guidance authorities are primarily the Swedish EPA, the Agency for Marine and Water Management (HaV), the Chemicals Agency and the Geological Survey of Sweden. There are 256 municipal environmental and health protection boards and 21 CABs.

Decisions on permits and conditions can be appealed by individuals who are affected, by environmental organisations and by the guidance authorities. Inspection of certain activities that are subject to license may be transferred from a state authority, as a rule the CABs, to the municipalities. Currently approximately 60% of the supervision has been transferred to the municipalities. Implementation of the Industrial Emissions Directive (2010/75/EU) has brought amendments to the Environmental Supervision Ordinance
implying requirements for regular environmental inspection visits to installations that are covered by the Industrial Emissions Directive. If an inspection visit brings to light a serious instance of non-compliance with the permit conditions, a new inspection must be carried out within six months. The modified ordinance has not yet been finally decided but is intended to enter into force on 18 June 2013. The Environmental Code emphasises the supervision responsibility of the authorities. Supervision must be aimed at ensuring compliance with the Environmental Code, together with regulations, judgments and decisions that have been issued under the Code. Supervision authorities shall monitor compliance with the Environmental Code and regulations, judgments and decision and intervene to ensure rectification.

In the United Kingdom Part 4 of the Environmental Permitting (England and Wales) Regulations 2010 describes the powers and duties of the regulator (and the operator) in ensuring compliance with the regulations and permit conditions. These Regulations place a duty on regulators to undertake appropriate periodic inspections of regulated facilities (regulation 34(2)). There is also a duty to carry out periodic inspections of exempt waste operations (Schedule 2, paragraph 15). The Environment Agency operates the OPRA system (Environmental Permitting Regulations Operational Risk Appraisal) to allow it to assess the relative environmental risk of permitted site-based activities; this is a tool to target its regulatory effort into the higher-risk activities and poor performers, resulting in more site inspections to ensure less environmental risk. All activities are set into one of three tiers; Tier 1 for simple activities with a very small or no risk of impact on the environment. Tier 2 and 3 are for permitted activities and are judged by a compliance rating which allows the Environment Agency to ascertain the number of visits and cost of permit required.

The compliance rating is based on the replies to the following 5 attributes – Complexity of activity, Emissions and inputs (the amounts allowed to be put into and released from an activity), Location (the state of the environment around the site), Operator performance (the management systems and procedures used to comply with the rules of the environmental permit. Operators who input an externally accredited management scheme are likely to be rewarded) and Compliance rating (how well the operator complies with the conditions of the permit). The regulator works out the compliance rating using the total Compliance Classification Scheme points for each calendar year, January to December. The compliance rating allows the Regulator to plan the amount of resources it will make available, report on how the site is performing and reflect performance in the charges required for the forthcoming year. The compliance rating adjusts the yearly subsistence charge for most tier-2 and -3 permits.

The requirement to carry out appropriate periodic inspection of exempt waste operations is provided at paragraph 15 of Schedule 2 to Regulation 4 of the 2010 Regulation. Regulation 34 of the Environmental Permitting Regulations 2010 states that:

“The regulator must periodically review environmental permits... and... must make appropriate periodic inspections of regulated facilities.”

Regulation 42 of The Waste (England and Wales) Regulations 2011 states that:
'No person may act as a broker of or dealer in controlled waste unless registered with the Competent Authority.'

In Northern Ireland, the Northern Ireland Environment Agency (NIEA) carries out regular unannounced monitoring inspections of all licensed and permitted sites. The frequency of inspections is determined using a risk-based approach which considers the type and scale of the activity as well as the operator’s compliance history. Visits are also conducted to companies to advise them of their obligations and how to work towards compliance with the legislation. Relevant businesses are required to provide information to NIEA to enable the producer responsibility team to determine whether they have any obligations under the legislation. The team adopts a risk based approach to balance the number of visits and checks on producers, (to ensure their data are accurate) and investigations of unregistered businesses (to ensure they register if obligated).

In Scotland, the Waste Management Licensing (Scotland) Regulations 2011 (WMLR) Schedule 4 paragraph 13 transposes the requirements of Article 34. The Scottish Environmental Protection Agency (SEPA) utilises a compliance Assessment Scheme, designed to demonstrate the level of compliance associated with specific licence conditions. It uses a risk based system to identify which sites get a site based inspection in any given year. The highest risk sites and poorly performing sites will receive multiple site based inspections per year and the lowest risk sites will receive a site based inspection every 5 years. The results of SEPA sampling, site data returns and desk based inspections are also used to calculate the annual compliance result. Should a site have an environmental incident, this is also fed into the scheme along with any subsequent follow up inspections.

Section 192 D of the Public Health Act make provisions in Gibraltar for the inspections referred to in Article 34 of Directive 2008/98/EC. Inspections are carried out by the competent authority on a risk and compliance history basis.

**Conclusion:**

All 25 Members States submitting replies to the Implementation Questionnaire 2010–2012 reported that they have established a regulated inspection system of waste management operations.

**3.17 Enforcement and Penalties**

**Question 18:** Please provide examples for the Member State's system of effective, proportionate and dissuasive penalties applicable to infringements of the provisions of Directive 2008/98/EC.

**Article 36 (2),** which is the relevant article for this question, requires that Member States establish provisions for the enforcement of effective, proportionate and dissuasive, penalties applicable to infringements of the provisions of the Directive. **Question 18** asks Member States to provide examples demonstrating that provisions for the issuing of penalties such as these have been put in place.
22 Member States submitted specific examples of penalties in their replies which may be levelled for infringements of the provisions of the Directive. The detailed replies are outlined below.

The Czech Republic and Greece both reported that a penalty system was in place, but did not provide any specific examples to this effect. Romania submitted a figure for the total amount which has been charged in financial penalties under its 2011 Law on Waste, which transposed the Directive, but gave no specific penalties which have been levelled.

Member States replies are summarised below:

The Austrian AWG 2002, BGBL I No. 101/2002 as amended contains in Article 79 a catalogue of more than 60 examples of administrative offences with variation across levels to ensure compliance through effective, proportionate and dissuasive criminal sanctions. Examples of criminal offenses under which breaches of the Directive 2008/98/EC can be punished are:

- Art. 79 (1) Z 9 AWG 2002: building, operating, or changing a treatment plant without being in possession of the necessary authorisation, for which fine from EUR 850 up to EUR 41,200 can be levelled; however, anyone who is active professionally in the area of waste management and commits such an act is threatened with a minimum penalty of EUR 4,200.
- Art. 79 (2) Z 4 AWG 2002: managing hazardous waste contrary to Article 15, para. 5 AWG 2002, for which a fine of EUR 450 up to EUR 8,400 can be levelled; however, anyone who is active professionally in the area of waste management is threatened with a minimum penalty of EUR 2,100.

In Bulgaria, Chapter Six of the ZUO lays down the coercive administrative measures and the administrative penalties. Provisions are made for fines and sanctions for violations of the waste management legislation by natural and legal persons and officials. For example, for the purpose of deterring theft from households, and the electricity and telecommunication networks, financial penalties ranging from BGN 30,000 to 100,000 are introduced for unauthorised operations involving ferrous and non-ferrous metal waste.

