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Prepared by Eunomia, ENT, IVL and EPEM

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## Glossary

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<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deposit-refund scheme</td>
<td>Recovery system that requires the collection of a monetary deposit on a product’s packaging (often beverage containers) at the point of sale. The deposit is refunded to the purchaser when they return the container to an authorised redemption centre. Non-recovered deposits may be used to finance waste collection and disposal facilities. ¹</td>
</tr>
<tr>
<td>Economic operators</td>
<td>A party involved in the international movement of goods in whatever function that has been approved by or on behalf of a national Customs administration as complying with the World Customs Organisation (WCO) or equivalent supply chain security standards.</td>
</tr>
<tr>
<td>Extended producer responsibility (EPR)</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>Packagers</td>
<td>A person or company that packages a product or merchandise for commercial sale.</td>
</tr>
<tr>
<td>Polluter Pays Principle (PPP)</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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<table>
<thead>
<tr>
<th>Term</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Producers / Producer Organisations</td>
<td>Producers are individuals or companies which create economic value or produce goods and services. In this context they are expected to assume extended responsibility for the products they put on the market. In practice, the extended responsibility is frequently assumed by other stakeholders, e.g. importers, marketers, retailers and distributors.⁴</td>
</tr>
<tr>
<td>Recovery</td>
<td>Any operation whose principal result is waste serving a useful purpose by replacing other materials which would otherwise have been used to fulfil a particular function (or waste being prepared to fulfil that function).⁵</td>
</tr>
<tr>
<td>Recycling</td>
<td>Any recovery operation by which waste materials are reprocessed into products, materials or substances whether for the original or other purposes. It includes the reprocessing of organic material, but does not include energy recovery and the reprocessing into materials that are to be used as fuels or for backfilling operations.⁶</td>
</tr>
<tr>
<td>Re-use</td>
<td>Any operation by which products or components that are not waste are used again for the same purpose for which they were conceived.⁷</td>
</tr>
<tr>
<td>Take-back obligation / system</td>
<td>Obligations for producers or distributors to take-back their products from end users at the end of the products’ useful life by establishing take-back systems.⁸</td>
</tr>
</tbody>
</table>

⁵ ibid.
⁶ ibid.
⁷ ibid.
⁸ ibid.
1.0 Introduction

1.1 The Packaging and Packaging Waste Directive

The Packaging and Packaging Waste Directive (94/62/EC)\(^9\) (hereafter referred to as the ‘Packaging and Packaging Waste Directive’ or ‘the Directive’) was adopted to harmonise national measures concerning the management of packaging and packaging waste and to prevent and reduce its impact on the environment.

The Directive has seen a number of amendments over recent years. These can be summarised as follows:

- In 2004, it was amended to provide criteria clarifying the definition of the term ‘packaging’ and to increase the targets for recovery and recycling of packaging waste (Directive 2004/12/EC\(^{10}\)).

- In 2005, it was revised again to allow for new Member States to attain the recovery and recycling targets (Directive 2005/20/EC)\(^{11}\).

- In 2009, Regulation 219/2009/EC adapted a number of Articles with regard to the regulatory procedure with scrutiny.\(^{12}\) This included Article 3(1), 11(3), 12(3), 19, 20(1) and 21(3).

- In 2013, Annex I of the Directive which contains the list of illustrative examples of items that should and should not be considered as packaging was revised in order to provide more clarity by adding a number of examples to the list (Commission Directive 2013/2/EC)\(^{13}\).

- In 2015, Directive 2015/720/EC was adopted, amending Directive 94/62/EC with regards to the consumption of lightweight plastic carrier bags. It includes specific

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measures to address their consumption given the issues with use of resources and littering.\textsuperscript{14}

1.1.1 Main Provisions

The main elements of the Packaging and Packaging Waste Directive according to Commission Implementing Decision of 97/622/EC are summarised below.\textsuperscript{15}

- Prevention (Article 4)
  - Article 4 requires Member States to prevent the formation of packaging waste through a series of measures.

- Re-use (Article 5)
  - Article 5 requires Member States to encourage re-use systems for packaging in an environmentally sound manner.
  - Article 14 requires Member States to include in the waste management plans required by Article 17, a specific chapter on the management of packaging and packaging waste including measures taken pursuant to Articles 4 and 5.