In Croatia, Chapter 11 of the Sustainable Waste Management Act (Articles 167–173) stipulates fines for violations in the application of the Act and the regulations adopted pursuant to the Act. The chapter lists numerous violations. The amount of the fine is determined in accordance with the type of violation. The penalties are effective, proportionate and appropriate. For example, under Article 170(1)(14), a fine of HRK 150,000.00 to HRK 400,000.00 for misdemeanour is imposed on a legal person who has begun to carry out or who carries out waste management operations without a permit or contrary to a permit (Article 84(1) and Article 86).

In Cyprus, according to article 49 of the Law, sanctions and imprisonment, are set for infringements of the Law regarding the obligations of the owner of the waste, the persons dealing with the management of waste (breaches of permit conditions and obligation to have a permit), the mixing, storage and labelling of hazardous waste, record keeping and other offences regarding the Law and the Regulations, Decrees
under the Law. The max amount of sanctions is €50,000 and/or three years of prison. The application of the article is done through court decision after relevant prosecution, According to article 50 of the Law, extrajudicial fines can be issued from the inspectors at the time of inspection regarding the obligations of the owner of waste and the permit owners. The fine can be up to €4,000. According to 51 article of the Law, administrative penalties can be issued from the competent authority for any person causing pollution or environment degradation at a max fine of €500,000. In the case of very serious environment damage the Ministers Council can issue a fine up to €4,000,000. Under this article the competent authority can demand the closing of the facility and the Ministers Council can issue an everyday penalty of €40,000.

In the Czech Republic, penalties for breach of obligation relating to the requirements of the Waste Directive are defined in part ten of the Waste Act. These penalties cover all the transposed provisions, while there is a system of corresponding fines that always have a high stipulated upper limit to ensure that the sanction body can always raise them as required depending on the seriousness of the threat to the environment.

Denmark has established the following penalty provisions for breaches of the provisions of the Waste Directive: Article 110 of the Environmental Protection Act; Article 94 of the Waste Order; Article 51 of the Approval Order, and penalty provisions in all the legal documents that transpose the Directive; and Article 196 of the Penal Code. The general rule is that breaches of special laws are punished with a fine, which can rise to imprisonment for up to two years if the breach was committed intentionally or as a result of gross negligence and if, as a result of the breach:

1) harm was caused to the environment or a risk of such harm was brought about; or
2) a financial gain was made or intended by the party concerned or others, including through savings.

In addition, penalties may be imposed through other legislation, and Article 196 of the Penal Code enables sentences of up to six years’ imprisonment to be imposed on anyone who, under aggravating circumstances and in breach of the environmental legislation:

1) pollutes air, water, soil or subsoil causing substantial harm to the environment or an obvious risk thereof; or
2) stores or disposes of waste or similar substances in such a way as to cause substantial harm to the environment or an obvious risk thereof. Anyone who in breach of environmental legislation pollutes air, soil or subsoil or stores or disposes of waste or similar substances in a more systematic or organised manner may also be punished in the same way.

In Estonia, According to Section 119(8) of the Waste Act, a person exercising supervision has the right to issue precepts to ensure compliance with the Act. A failure to comply with a precept may incur a penalty payment pursuant to the procedure provided for in the Substitutive Enforcement and Penalty Payment Act. The upper limit for a penalty payment is EUR 32,000. Chapter 12 of the Act lays down the categories of punishment for committing misdemeanours related to waste. A natural person is punishable by a fine
of up to EUR 1 200, depending on the severity of the violation. Legal persons are punishable by a fine of up to EUR 32 000.

For example, the violation of the requirements for the prevention of waste generation or for waste management or deposit of waste outside of waste management facilities is punishable by a fine of up to EUR 1 200 for natural persons and EUR 3 200 for legal persons. Acceptance of untreated waste, including mixed municipal waste which has not been sorted in compliance with the requirements of the Waste Act in a landfill and deposit of such waste, is punishable by a fine of up to EUR 1 200 for natural persons and EUR 32 000 for legal persons.

In **Finland**, any person who intentionally or through gross negligence introduces, emits or disposes into the environment an object, a substance, radiation or something similar in violation of the law, a provision based on law, a general or a specific order, or without a permit required by law or in violation of permit conditions, so that the act is conducive to causing contamination of the environment, other corresponding environmental despoliation or littering or a health hazard, shall be sentenced for impairment of the environment to a fine or to imprisonment for at most two years. This penalty also applies to violations of the ban on mixing hazardous waste, the ban on incineration of waste in water bodies, and a range of other waste management operations. In especially serious circumstances the offender shall be sentenced for aggravated impairment of the environment to imprisonment for at least four months and at most six years.

The one who litter, leave waste at places where it not should be, cause danger to people’s health or nature etc. will be fined or convicted to go to prison for maximum two years according to Section 37 Act of Waste of the Åland Islands.

In **Germany**, the Penal Code (StGB) provides, in sections 324 et seq., penalties for offenses against the environment such as the unauthorised handling of waste, in accordance with section 326 German criminal code. Actions which have a lower degree of illegality are punishable as offenses under § 69 KrWG. Actions breaching § 49 KrWG (such as breaches of register management) can draw fines of up to EUR 10,000.

In **Greece**, in case of infringement of the provisions of the Directive 2008/98/EK either due to the actions or to the lack of actions by the waste producer / holder, criminal, administrative and civil penalties are imposed, according to the Law 1650/1986 (160 A) as amended by Law 3010/2003 (91 A’), Law 4014/2011 (209 A) and Law 4042/2012 (24 A). Moreover, the abovementioned penalties are imposed to the municipalities or the waste management bodies responsible for the municipal waste management in each managing territory of the country when municipal waste is illegally disposed of in dumps. Regarding alternative management, there the additional penalties mentioned in the article 20 of the Law 2939/2001 (OJG 179 A), as amended.

In **Hungary**, the official measure of the inspectorate is obligating via official resolution. The sanctions associated with such obliging include: the restriction or prohibition of the activity; the withdrawal of the waste management permit; the waste management fine; the procedural fine. The Waste Act, which has been prepared during the reporting period, supplements the official instruments of the authority on the basis of practical
experiences. In addition to obligating, the authority may resort to sequestration, and may apply confiscation as a sanction.

An example of a waste management fines is a case where the inspectorate-general obliged K.I. to pay a fine of HUF 35,640. The inspectorate conducted an on-site inspection at K.I.’s residential estate upon a notification from the local municipality. The inspection concluded that K.I. pursues unauthorised collection of metal wastes (0.2 metric tonnes of wrecked vehicles not containing hazardous materials (EWC 160106) and 0.35 metric tonnes of metal wastes (EWC 200140)). The inspectorate prohibited the unauthorised activity and required the obligant to certify the handing over of the wastes. However, the obligant did not satisfy the above despite several calls and therefore a fine was imposed by the inspectorate.

In addition to the organisational system of the environmental authorities, criminal courts and – in the case of acts with lower severity – infringement authorities may also impose sanctions. In cases of criminal acts infringing the order of waste management according to Article 248 of Act C of 2012 on the Criminal Code, a decision is made by criminal courts.

In Ireland, Section 10 (1) of the Waste Management Act provides that a person guilty of an offence under this Act shall be liable:

“(a) on summary conviction, to a fine not exceeding €3,000 or to imprisonment for a term not exceeding 12 months, or to both such fine and such imprisonment, or

(b) on conviction on indictment, to a fine not exceeding €15,000,000 or to imprisonment for a term not exceeding 10 years, or to both such fine and such imprisonment.”

Section 16 (4) further provides that in imposing any penalty under subsection (1), the court shall, in particular, have regard to the risk or extent of environmental pollution and any remediation required arising from the act or omission constituting the offence.

A person guilty of an offence under section 16 (5), 32 (6) (where the offence consists of a contravention of regulations under subsection (4) of that section), 33 (8), 38 (7) or 40 (13) shall be liable on summary conviction to a fine not exceeding €3,000 or to imprisonment for a term not exceeding 12 months, or to both such fine and such imprisonment. A person guilty of an offence under Regulations is liable (a) on summary conviction, to a fine not exceeding €3,000, or imprisonment for a term not exceeding 3 months, or both, or (b) on conviction on indictment, to a fine not exceeding €500,000, or imprisonment for a term not exceeding 3 years, or both.

In line with government policy there is also an increase in the use of higher courts (Circuit and Higher Courts) where offenders can be prosecuted on indictment. The Focus of Environmental Enforcement in Ireland Report for the years 2006-2008 notes that, for example, the High Court has been used on a number of occasions to secure environmental outcomes. In addition, notwithstanding the independence of the national courts’ system under the Irish constitution, the Irish authorities have engaged in a series
of correspondence with the Judicial Studies Institute in order to represent the challenges associated with environmental crime, thus highlighting the situation to the national body charged with providing information and support to judges. This approach is being made with a view to ensure more effective use of the Courts.

In **Italy**, persons involved in the collection, transport, recovery, disposal, sale and brokerage of waste without a permit, registration or notification are liable for the following penalties:

1) Imprisonment of three months to one year or a fine of EUR 2 600 to EUR 26 000 in the case of non-hazardous waste; or
2) Imprisonment of six months to two years and a fine of EUR 2 600 to EUR 26 000 in the case of hazardous waste.

These penalties also apply to owners of companies and those responsible for legal entities that abandon or dump waste or release waste into surface water or groundwater.

In addition, persons operating an unauthorised landfill are liable to imprisonment of six months to two years and a fine of EUR 2 600 to EUR 26 000. Imprisonment of one year to three years and a fine of EUR 5 200 to EUR 52 000 applies if the landfill is used, wholly or in part, for the disposal of hazardous waste. Penalties are also imposed for non-compliance with the prescriptions contained or referred to in the permits, and in the absence of the requirements and conditions necessary for registration or notification, for unauthorised mixing of waste and illegal temporary storage and other infringements of waste legislation.

In **Latvia**, penalties for infringements of waste management regulations are provided by several laws. Section 75 of the Latvian Code of Administrative Offences specifies the penalties applicable to infringements of waste management regulations. In the case of infringements of waste management regulations or transboundary waste shipment regulations, a monetary penalty ranging from fifty to seven hundred lati is imposed on natural persons, with or without confiscation of vehicles used in committing of the infringement, while legal persons are subject to a monetary penalty ranging from two hundred to one thousand five hundred lati, with or without confiscation of vehicles used in committing of the infringement. Meanwhile, in the case of failure of a municipal waste producer or holder to participate in a waste collection activity organised by the municipality, penalties are within the range from fifty to five hundred lati for natural persons and from three hundred to one thousand lati for legal persons.

In accordance with Section 99 of the Criminal Law, any infringement of regulations governing hazardous waste collection, storage, transfer, transportation, recycling, recovery or disposal leads to deprivation of liberty for a term not exceeding four years or short-term deprivation of liberty, or community service, or a monetary penalty if such infringement has caused substantial harm to the environment, human health, or property or economic interests. Meanwhile, the importation of hazardous waste into the territory of Latvia or the transit traffic of such waste through the territory of Latvia in violation of regulations gives rise to deprivation of liberty for a term up to five years or
short-term deprivation of liberty, or community service, or a monetary penalty if such infringement has caused substantial harm to the environment, human health, or property or economic interests. Where these criminal offences are committed by an organised group, the applicable punishment is deprivation of liberty for a term up to seven years, with probationary supervision for a term not exceeding three years.

In Lithuania according to the Law of the Republic of Lithuania on the state control of environmental protection (Official Gazette, 2002, No 72-3017), with a view to ensuring the legitimacy and order in the area of environmental protection and use of natural resources, institutions and officials responsible for the state control of environmental protection organise and conduct prevention activities aiming at ensuring that natural and legal persons would observe the requirements of laws and other legislation regulating environmental protection and use of natural resources, control whether natural and legal persons fulfil their duty to protect the environment on the grounds provided for in the Law, issue binding instructions to natural and legal persons, impose legal sanctions provided for in this Law and other laws to persons infringing on the legislation regulating environmental protection and use of natural resources by imposing administrative penalties (in certain statutory cases referring the case to law-enforcement authorities to decide on the criminal liability of guilty persons) and economic fines in accordance with the established procedure, put an end to activities harmful to the environment, withdraw permits for the use of natural resources or integrated pollution prevention and control permits, impose other statutory measures, assess the harm to the environment caused by infringements of environmental laws or other legislation, etc.

In Luxembourg, the act of March 21, 2012 provides for the following sanctions:

1) Criminal Sanction: Article 47 point (1) provides for a detailed list of offenses for which a sentence of imprisonment of eight days to six months and/or a fine of 251 to 100,000 euros may be pronounced.

2) Warnings taxes: Article 48 provides that contraventions in accordance with a detailed list fixed in article 47 point (2) can be punished by warnings taxes. The minimum amount of the tax warning is 25 euros while the maximum amount is 250 euros.

3) Administrative Measures: in the event of non-compliance with the provisions of article 12, 13, 18, 19, 23, 24, 26, 27, 30, 32 to 35, 42 and 54, paragraph (2) of the act the minister may:
   a. specify the operator of an establishment or a producer or owner, importer or distributor a deadline by which it must comply with these provisions, which period may not exceed two years;
   b. and, in case of non-respect of the compliance period, to suspend, after formal notice, in whole or in part, the merchant business, dealer, collector or waste carrier, the operation of the facility or site work by interim measure to close the facility or the site in whole or in part.

In Malta, the penalties applicable to infringements of the provisions of the Directive are transposed through the Waste Regulations 2011 (LN184/11; as amended). The
Competent Authority is to take all necessary measures to prohibit the abandonment, dumping or uncontrolled management of waste. According to Article 35 of the regulations, penalties on those committing an offence are:

“(a) on a first conviction, to a fine (multa) of not less than one thousand and one hundred and sixty-five euro (€1,165.00), but not exceeding two thousand and three hundred and thirty euro (€2,330.00);
(b) on a second conviction or subsequent convictions, to a fine (multa) of not less than two thousand and three hundred and thirty euro (€2,330.00), but not exceeding four thousand and six hundred and sixty euro (€4,660.00), or to imprisonment for a term not exceeding two years, or to both such fine and imprisonment:

Provided that whenever any person is found guilty of committing an offence under these regulations by means of a vehicle, the owner of the said vehicle, where applicable, is held liable in the same manner and degree:

Provided further that the court may order any person who has been found guilty of committing an offence against these regulations to pay for the expenses incurred by the competent authority mentioned in these regulations as a result of the said offence, the revocation of the permit issued by the competent authority and the confiscation of the corpus delicti, including the vehicle, if applicable.”