- Recovery and recycling (Article 6)
  - Article 6 requires Member States to achieve certain targets with regards to recovery and recycling. These targets are as follows:
    a) No later than the 30\textsuperscript{th} of June 2001 between 50 % as a minimum and 65 % as a maximum by weight of packaging waste will be recovered or incinerated at waste incineration plants with energy recovery;
    b) No later than the 31\textsuperscript{st} of December 2008 60 % as a minimum by weight of packaging waste will be recovered or incinerated at waste incineration plants with energy recovery;
    c) No later than the 30\textsuperscript{th} of June 2001 between 25 % as a minimum and 45 % as a maximum by weight of the totality of packaging materials contained in packaging waste will be recycled with a minimum of 15 % by weight for each packaging material;
    d) No later than the 31\textsuperscript{st} of December 2008 between 55 % as a minimum and 80 % as a maximum by weight of packaging waste will be recycled;
    e) No later than the 31\textsuperscript{st} of December 2008 the following minimum recycling targets for materials contained in packaging waste will be attained:


i. 60 % by weight for glass;
ii. 60 % by weight for paper and board;
iii. 50 % by weight for metals;
iv. 22.5 % by weight for plastics, counting exclusively material that is recycled back into plastics; and
v. 15 % by weight for wood.

Some Member States have been granted transitional periods regarding the targets. These are summarised in Table 1. According to Directive 2005/20/EC:

Member States having acceded to the European Union (EU) by virtue of the Accession Treaty of 16th of April 2003 may postpone the attainment of the targets referred to in Article 6 of Directive 94/62/EC paragraph 1(b), (d) and (e) until a date of their own choosing which shall not be later than 31st of December 2012 for the Czech Republic, Estonia, Cyprus, Lithuania, Hungary, Slovenia and Slovakia; 31st of December 2013 for Malta; 31 December 2014 for Poland; and 31st of December 2015 for Latvia.

- Return, collection and recovery systems (Article 7)
  - Article 7 requires Member States to take the necessary measures to ensure that systems are set up for the return, collection, re-use, recovery, and recycling of packaging and packaging waste, which will be open to the participation of economic operators.

- Concentration of heavy metals present in packaging (Article 11)
  - Article 11 requires Member States to comply with certain concentration levels of lead, cadmium, mercury and chromium in packaging and packaging waste.
  - Article 7 of the Commission Decision of the 24th of March 2009 establishing the conditions for a derogation for plastic crates and plastic pallets in relation to the heavy metal concentration levels established in the Directive, states that Member States shall include in the reports to be submitted to the Commission under Article 17 of Directive 94/62/EC a detailed report on the functioning of the system provided for in this Decision and on the progress made in phasing out plastic crates and plastic pallets which are not in conformity with Article 11(1) of Directive 94/62/EC.\(^{17}\)

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\(^{17}\) It is worth noting that in the Implementation Questionnaire 2013-2015, no specific question in this regard is included, however, information must still be provided by the Member States.
<table>
<thead>
<tr>
<th>Member State</th>
<th>Recovery</th>
<th>Recycling</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Article 6(1)(b)</td>
<td>Article 6(1)(d)</td>
</tr>
<tr>
<td></td>
<td>Overall: 60%</td>
<td>Overall: 55-80%</td>
</tr>
<tr>
<td></td>
<td>Article 6(1)(d)</td>
<td>Glass: min. 60%</td>
</tr>
<tr>
<td></td>
<td>Article 6(1)(d)</td>
<td>Paper &amp; board: min. 60%</td>
</tr>
<tr>
<td></td>
<td>Article 6(1)(d)</td>
<td>Metals: min. 50%</td>
</tr>
<tr>
<td></td>
<td>Article 6(1)(d)</td>
<td>Plastics: min. 22.5%</td>
</tr>
<tr>
<td></td>
<td>Article 6(1)(d)</td>
<td>Wood: min. 15%</td>
</tr>
<tr>
<td>Austria, Belgium, Denmark, Finland, France, Germany, Italy, Luxembourg, the Netherlands, Spain, Sweden, the UK</td>
<td>Overall: 60%</td>
<td>31.12.2008</td>
</tr>
<tr>
<td>Greece, Ireland and Portugal</td>
<td></td>
<td>31.12.2011</td>
</tr>
<tr>
<td>Malta</td>
<td></td>
<td>31.12.2013</td>
</tr>
<tr>
<td>Poland</td>
<td></td>
<td>31.12.2014</td>
</tr>
<tr>
<td>Latvia</td>
<td></td>
<td>31.12.2015</td>
</tr>
<tr>
<td>Member State</td>
<td>Recovery</td>
<td>Recycling</td>
</tr>
<tr>
<td>--------------</td>
<td>----------</td>
<td>-----------</td>
</tr>
<tr>
<td></td>
<td>Article 6(1)(b)</td>
<td>Article 6(1)(d)</td>
</tr>
<tr>
<td>Romania</td>
<td>Overall: 60%</td>
<td>Overall: 55-80%</td>
</tr>
</tbody>
</table>