In practical terms, the Malta Environment and Planning Authority issued approximately 25 administrative penalties from 2011–2012. The reasons for the issue of these penalties were based on illegal waste management activities (e.g. illegal storage, transfer and processing of waste) and breaches of environmental permit conditions.

In Poland penalties in the form of fines and imprisonment are levelled for a number of offences, including:

1) Sending for recovery or disposal unsorted municipal waste, municipal waste sorting residues or municipal sewage sludge in breach of the Act on Waste;
2) Disposing of infectious medical or veterinary waste outside the provinces where it has been generated;
3) Incinerating waste outside waste incinerators or co-incinerators;
4) Mixing waste oils with other hazardous waste during the collection or storage if the level of pollutants in waste oils exceeded the permissible level; and
5) Failing to fulfil one’s duties as a landfill operator.

In the reporting period, financial penalties were levelled against waste holders or entities transporting waste who:

1) disposed of waste in breach of waste management legislation;
2) handed this waste over to entities which did not obtain necessary permits unless permits were not required; and
3) engaged in waste collection, transport, recovery or disposal without obtaining a required permit or in breach of its requirements; or collected waste in spite of a waste collection ban.
An entity which, in breach of rules, stores, removes, treats, subjects to recovery, disposes of or transports waste or substances under conditions or in a way that may threaten human life or health or cause a significant deterioration in water, air or land quality or substantial damage to plants and animals and an entity which, in breach of rules, ships waste to Poland or abroad is subject to imprisonment for a term of three months to five years. An entity which ships hazardous waste to Poland or abroad without a required notification or permit or in breach of the permit requirements is subject to imprisonment for a term of six months to eight years.

In Portugal, following inspection an Inspection Report is drafted and, in the case of infringements, an official report is drawn up, following which penalty proceedings for an environmental offence are initiated under administrative law. The scheme of penalties under the RGGR provides for fines depending on whether the administrative offences of an environmental nature are very serious, serious or minor. In addition to varying according to seriousness, the amount of the fines also varies according to whether the infringements are committed through negligence or wilful misconduct and by natural or legal persons. Where the seriousness of the infringement so warrants, additional penalties and the provisional seizure of goods may be imposed (Article 68 of the RGGR). Where a situation of serious danger to health or to the safety of persons and property is detected, the authorities may decide to suspend the operation, in whole or in part, or seize equipment by sealing (preventive penalties/additional penalties).

In cases of unlicensed activities or the abandonment of waste, where the producer or holder of waste is identified an official report is drawn up, followed by an administrative offence procedure. In cases of abandonment, dumping or uncontrolled management of waste, the penalty framework was strengthened. Notices have also been drawn up as deterrent measures, either to provide information on the need for permits for the activity or to notify the person responsible for the waste to remove and transport it to duly authorised bodies, providing evidence of proper transportation and restoring the site to its previous condition.

In Romania, for violations of the provisions of Law no 211/2011 on waste, which transposed Directive 2008/98/EC in 2012, sanctions in the amount of 215,000 lei were applied during the reporting period. No further information was submitted.

In Slovakia, Section 78 of the Waste Act regulates administrative infractions, i.e. stipulates penalties that may be imposed on legal or natural persons who carry out trade activities for not keeping the obligations set therein. The obligations are divided into four separate paragraphs and, depending on which of the paragraphs includes the infringed obligations, the penalty may consequently be increased up to 6,638.78 Euro, up to 16,596.95 Euro, up to 165,969.59 Euro, or anywhere from 7,000 to 16,000 Euro.

Section 80 of the Waste Act lays down infringements for obligations stipulated therein, for which a penalty may be imposed on a natural person, depending on the type of infringement, up to 165.96 Euro or up to 663.87 Euro. The Waste Act makes it possible for the waste management public administration authorities to decide on the imposition of penalties on the obliged person and the same time decide on a corrective measure to be adopted, i.e. to require that measures are taken within a prescribed period to
ameliorate the consequences of a particular infringement that resulted in the penalty’s imposition.

The Waste Act authorizes the waste management public administration authorities to change published decisions either on their own initiative or on a petition by a party to the proceeding (if necessary due to requirements for the protection of the environment, life or human health, or other important public interests, if there is a change in the facts critical for the decisions issuing, if there is an infringement to the conditions stipulated in the decision), or derogate it (if necessary due to requirements for the protection of the environment, live or human health, or other important public interests, and if there is a risk of major ecological damage or other major damage, if the used technological installation is not able to comply with the conditions for protection of the environment laid down in generally binding legal regulations or binding technical standard, if the entitled person, in the absence of any relevant reason, makes no use of the given permit for the period exceeding one year, if the obliged person fails to comply with the imposed corrective measure and doing so poses an immediate threat to the lives or health of humans or animals, or if there exists a risk of major ecological damage or other major damage, if the landfill operator who was imposed a penalty fails to pay the whole sum of means contained in a designated financial reserve within an alternative deadline defined in the provision for corrective measures, or repeatedly fails to pay the annual sum of means contained in a designated financial reserve within the prescribed deadline, if the owner of a waste collection facility who was given a permit has been imposed a penalty on two occasions or fails to comply with the corrective measure; the one whose permit was cancelled may repeatedly ask that a permit for the operation of an installation for collection of metal waste be issued to him not sooner than after three years following the date of the previous permit’s abrogation).

In Slovenia, Articles 57 to 67 of the Decree on Waste set out the offences relating to waste management. In these Articles, the offences are divided according to gravity of the offence and the offender’s activity. Individual Articles therefore set out more and less serious offences applying to waste holders, waste producers, waste collectors and waste treatment providers, along with offences applying to transporters, traders and agents.

In Spain, during the reporting period enforcements and penalties have included:

- 2012/069D Engaging in the activity of transporter without a permit. Serious. Article 46(3)(a) €90;
- 2012/086D Incorrect hazardous waste labelling by a waste manager. Serious. Article 22(2) €2,000;
- 2011/261D Uncontrolled dumping of construction and demolition waste. Serious. Articles 20, 46(3)(l) and 37 €1,000; and
- 2012/004D Engaging in the activity of hazardous waste management without a permit and lack of hazardous waste labelling. Serious. Articles 46(3) and 46(3)(j) €18,000.
In **Sweden** the system of penalties in the Environmental Code is enforced in such a way that the most serious offences are covered by penalties while the less serious instead are captured by other sanctions and means of compliance.

According to chapter 24 section 3 of the Environmental Code a permitting authority may wholly or partly rescind a permit, exemption or approval that has been notified under the Environmental Code, or under separate regulations pursuant to the Code and prohibit continued activity if certain criteria in the section are met. A permitting authority may also reconsider the permit in certain reported situations under chapter 24 section 5 the Environmental Code. From chapter 26 section 9, it emerges that a supervisory authority may notify the injunctions and bans needed to ensure that the Code, regulations, judgments and other decisions that have been notified based on the Code are complied with. An injunction or ban may be combined with a fine in accordance with chapter 26 section 14. Penalty provisions and forfeitures are reported in chapter 29 of the Environmental Code.