• Information systems for Member States and the Commission (Article 12)
  o Article 12 requires Member States to take measures to ensure that databases on packaging and packaging waste are established, where not already in place, on a harmonised basis in order to allow Member States and the Commission to monitor implementation of the objectives in the Directive.
  o Harmonisation of the data shall be achieved through Member States providing data in formats adopted on the basis of Annex I II.
• Information for users of packaging (Article 13)
  o Article 13 requires Member States to ensure that users of packaging have information on the return, collection and recovery systems available, what their role is, and the appropriate elements of the management plans.
• Economic Instruments (Article 15)
  o Article 15 requires Member States to use economic instruments to promote the implementation of the objectives set out in the Directive.

1.2 About this Report

This Implementation Report is a summary and analysis of the replies provided by Member States to the Implementation Questionnaire covering the Packaging and Packaging Waste Directive for the period 2013-2015, pursuant to European Commission Implementing Decision 97/622/EC. This report is part of a series of Implementation Reports that is published on the Packaging and Packaging Waste Directive every three years. Previous reports are available on the Commission’s website.

Member States are required to submit responses to the Implementation Questionnaire to the Commission. The deadline for 2013-2015 responses was the 29th September 2016.

However, any information submitted by Member States up to 30\textsuperscript{th} November 2017 was also taken into consideration.

This report is structured as follows:

- **Section 2.0**: summarises Member State responses to the questions concerning the transposition of the Directive into national legislation;
- **Section 3.0**: summarises Member State responses to the question on the implementation of the Directive;
- **Section 4.0**: presents Member States packaging waste generation, recovery and recycling rates;
- **Section 4.3.3**: provides a summary of the implementation of the Directive;
- **Appendix A.1.0**: provides a tabular summary of the number of Member States which have submitted replies to the Implementation Questionnaires to the Commission for the Directive for the period 2013-2015; and
- **Appendix A.2.0**: presents recycling and recovery rates for packaging waste by Member State in graphical form.

### 1.2.1 Sources of Information

Some Member States failed to submit a questionnaire (see Section 1.2.2), or did not respond to particular questions. In these instances it was necessary to consider other sources, where available. Whenever a source other than the Member State replies to the Packaging and Packaging Waste Directive Implementation Questionnaire 2013-2015 is used, this has been clearly stated. Examples include questionnaires from previous reporting periods (e.g. 2010-2012), reports issued from Eurostat and the European Environment Agency, information found on EUR-Lex\textsuperscript{20} or any relevant documentation found on national websites of Member States.

In order to identify any progress or changes in the way the Directive has been implemented, this report compares Member States responses to the Implementation Questionnaire 2013-2015 with the responses provided in 2010-2012. If these were not available, then earlier questionnaires (e.g. 2007-2009) were used as a comparison. The exception to this is Croatia, which became a Member State of the European Union on July the 1\textsuperscript{st} 2013. Therefore comparisons with earlier years were not possible.

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 report.

1.2.2 Member State Implementation Questionnaires Considered for this Report

Table A - 1 in Appendix A.1.0 presents in a table the Member States which submitted completed Implementation Questionnaires 2013-2015 to the Commission. It shows that 21 Member States submitted an Implementation Questionnaire for this reporting period. Seven member states did not submit a response. These were France, Germany, Hungary, Ireland, Italy, Romania and the United Kingdom.

It is also worth noting that Romania and the United Kingdom did not respond in the previous reporting period (2010-2012) as well as in the current reporting period (2013-2015). As such the 2007-2009 Implementation Report, summarising the 2007-2009 Implementation Questionnaires has been used throughout. It has therefore not been possible to assess change in implementation in these Member States.

Finally, the responses given by Belgium and Spain are worth mentioning. In general, both Member States responded to each question with a summary of action(s) taken at national level, followed by detail of programmes specific to the regions. In Belgium these are given for Flanders, Walloon and the Brussels-Capital region. Where this detail has been provided it has been summarised and included in the report. The responses from Spain were similar with detail provided on measures taken in certain Autonomous Communities, in general, Spain highlighted measures taken in a few Autonomous Communities in each response. Overall, where detail has been provided and was relevant it has been preserved in the summary of the Member State response.
2.0 Transposition into National Law

Member States are required to transpose the Packaging and Packaging Waste Directive and its requirements into national legislation. This section summarises Member State responses to the questions concerning transposition.

2.1 Transposition into National Law

**Question 1: Is there a national law transposing Directive 94/62/EC, including any amendments? If not, state why.**

*Article 22* states that Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with this Directive before 30 June 1996.

With regards to Question 1, 27 Member States responded “Yes” with some providing further details on their relevant national laws, regulations and administrative provisions introduced to incorporate the Packaging and Packaging Waste Directive into national legislation.

This includes the seven Member States which did not submit completed Implementation Questionnaires to the Commission for 2013-2015. Based on the implementation questionnaires submitted by France, Germany, Hungary, Ireland and Italy for the 2010-2012 period it can be confirmed that these Member States also have current laws and regulations in force to incorporate the Directive into national legislation. For the United Kingdom and Romania the same is true except that the 2007-2009 Implementation Questionnaires were used. This is due to the fact that neither the United Kingdom nor Romania have submitted a completed Implementation Questionnaire for the last two reporting periods (2010-2012 and 2013-2015).

Portugal was the only Member State to answer “No”.

*Member State responses which provided additional detail are summarised below:*

Belgium, Croatia, Lithuania, Malta and Slovakia provided in their responses a full list of legislative acts, and/or amendments, used to implement the Directive into national law.

Portugal answered “No” to this question. It detailed in its response that there was a need to make adjustments to the current legislation under the latest revision of the Directive, relating to lightweight plastic bags. Member states were given until November 2016 to implement this revision and Portugal stated that once adjustments are made to ensure compliance the Commission will be notified.

**Conclusion:**

All Member States which submitted completed Implementation Questionnaires to the Commission for 2013-2015 have provided the Commission with details on their laws,
regulations and administrative provisions introduced to incorporate the Packaging and Packaging Waste Directive into national legislation in 2013-2015. This was the case in the 2010-2012 and 2007-2009 reporting periods as well.
2.2 Plans for Further Measures in Relation to Article 16

Question 2: Are there plans to adopt further measures not detailed below within the framework of the Directive and under the scope of the notification obligation of Article 16? If yes, has the Commission been notified of the measures? If no, state why.

Article 16 relates to the procedure for the provision of information on technical and economic measures to the Commission as outlined in Directive 98/34/EC on the provisions of information in the field of technical standards and regulations,¹ replacing Directive 83/189/EEC on technical standards and regulations,¹ whereby before adopting such measures Member States should notify the Commission. This excludes measures of a fiscal nature, but includes technical specifications linked to fiscal measures which encourage compliance with such technical specifications.

With regards to Question 2, 13 Member States reported that they had plans to adopt further measures which go beyond the scope of the Directive. These Member States were Austria, Belgium, Estonia, Finland, Germany, Greece, Luxembourg, Malta, the Netherlands, Poland, Slovakia, Spain and Sweden. 15 Member States reported that they did not have plans to adopt further measures which go beyond the scope of the Directive. These were Bulgaria, Cyprus, Croatia, the Czech Republic, Denmark, France, Hungary, Ireland, Italy, Latvia, Lithuania, Portugal, Romania, Slovenia and the United Kingdom.

Due to an absence of responses in the 2013-2015 period for France, Germany, Hungary, Ireland and Italy the 2010-2012 Implementation Questionnaires have been used for these Member States. For Romania and the United Kingdom the 2007-2009 Implementation Questionnaires have been used as no response was received in the 2010-2012 reporting period or 2013-2015 reporting period.

Many of the Member States who answered “No” to having plans to adopt further measures did not elaborate on their answer. Where a reason was included in the Member State response it is discussed below.

Member State responses are summarised below:

Estonia, Finland, Germany, Luxembourg, the Netherlands, and Slovakia indicated that they have or will be adopting further measures under the notification obligation of Article 16. The Commission has been notified and no further detail has been provided by the Member States in the Implementation Questionnaires.