Under chapter 30 section 1 of the Environmental Code, a special fee (environmental sanction charge) must be paid by anyone who:

- "commences an activity that requires a permit or is subject to a duty to give notice without such permit or notice;"
- "disregards conditions or other decisions in a license that have been notified on the basis of the Code or of regulations that have been notified on the basis of the Code; or"
- "disregards other provisions in this Code, regulations that have been notified pursuant to the Code, or provisions in EU regulations within the field of application of the Code. Under chapter 30 section 2 of the Environmental Code, an environmental sanction charge must be levied even if the offence has not occurred deliberately or through negligence."

The inspection authorities shall report all infringements of the Environmental Code and separate regulations pursuant to the Code to the police or the prosecutor if there is a suspected crime according to chapter 26 section 2 the Environmental Code.

In the **United Kingdom** the Waste (England and Wales) Regulations 2011 state that no person may act as a broker of or dealer in controlled waste unless registered with the Competent Authority. The Regulations also state that a person is guilty of an offence if they fail to comply with the requirement to register, or if they fail to comply with a compliance notice, stop notice or restoration notice. Such an offender is liable on summary conviction to a fine not exceeding level 5 on the standard scale. The Regulations also make it an offence not to take all reasonable measures to apply the waste hierarchy ensure separate collection of the stipulated waste streams or prevent mixing of separately collected waste. Persons breaching these regulations are similarly liable to:

1) on summary conviction, to a fine not exceeding the statutory maximum (£5,000); and
To ensure Article 36 (2) of the WFD is transposed into UK law, section 34 of the Environmental Protection Act states that:

“\textit{It shall be the duty of any person who imports, produces, carries, keeps, treats or disposes of controlled waste or, as a broker, has control of such waste, to take all such measures applicable to him in that capacity as are reasonable... to prevent the escape of the waste from his control or that of any other person; and on the transfer of the waste, to secure that the transfer is only to an authorised person or to a person for authorised transport purposes”}.

Any person who fails to comply with this duty of care will be liable to:

(a) on summary conviction, to a fine not exceeding the statutory maximum (£5,000); and

(b) on conviction on indictment, to a (unlimited) fine”.

Section 41 of the Clean Neighbourhoods and Environment Act 2005 states:

a person who commits an offence under Section 33 of the Environmental Protection Act is liable to:

(a) on summary conviction, to imprisonment for a term not exceeding 12 months or a fine not exceeding £50,000 or both; or

(b) on conviction on indictment, to imprisonment for a term not exceeding five years or a fine or both.

Regulation 69 of the Hazardous Waste (England and Wales) Regulations 2005 states:

a person who commits an offence under regulation 65... shall be liable on summary conviction, to a fine not exceeding level 5 (£5,000) on the standard scale. A person who commits an offence under regulation 65 or 68 in connection with any other requirement under these Regulations shall be liable to

(a) on summary conviction, to a fine not exceeding the statutory maximum (£5,000); or

(b) on conviction on indictment, to a fine or to imprisonment for a term not exceeding two years, or to both”.

\textbf{Conclusion:}

\textit{All 25 Member States which responded to the question reported that they have a system of penalties in place to enforce against infringements of the Waste Framework Directive in 2010-2012. However, the Czech Republic, Greece and Romania did not provide actual examples as requested by Question 18.}
3.18 Data and Targets

Question 19: In line with Decision 2011/753/EU, Member States shall verify compliance with the targets set in Article 11(2) of Directive 2008/98/EC by calculating the weight of the waste streams which are generated and the waste streams which are prepared for re-use, recycled or have undergone other material recovery in one calendar year. Member States shall provide data on the state of preparation for re-use, recycling and material recovery of the respective waste streams for either each year of the three-year reporting period or for the years of the reporting periods laid down in Annex I, Section 5, to Regulation (EC) No 2150/2002 of the European Parliament and of the Council.

Member State replies to point 19 have already been covered in Section 3.5.2 Re-use and Recycling, as Question 6 (ii) asks whether Member States have completed the table on re-use and recycling and recovery rates. Therefore, for a discussion of these replies please see Section 3.5.2.

Member State preparation for re-use and recycling rates for household waste and recovery rates for C&D waste are presented in Appendix A.2.0.
4.0 General Conclusion on the Implementation of the Directive

4.1 Identified Limitations of Reporting

Despite that fact that Article 37 of the Directive itself requires that Member States report to the Commission on the implementation of the Directive on a three yearly basis via an Implementation Questionnaire format, not all Member States treat this obligation with the same level of due attention. Replies vary from the detailed and open to those which only make reference to national legislation. The majority of Member States tended to report whether measures had been transposed into national law but did not comment on if actions had proved affective or led to improvements in practice. Furthermore replies were inconsistent in terms of qualifying different aspects of implementation resulting in an inability to compare performance across Member States. In some cases data was missing for certain Member States, and in other cases it was difficult to ascertain what the correct answer was. A common instance of incomplete reporting across Member States was the provision of rates for re-use and recycling of household waste and for recovery of C&D waste for 2010-2012, pursuant to point 19. Many Member States did not submit figures for all years of the 2010–2012 period, with the last year posing the greatest difficulty. These limitations made comparisons between Member States even more challenging.

The most serious issue in this regard was that Belgium, France and the Netherlands did not submit replies to the Implementation Questionnaire to the Commission for 2010–2012 when they had done so for 2007-2009.

A further limitation is that in certain instances questions have multiple parts, yet Member States’ replies ignore whole aspects of the question. For example, very few countries mentioned labelling of hazardous waste (Question 11 (ii)), which could be interpreted to indicate that hazardous waste is travelling around the EU unlabelled, but it’s more probable that Member States have just largely ignored this aspect of the question. Furthermore, many questions ask whether Member States have made reference to Commission guidance in forming measures or writing up plans, and very few countries respond to this extra aspect of the question.

In many instances Member State replies simply referenced national legislation or copied and pasted relevant text, without providing any further information on implementation. Given these pieces of legislation were often quite complex, it was not always possible to determine whether the obligations of the Directive are being met as reported in the replies. Similarly Member States might refer to their replies to previous Implementation Questionnaires (2004-2006 and 2007-2009) without repeating the concrete information requested.

Furthermore, some instances of contradictions between the Implementation Questionnaire replies or between these replies and other data sources that were
considered were identified, which called into question the veracity of the submissions. One of the main alternative data sources used were a set of 2013 reports for the European Environment Agency assessing municipal waste management in Member States. The report on Poland\textsuperscript{99} for example, contradicted the country in its claims over its collection system.

There were also Member States with regional differences such as the United Kingdom, where the four constituent nations of England, Wales, Scotland and Northern Ireland (plus the British overseas territory of Gibraltar) which have different approaches for the implementation of the Directive. In these cases regional summaries have been given based on the information submitted, although it was not always possible to deal with individual regions in the same level of detail as individual Member States.