Austria responded “Yes”, that there were plans to adopt further measures but did not provide additional detail in this reporting period. In the previous reporting period (2010-2012) Austria indicated that work was in progress to adopt further implementing measures and that these have been communicated to the Commission. Austria is
planning a revision of the Packaging Ordinance to allow increased competition in collection and recovery systems in the household sector.

**Belgium** indicated that there were plans to adopt further measures according to Article 16 on which the Commission has been notified already. There are target percentages for recycling and recovery which go beyond the objectives set by the Commission. These are elaborated on in the response to 1.3. In addition, initiatives have been taken in transposition of the European Parliament Directive 2015/720 Council of the 29th of April 2015 as amends Directive 94/62/EC regarding the reduction of consumption of lightweight plastic bags. Belgium reports that these initiatives are still in the development phase.

**Cyprus** indicated that further measures had not been adopted due to lack of requirement, and cited the cost of implementing them as the reason why.

The **Czech Republic** did not adopt further measures as packaging and packaging waste management, stating that sufficient national legislation was in place already.

**Denmark** responded that there was no need to adopt further measures at present but that the Commission would be notified if this were to change.

**Greece** indicated that there are plans to adopt further measures with no additional detail provided in this reporting period (2013-2015). In the previous reporting period (2010-2012) Greece reported that a new law on recycling was being drafted and would be adopted.

**Malta** is currently in the process of finalising a comprehensive revision of its Waste Management Plan that would enable the Member State to align with the requirements of the Directive. The revised plan, which is intended to be published shortly “*may make use of further economic instruments*”. No further detail has been provided by the Member State in the Implementation Questionnaire.

**Poland** has plans to adopt further measures but the Commission has not yet been notified of the measures. The explanation is that legislative work is ongoing and is not yet sufficiently advanced to notify the Commission.

**Spain** reported that it had plans which go beyond the scope of the obligation of Article 16 and that these had not been communicated to the Commission. The response states that they plan to develop a standard transposing the directive 2015/720/EU regarding reduction in consumption of lightweight plastic bags. The final text will be submitted to the Commission when complete.

**Sweden** has plans which go beyond the scope of the obligation of Article 16. The response detailed that these further measures will include recycling targets for 2020 above the level set by the Commission.

**Conclusion:**

*Austria, Belgium, Estonia, Finland, Germany, Greece, Luxembourg, Malta, the Netherlands, Slovakia, Spain and Sweden (12) reported that there are plans to adopt*
further measures under the scope of the notification obligation of Article 16. This presents an increase in the number of countries adopting measures which go beyond the scope of the Directive. The number increases from eight Member States in the 2010-2012 period to 12 Member States reporting additional measures in the 2013-2015 period. The countries reporting additional or further measures in the 2010-2012 period were Austria, Belgium, Croatia, Estonia, Finland, Germany, Greece and Malta.
2.3 Programs with Objectives Beyond Those in Article 6 (1) (a) and (b)

Question 3: If programmes have been set up the objectives of which go beyond those referred to in Article 6 (1) (a) and (b), have these objectives been communicated to the Commission? If no, state why.

Article 6 (1) (a) relates to targets of packaging waste recovered or incinerated at waste incineration plants with energy recovery no later than the 30th of June 2001.

Article 6 (1) (b) relates to targets of packaging waste recovered or incinerated at waste incineration plants with energy recovery no later than 31st of December 2008.

With regards to Question 3, Belgium, Denmark, Estonia, Finland, the Netherlands, Spain and Sweden (7) have reported that they have set up objectives that go beyond those referred to in Article 6 (1) (a) and (b). The other reporting Member States (14) have not and the reasoning provided in general has been that the measures taken to date are considered sufficient for achieving the objectives.

France, Germany, Hungary, and Ireland did not submit completed Implementation Questionnaires for 2013-2015. The 2010-2012 Implementation Questionnaires were used to gather responses, and these Member States all reported having not set up objectives beyond those in Article 6 (1)(a) and (b). Italy reported the existence of objectives beyond those in Article 6(1) (a) and (b) in the 2010-2012 period. Romania and the United Kingdom did not respond in the 2010-2012 reporting period, but in the 2007-2009 period both answered negatively for this question. Greece did not respond to this question in the 2013-2015 Implementation Questionnaire and so the response from the 2010-2012 reporting period has been used instead where it too responded negatively.

Thus, in total, eight Member States have set up objectives that go beyond those referred to in Article 6(1) (a) and (b). The remaining 20 Member States have not.

Member State responses are summarised below:

Austria, Bulgaria, Croatia, Cyprus, the Czech Republic, France, Greece, Germany, Hungary, Ireland, Latvia, Lithuania, Luxembourg, Malta, Poland, Portugal, Romania, Slovakia, Slovenia and the United Kingdom reported that no programmes whose objectives go beyond those referred to in Article 6 (1) (a) and (b) have been set up. No further details were provided by the majority of these Member States, the exceptions being Croatia, Latvia and Ireland.

Denmark, Estonia, Finland, Italy the Netherlands and Spain responded yes, that programmes had been set up, with objectives that go beyond those referred to in Article 6(1) (a) and (b). No further detail was provided on the programmes.
Belgium indicated that there are target percentages for recycling and recovery which go beyond the objectives set by the Directive. These are split by the type of waste (household or industrial), and by material. The targets are as follows:

- For household packaging waste (2009) a target of 80% recycling is set, and a target of 90% for recovery; and
- For industrial packaging waste (2009) a target of 75% recycling is set, and a target of 80% for recovery.

This is higher than the level required by Article 6(1) (b), which sets the minimum recovery rate for packaging waste at 60%. It also goes above the target of 55% recycling for packaging waste set out in Article 6(1) (d).

Material specific targets which Belgium has adopted are summarised in Table 2-1. These go above the material specific targets laid out in Article 6(1) (e) for plastics – increasing the target to 30% compared to 22.5%. A separate target for beverage cartons is also included.

**Table 2-1: Material specific targets for recycling in Belgium**

<table>
<thead>
<tr>
<th>Material</th>
<th>Glass</th>
<th>Paper and Cardboard</th>
<th>Beverage Cartons</th>
<th>Metals</th>
<th>Plastics</th>
<th>Wood</th>
</tr>
</thead>
<tbody>
<tr>
<td>Target % (by weight)</td>
<td>60%</td>
<td>60%</td>
<td>60%</td>
<td>50%</td>
<td>30%</td>
<td>15%</td>
</tr>
</tbody>
</table>

Croatia, answered “No” and detailed that as a new Member State, it has decided to achieve the targets as they are provided in the Directive. It is foreseen that by the end of 2016 a new Waste Management Plan will be adopted. Currently, the environmental authorities are conducting an analysis of packaging materials and their recycling and recovery capacities. As such, Croatia is not in a position to consider a decision on setting up the objectives which go beyond those referred to in Article 6 (1)(a) and (b) of the Directive.

Cyprus responded that no specific programmes had been set up with objectives going beyond the targets for recovery. Cyprus mention inclusion of a term referring to recovery targets in the terms of license of the collective management system for packaging waste (Green Dot). Until the end of the license in July 2019 the system must increase the percentage of recovery to 75%, representing an increase of 5% every two years. This is a target above the level detailed in Article 6 of the Directive, set at 60% energy recovery or incineration for packaging waste.

In Ireland, the Waste Management (Packaging) Regulations 2007 (S.I. No. 798 of 2007) consolidate the previous suite of regulations made in 2003, 2004 and 2006 respectively.

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21 Recovery includes incineration with energy recovery
The Regulations provide the regulatory framework for the management, recovery and recycling of packaging and packaging waste in Ireland. The regulations are designed to facilitate the achievement of Ireland’s targets in accordance with the requirements of Directive 94/62/EC on packaging and packaging waste as amended by Directive 2004/12/EC and do not introduce measures/programmes designed to exceed the objectives set out in Articles 6(1)(a) and (b) of the aforementioned Directive.

Latvia responded that no programmes have been devised during the reporting period which have objectives going beyond those referred to in Article 6(1) (a) and (b) of the directive. Latvia explained that this is as the Latvian authorities can defer fulfilment of the objectives until the 31st of December 2015 – the end of this reporting period.

Sweden included new provisions in the Ordinance (2014:1073) on producer responsibility for packaging waste. These provisions included targets for recycling of packaging waste set at a higher level than in Article 6(1) (a) (b) and (d) of the directive. Targets for recycling of materials in packaging waste have also been set at levels higher than those stipulated in Article 6 (1) (e). From 2020, recycling rate targets will apply as follows for the different categories of packaging waste:

- 65% of all packaging waste;
- 85% of paper, paperboard, cardboard, and corrugated cardboard;
- 50% of plastic excluding drinks packaging;
- 90% of glass.