4.2 Suggestions for Improving Member State Reporting

With the aim being to improve the quality of the Member State reporting, the European Commission might consider how best to refine the questions in the Implementation Questionnaire to ensure more comparable replies across the Member States. An example is \textit{Question 7 (i)} which considers the establishment of separate collection for specific waste streams, and for which some Member States submitted very lengthy replies detailing numerous measures for all relevant waste streams while others submitted higher level summaries of the approach taken. In instances such as this, introducing a word limit could ensure that all Member States provide comparable levels of detail in their replies.

The main limitation of this reporting is that this review does not assess whether the Member States have implemented whatever is discussed in their replies to the Implementation Questionnaire or the extent to which this indicates compliance with the obligations of the Directive. In order for such due diligence to take place, Member States must be required to submit a series of evidence along with their replies to the Implementation Questionnaires. An assessment of compliance will then take place using the Member State replies and the evidence submitted to determine if the obligations of the Directive have been met and a rating will be allocated to each Member State on their state of implementation of the Directive. Member States will then be given the opportunity to provide further evidence and improve their score for each reporting period.

4.3 Concluding Remarks

Given this is the first Implementation Questionnaire to address the Waste Framework Directive, there is no Implementation Questionnaire 2007-2009 to compare to for

recording progress across Member States. When considering the main elements of the Waste Framework Directive as presented in Section 1.1.1, the status of implementation across Member States is summarised below:

1) Question 1: Transposition

- 28 Member States have the laws, regulations and administrative provisions in place to incorporate the Directive in its amended (2008) form into national legislation.
- This includes the three Member States which did not submit replies to the Implementation Questionnaire for the 2010-2012 period. Using alternative data sources it was also possible to ascertain that Belgium, France and the Netherlands have transposed the amended Directive.

2) Question 2: Waste Hierarchy (Article 4)

- The 25 Member States which submitted replies to the Implementation Questionnaire 2010–2012 in this reporting period have all reported that they have implemented the waste hierarchy in their national legislation and that they have all introduced measures for the prevention and management of waste.
- 20 Member States reported either examples of deviations made from the hierarchy based on life-cycle thinking or else reported categorically that no such deviations have been made. Finland, Germany, and Sweden reported that their national legislation allows for the possibility of such deviations, but did not provide details of any such instances of this occurring. Bulgaria and Poland did not respond to the question.

3) Question 4: Extended Producer Responsibility (Article 8)

- The 25 Member States which submitted replies to the Implementation Questionnaire 2010–2012 reported that in this reporting period they have all incorporated extended producer responsibility measures into their national policy.
- The primary means these Member States reported as using for addressing extended producer responsibility concerns is through take-back obligations on those placing products on the market.
- Overall, it has been reported that less work has been done in terms of improving product design, and neither Austria, the Czech Republic, Italy nor Luxembourg submitted any examples of product design initiatives.

4) Question 6: Re-use, Recycling and Recovery (Article 11)

- By 2012, seven Member States reported that they had already met or exceeded the 50% re-use and recycling target of household waste, as outlined in Article 11(2)(a). These Member States were: Austria, Belgium, Denmark, France (2011), Germany (2011), Luxembourg (2011) and Sweden (2010).

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\(^{100}\) Using data reported for 2012 or for the most recent year available, indicated in the brackets, as was the case at the time of writing this report.
- Additionally, the Czech Republic, Hungary (2011), Ireland, Italy, Lithuania, the Netherlands and the United Kingdom all reported re-use and recycling figures which exceeded 40%, potentially indicating that they are on track to meet and exceed the 50% re-use and recycling rate of household waste by 2020.\textsuperscript{101} Greece and Romania did not provide any re-use or recycling data on household waste for any of the three years.

- By 2012, 14 Member States reported that they had already met or exceeded the 70% recovery target of C&D waste, as outlined in Article 11(2)(b).\textsuperscript{102} These Member States were: Austria, Belgium, the Czech Republic, Denmark, Estonia, Germany (2011), Ireland (2011), Italy (2011), Latvia, Luxembourg (2011), the Netherlands, Poland, Slovenia (2010) and the United Kingdom. Cyprus, France, Greece and Romania did not provide any data on construction and demolition waste for any of the three years.

- 21 Member States reported that they have introduced some forms of measures to promote re-use. In addition Croatia and Sweden reported that they have moved towards this by establishing the necessary legislative apparatus. Romania reported that it has a large domestic market for second hand goods as a result of comparatively lower standards of living within the country. Hungary reported that it had not introduced measures for the encouragement of re-use operations at the time of reporting.

\textbf{5) Question 9: Polluter Pays Principle (Article 14)}

- 26 Member States reported that they have incorporated the polluter pays principle into their national legislation and were able to state the allocation of costs and responsibilities they have made with regards to polluters. This includes Malta which reported that it had introduced producer responsibility measures, but it had not addressed the responsibilities of waste house within municipal systems, and the United Kingdom which reported levels the bulk of waste costs on municipalities, with only limited producer responsibility measures in place.

\textbf{6) Question 10: Principles of Self Sufficiency and Proximity (Article 16)}

- 25 Member States reported that they have followed the principles of self-sufficiency and proximity when planning their waste management infrastructure and establish national law. This includes Bulgaria, Croatia, and Hungary which did not provide much detail on this in their replies.

- The same three Member States as well as Austria gave very little detail in their replies on recovery in near and appropriate installations. In addition, the Czech

\textsuperscript{101} Using data reported for 2012 or for the most recent year available, indicated in the brackets, as was the case at the time of writing this report.

\textsuperscript{102} Using data reported for 2012 or for the most recent year available, indicated in the brackets, as was the case at the time of writing this report.
Republic reported that as waste management operates commercially, it is market forces and not state planning that determines the end destination of waste (and one would expect this to be true wherever waste management is operating as a primarily commercial undertaking).

- The Waste Framework Directive Implementation report 2007–2009\(^{103}\) concluded that most Member States were largely self-sufficient in non-hazardous waste disposal, but that for hazardous waste the rate of self-sufficiency was lower. As was the case in 2007-2009, many countries reported that they make use of the ability to access specialist hazardous waste treatment across national borders.

7) Question 11: Management of Hazardous Waste (Article 17)

- 25 Member States reported that they are managing hazardous waste in accordance with Article 13’s requirements on the protection of human health and the environment. This includes Croatia, Hungary, and Luxembourg which submitted replies with little detail on the measures in place.
- An area that could improve further is the requirement for labelling hazardous waste which is found in Article 19; Austria, Bulgaria, Denmark, Poland and Sweden did not provide any information on this point.
- 25 Member States submitting replies to the Implementation Questionnaire 2010–2012 have reported that they have implemented a mixing ban on hazardous waste in line with the requirements of the Directive. This includes Ireland which stated that derogations from the ban are allowed but did not explain whether any such derogations have indeed taken place.

8) Question 12: Waste Oils (Article 21)

- 24 Member States reported that they have introduced schemes for the separate collection of waste oils. Only the United Kingdom reported that it has not introduced a mandated scheme, having only voluntary agreements in place for the collection of oils.
- 24 Member States reported that they have implemented a ban on the mixing of waste oils. Again, only the United Kingdom reported that it has not introduced a

stand-alone ban on the mixing of waste oils, stating that this is covered under a more general ban on the mixing of hazardous wastes.