Conclusion:

Belgium, Denmark, Estonia, Finland, Italy, the Netherlands, Spain and Sweden have reported that they have set up objectives that go beyond those referred to in Article 6 (1) (a) and (b). This presents an addition of three Member States (Denmark, Finland and Sweden) when compared to the 2010-2012 period.

Member States which did not adopt further measures generally responded that they felt that the application of the Directive was sufficient and didn’t require additional legislation to form an effective management plan for packaging and packaging waste.

When Member States included in their responses other measures than those referring to targets in Article 6 such as the material specific recycling targets in Article 6 (1) (e), these have still been considered.

In terms of good practice, Belgium and Sweden reported setting targets for recycling above those required by Article 6(1) (d), and above the recovery targets in Article 6 (1) (a) and (b). Sweden will have a recycling target of 65% for packaging waste in force by 2020, which is outside the scope of this reporting period but still worth highlighting. Belgium has had targets of 80% recycling and 90% recovery for household packaging in place since 2009 as well as targets of 75% recycling and 80% recovery for industrial packaging waste, also in place since 2009.

Sweden and Belgium have also both set materials specific targets above those listed in Article 6 (1) (e). Belgium has gone above the recycling rate required for plastics, whilst Sweden’s recycling rate targets go above those in Article 6 (1) (e) for all materials they
have listed (plastic, glass and paper/cardboard) but will not come into force until 2020. Belgium has listed an individual target for recycling of beverage cartons which demonstrates additional effort to ensure recycling of a potentially more difficult type of packaging.
3.0 Implementation of the Directive

The remaining questions of the Implementation Questionnaire 2013–2015 concern the particulars of how a number of the Directive’s requirements have been implemented by Member States. The sub-sections below summarise Member State responses to these questions.

3.1 Prevention of Packaging Waste

**Question 1: Have measures to prevent the formation of packaging waste been implemented in accordance with Article 4, other than those introduced in accordance with Article 9? If no, why not. If yes, describe the measures taken referring to any consultation with economic operators.**

**Article 4** requires Member States to implement measures to prevent the formation of packaging waste in addition to those taken in accordance with Article 9. It also states that the Commission shall help to promote prevention by encouraging the development of suitable European standards.

**Article 9** states that packaging may be placed on the market only if it complies with all the essential requirements defined by this Directive including Annex II. It also requires Member States to communicate to the Commission information concerning their national standards.

All **Member States (21)** which have submitted completed Implementation Questionnaires for 2013-2015 have reported that they have taken action to prevent packaging waste. **Poland** is an exception as although it has completed a response and answered “Yes” to this question its response related mostly to the packaging of hazardous materials and did not fully address the question.

Based on the completed Implementation Questionnaires for the 2010-2012 reporting period, in the absence of completed Implementation Questionnaires for the 2013-2015 reporting period, it can be concluded that **France, Germany, Hungary, Ireland** and **Italy** have also reported that they have implemented measures to prevent the generation of packaging waste. **Romania** and the **United Kingdom** reported in the 2007-2009 period that measures had been taken also.

Therefore, all **28** Member States have at some point reported taking measures to prevent the formation of packaging waste.

**Member State responses are summarised below:**

In **Austria**, the Federal Ministry of Agriculture, Forestry, Environment and Water, waste associations and collection and recovery systems inform on prevention opportunities and advantages of return systems for used packaging. Collection and recovery systems
have to support projects on waste prevention to an extent of 0.5% of the system fees, which amounts to around €800,000 per year.

In Belgium, the 6th General Prevention Plan for the 2013-2016 period was submitted on September 30th 2013. The 7th version of the plan for 2016-2019 was to be submitted by 30th June 2016 and this plan addresses prevention at a national level. In the Cooperation Agreement on Packaging Waste, the three Belgian regions agreed to prevent and manage all packaging waste on Belgian territory.

A range of measures have been introduced in the three Belgian regions: Flanders, Wallonia and the Brussels-Capital region. Across all three there is a voluntary agreement with the distribution sector targeting reduction of disposable bags. In the Walloon region single use bags made from light or very light plastic are prohibited in retail outlets from the 1st of December 2016 for carrier bags, and from 1st March 2017 for other packaging bags.