- 19 Member States reported that they have introduced additional measures for the separate collection and treatment of waste oils. These included, for example, technical requirements on the facilities treating the waste oils, and producer involvement on either a mandatory or voluntary basis.

- 19 Member States reported that they have established special requirements on regeneration, either requiring regeneration within their own borders or elsewhere if this is not technically possible, allowing a relaxation of export laws to allow for the export of waste oils for regeneration.

- This area is of particular interest as the revised Directive (2008) incorporated provisions on hazardous waste covered previously by Directive 75/439/EEC on the disposal of waste oils.

9) Question 14: Waste Management Plans (WMPs) (Article 28)

- 22 Member States reported that they have drawn up WMPs and have functioning and safe systems for the disposal of general and problematic waste, or else make good use of the infrastructure available in neighbouring states.

- Included in these 22 Member States is the Netherlands, which did not submit a reply to the Implementation Questionnaire 2010-2012. An alternative data source from the European Environment Agency\(^{104}\) indicated that the country draws up a new WMP every six years.

- Slovenia reported that it has not drawn up a WMP in line with the stipulations of the Waste Framework Directive, but has in place an operational programme for waste which covers some of the elements required of Member State waste management plans. Denmark reported that no WMP aimed at meeting the requirements of the Directive has been drawn up. Rather, effective during the 2010–2012 period was a plan tailored to the country’s own objectives. This plan ran to the end of 2012, at which time it was replaced by 98 municipal plans drawn up in accordance with chapter five of Denmark’s own Waste Order. Hungary indicated in its reply that it is in the process of drawing up a new WMP, to coincide with and reflect the implementation of its new waste act (‘the Waste Act’) which came into force in January 2013. However, no target publication date was submitted, and as of the time of writing no WMP had yet been published.

- In the Waste Framework Directive implementation Report 2007–2009\(^ {105}\) it was reported that all Member States had drawn up WMPs. The decrease in the number

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\(^{105}\) Consortium Expert Team to Support Waste Implementation (2012) *Preparation of implementation reports on waste legislation, including the Waste Shipment Regulation - Final Implementation Report for*
of Member States with WMPs in place in line with the requirements of the Directive in 2010-2012 is due in part to the overlap of the two reporting periods. The transitionary period following the 2008 amendment to the Directive means that WMPs made before the amendment of the Directive and in force from 2007–2009 would no longer have necessarily reflected the contents of the amended Directive in 2010-2012.

10) Question 16: Waste Prevention Programmes (WPPs) (Article 29)
- 17 Member States reported that they had Waste Prevention Programme published and in force during the 2010–2012 period.
- Out of the total of eight Member States which had not drawn up WPPs, four (Bulgaria, Croatia, Greece and Malta) reported that they were in the process of drawing plans up. Furthermore, Cyprus reported that it was preparing for a tender process for the creation of a plan. Denmark, Romania and Slovenia reported that they had not drawn up plans and demonstrated no intention of doing so. The reasons for this on the part of Romania and Slovenia were not reported, while Denmark reported that it has included waste prevention measures in its Waste Strategy.
- The eight Member States which had not published WPPs were generally unable to report on decoupling measures and progress made, the exception being Croatia which submitted a strong list of decoupling measures which it reported that it intends to include in its forthcoming WPP. The other Member States reported on measures of decoupling such as the source based disposal costs found in Germany and the Natural Resource Tax on harmful products found in Latvia.

**A.1.0 Appendix 1 – Table of Member State Implementation Questionnaires 2010-2012**

<table>
<thead>
<tr>
<th>Member State</th>
<th>Member State Implementation Questionnaires 2010-2012 received? (Y/N)</th>
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<tr>
<td>Lithuania</td>
<td>Yes</td>
<td>No date indicated</td>
</tr>
<tr>
<td>Member State</td>
<td>Member State Implementation Questionnaires 2010-2012 received? (Y/N)</td>
<td>Date received if available (DD/MM/YYYY)</td>
</tr>
<tr>
<td>------------------</td>
<td>---------------------------------------------------------------------</td>
<td>-----------------------------------------</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>Yes</td>
<td>No date indicated</td>
</tr>
<tr>
<td>Malta</td>
<td>Yes</td>
<td>13/11/2013</td>
</tr>
<tr>
<td>Netherlands</td>
<td>No</td>
<td>n/a</td>
</tr>
<tr>
<td>Poland</td>
<td>Yes</td>
<td>No date indicated</td>
</tr>
<tr>
<td>Portugal</td>
<td>Yes</td>
<td>No date indicated</td>
</tr>
<tr>
<td>Romania</td>
<td>Yes</td>
<td>No date indicated</td>
</tr>
<tr>
<td>Slovakia</td>
<td>Yes</td>
<td>No date indicated</td>
</tr>
<tr>
<td>Slovenia</td>
<td>Yes</td>
<td>27/03/2008</td>
</tr>
<tr>
<td>Spain</td>
<td>Yes</td>
<td>16/01/2014</td>
</tr>
<tr>
<td>Sweden</td>
<td>Yes</td>
<td>30/09/2013</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>Yes</td>
<td>Sep-13</td>
</tr>
<tr>
<td><strong>Percentage received:</strong></td>
<td><strong>89%</strong></td>
<td><strong>(25/28)</strong></td>
</tr>
</tbody>
</table>
## A.2.0 Appendix 2 – Figures on Recycling and Recovery

**Table A.2: Preparation for Re-use and Recycling Rates of Household Waste for 2010-2012**

<table>
<thead>
<tr>
<th>Member State</th>
<th>Calculation Method used by the Member State</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>2</td>
<td>79%</td>
<td>-</td>
<td>79%</td>
</tr>
<tr>
<td>Belgium</td>
<td>3</td>
<td>58%</td>
<td>59%</td>
<td>57%</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>3</td>
<td>29%</td>
<td>32%</td>
<td>-</td>
</tr>
<tr>
<td>Croatia</td>
<td>2</td>
<td>-</td>
<td>15%</td>
<td>-</td>
</tr>
<tr>
<td>Cyprus</td>
<td>2</td>
<td>20.3%</td>
<td>22.4%</td>
<td>-</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>2</td>
<td>38%</td>
<td>50%</td>
<td>46%</td>
</tr>
<tr>
<td>Denmark</td>
<td>1</td>
<td>-</td>
<td>-</td>
<td>53%</td>
</tr>
<tr>
<td>Estonia</td>
<td>2</td>
<td>-</td>
<td>27%</td>
<td>27%</td>
</tr>
</tbody>
</table>

---


107 Austria did not submit this figure as part of its reply to the Implementation Questionnaire 2010-2012, but submitted data directly to EUROSTAT via the EDAMIS portal.

108 Croatia did not submit data as part of its reply to the Implementation Questionnaire 2010-2012, but submitted data directly to EUROSTAT via the EDAMIS portal.
<table>
<thead>
<tr>
<th>Member State</th>
<th>Calculation Method used by the Member State</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finland</td>
<td>4</td>
<td>33%</td>
<td>35%</td>
<td>33%&lt;sup&gt;109&lt;/sup&gt;</td>
</tr>
<tr>
<td>France&lt;sup&gt;110&lt;/sup&gt;</td>
<td>2</td>
<td>-</td>
<td>59%</td>
<td>-</td>
</tr>
<tr>
<td>Germany&lt;sup&gt;111&lt;/sup&gt;</td>
<td>4</td>
<td>63%</td>
<td>63%</td>
<td>-</td>
</tr>
<tr>
<td>Greece</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Hungary</td>
<td>2</td>
<td>34%</td>
<td>40%</td>
<td>-</td>
</tr>
<tr>
<td>Ireland</td>
<td>1</td>
<td>53%</td>
<td>45%</td>
<td>44%</td>
</tr>
<tr>
<td>Italy&lt;sup&gt;112&lt;/sup&gt;</td>
<td>2</td>
<td>37%</td>
<td>39%</td>
<td>41%</td>
</tr>
<tr>
<td>Latvia</td>
<td>4</td>
<td>16%</td>
<td>18%</td>
<td>18%</td>
</tr>
<tr>
<td>Lithuania</td>
<td>2</td>
<td>37%</td>
<td>43%</td>
<td>42%</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>3</td>
<td>51%</td>
<td>50%</td>
<td>-</td>
</tr>
<tr>
<td>Malta</td>
<td>1</td>
<td>-</td>
<td>23%</td>
<td>24%</td>
</tr>
<tr>
<td>Netherlands</td>
<td>2</td>
<td>48%</td>
<td>48%</td>
<td>48%</td>
</tr>
</tbody>
</table>

<sup>109</sup> Finland did not submit this figure as part of its reply to the Implementation Questionnaire 2010-2012, but submitted data directly to EUROSTAT via the EDAMIS portal.
<sup>110</sup> France did not submit data as part of its reply to the Implementation Questionnaire 2010-2012, but submitted data directly to EUROSTAT via the EDAMIS portal.
<sup>111</sup> Germany did not submit data as part of its reply to the Implementation Questionnaire 2010-2012, but submitted data directly to EUROSTAT via the EDAMIS portal.
<sup>112</sup> Italy did not submit data as part of its reply to the Implementation Questionnaire 2010-2012, but submitted data directly to EUROSTAT via the EDAMIS portal.
Preparation of Implementation Reports on Waste Legislation, including the Waste Shipment Regulation

### Table A.3: Preparation for Recovery Rates of Construction and Demolition Waste for 2010-2012

<table>
<thead>
<tr>
<th>Member State</th>
<th>Preparation for Recovery Rates of Construction and Demolition Waste</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2010</td>
</tr>
<tr>
<td>Poland</td>
<td>2</td>
</tr>
<tr>
<td>Portugal</td>
<td>2</td>
</tr>
<tr>
<td>Romania</td>
<td>-</td>
</tr>
<tr>
<td>Slovakia</td>
<td>3</td>
</tr>
<tr>
<td>Slovenia</td>
<td>4</td>
</tr>
<tr>
<td>Spain</td>
<td>4</td>
</tr>
<tr>
<td>Sweden</td>
<td>2</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>3</td>
</tr>
</tbody>
</table>

Source: Data provided by Member States to the European Commission via the Implementation Questionnaires 2010-2012 or to EUROSTAT via the EDAMIS portal.

113 Portugal did not submit data as part of its reply to the Implementation Questionnaire 2010-2012, but submitted data directly to EUROSTAT via the EDAMIS portal.

114 Slovakia used calculation method 2 for 2011.

## Preparation for Recovery Rates of Construction and Demolition Waste

<table>
<thead>
<tr>
<th>Member State</th>
<th>Preparation for Recovery Rates of Construction and Demolition Waste</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2010</td>
</tr>
<tr>
<td><strong>Austria</strong></td>
<td>93%</td>
</tr>
<tr>
<td>Austria(^{116})</td>
<td></td>
</tr>
<tr>
<td><strong>Belgium</strong></td>
<td>96%</td>
</tr>
<tr>
<td><strong>Bulgaria</strong></td>
<td>21%</td>
</tr>
<tr>
<td><strong>Croatia</strong></td>
<td>-</td>
</tr>
<tr>
<td>Croatia(^{117})</td>
<td></td>
</tr>
<tr>
<td><strong>Cyprus</strong></td>
<td>-</td>
</tr>
<tr>
<td><strong>Czech Republic</strong></td>
<td>83%</td>
</tr>
<tr>
<td>Czech Republic</td>
<td></td>
</tr>
<tr>
<td><strong>Denmark</strong></td>
<td>-</td>
</tr>
<tr>
<td><strong>Estonia</strong></td>
<td>-</td>
</tr>
<tr>
<td><strong>Finland</strong></td>
<td>33%</td>
</tr>
<tr>
<td><strong>France</strong></td>
<td>-</td>
</tr>
<tr>
<td><strong>Germany</strong></td>
<td>95%</td>
</tr>
<tr>
<td>Germany(^{118})</td>
<td></td>
</tr>
<tr>
<td><strong>Greece</strong></td>
<td>-</td>
</tr>
<tr>
<td><strong>Hungary</strong></td>
<td>56%</td>
</tr>
<tr>
<td><strong>Ireland</strong></td>
<td>98%</td>
</tr>
<tr>
<td><strong>Italy</strong>(^{119})</td>
<td>69%</td>
</tr>
<tr>
<td>Italy(^{119})</td>
<td></td>
</tr>
<tr>
<td><strong>Latvia</strong></td>
<td>90%</td>
</tr>
</tbody>
</table>

\(^{116}\) Austria did not submit data as part of its reply to the Implementation Questionnaire 2010-2012, but submitted data directly to EUROSTAT via the EDAMIS portal.

\(^{117}\) Croatia did not submit data as part of its reply to the Implementation Questionnaire 2010-2012, but submitted data directly to EUROSTAT via the EDAMIS portal.

\(^{118}\) Germany did not submit data as part of its reply to the Implementation Questionnaire 2010-2012, but submitted data directly to EUROSTAT via the EDAMIS portal.

\(^{119}\) Italy did not submit data as part of its reply to the Implementation Questionnaire 2010-2012, but submitted data directly to EUROSTAT via the EDAMIS portal.
<table>
<thead>
<tr>
<th>Member State</th>
<th>Preparation for Recovery Rates of Construction and Demolition Waste</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2010</td>
</tr>
<tr>
<td>Lithuania</td>
<td>59%</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>91%</td>
</tr>
<tr>
<td>Malta</td>
<td>-</td>
</tr>
<tr>
<td>Netherlands</td>
<td>94%</td>
</tr>
<tr>
<td>Poland</td>
<td>69%</td>
</tr>
<tr>
<td>Portugal</td>
<td>33%</td>
</tr>
<tr>
<td>Romania</td>
<td>-</td>
</tr>
<tr>
<td>Slovakia</td>
<td>41%</td>
</tr>
<tr>
<td>Slovenia</td>
<td>79%</td>
</tr>
<tr>
<td>Spain</td>
<td>66%</td>
</tr>
<tr>
<td>Sweden</td>
<td>60%</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>93%</td>
</tr>
</tbody>
</table>

*Source: Data provided by Member States to the European Commission via the Implementation Questionnaires 2010-2012 or to EUROSTAT via the EDAMIS portal.*

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120 Portugal did not submit data as part of its reply to the Implementation Questionnaire 2010-2012, but submitted data directly to EUROSTAT via the EDAMIS portal.