In the Flemish region of Belgium, a number of programmes involving encouragement for environmentally responsible products, and sustainable public procurement have contributed to prevention of packaging waste. Their prevention policy led to a 40% reduction in disposable carrier bags in three years. The Flemish government further supports “3-pillar” pilot projects looking to prevent waste with between €25,000-50,000 of funding depending on the type of project. These three pillars are a scientific pillar (Summa), an experimental pillar (PlanC) and an action pillar. OVAM, The Public Waste Agency of Flanders, has also presented local administrations with information and assistance for organising low-waste events.

The Brussels-Capital region of Belgium adopted their fourth plan for prevention and waste management in 2010 which applies indefinitely will be evaluated at least every five years. The plan has a number of actions which relate to the prevention of packaging waste and includes information campaigns and efforts to raise awareness surrounding over-packaging. As well as this, there is an aim to continue trying to reduce over-packaging, and participation in the European campaign “~100kg of waste”. The “~100kg of waste” campaign is an ACR+ initiative which aims to reduce the municipal waste of each inhabitant by 100kg per annum.

In addition, in the Brussels-Capital region, measures to prevent the formation of packaging waste have been targeted at certain sectors. This includes action to change practice relating to water distribution in sports clubs and budget contributions to support waste prevention in schools. In the HoReCa (Hotels, Restaurants and Cafes) sector a number of actions have been undertaken to prevent the formation of packaging waste and are listed below:

- a study has been undertaken to establish the argument for provision of jugs of tap water in Brussels restaurants;
- work has been undertaken to analyse the state of take-away catering practices in terms of packaging and identification of the conditions for successful use of reusable packaging;
- Support has been provided for reusable packaging projects in the takeaway sector (Tiffin – 2013, 2014); and
- A call was put out for projects with young Brussels designers to stimulate innovation for reusable packaging in the takeaway sector which was led by MAD (Fashion and Design, Brussels).

In the retail sector:
- Reduction of carrier bags is targeted; and
- There are aims to develop a multi-pocket bag prototype which avoids mixing market bought food in reusable shopping bags, caddies or backpacks.

Finally, in the Walloon region of Belgium, there are three key “flows” of actions relating to the prevention of packaging waste. These are:
- Promote the eco-design of packaging;
- Promote reusable packaging and take action to reduce over-packaging; and
- Promote beverage distribution systems which generate less packaging waste.

Fost-Plus, the organisation responsible for promoting, coordinating and financing the selective collecting, sorting and recycling of household packaging waste in Belgium pays a contribution to the regions and on the basis of that contribution a number of actions have been carried out in Walloon looking at preventing packaging waste. These were:
- The Greener Packaging Award: a reward for companies investing in sustainable packaging;
- At the Dustbin: a call for projects to raise awareness and improve management of packaging waste in municipalities; and
- Emball’Agir: a call for projects for waste management actions at major events (festivals, fairs, sports events ...). Projects such as the use of reusable cups, supply of sorting bins, reductions in the production of posters and programs, and awareness-raising activities have been financially supported.

In Bulgaria, packaging and packaging waste standards BDS EN 13 427-13 432 have been introduced to prevent the generation of packaging waste. A product tax on packaging has also been introduced. This encourages manufacturers to use less packaging so as to avoid paying greater amounts of product tax. A product tax on non-recyclable polymer bags has also been introduced to limit the use of thin plastic bags which are a major source of pollution. The National Waste Management Programme (NPUDO), which is required under national legislation, includes a separate chapter on the management of packaging and packaging waste, measures to prevent or minimise the formation of packaging waste, and the reuse of packaging. In addition Bulgaria details that it transposed the Directive 2015/720 (EU) amending The Packaging and Packaging Waste Directive regarding the consumption of lightweight plastic carrier bags.

In Croatia, the Ordinance on Packaging and Packaging Waste stipulates fees for producers which place packaged products on the Croatian market, and stipulates special additional fees for manufacturers which place beverages in non-returnable packaging. Furthermore, producers have to apply a deposit-return system, called the “returnable fee”, which is applied to the entire distribution chain. Consumers are entitled to a
reimbursement if they return certain packaging for beverages. The deposit return system contributes to preventing the formation of packaging waste from beverage containers.

In Cyprus, the waste prevention programme contains actions and measures which follow the waste hierarchy. It focuses on plastic water bottles and bags using public awareness campaigns and informative projects to minimise their use. These projects include voluntary agreements between competent authorities and the private sector/other stakeholders.

In addition, educational material is distributed to schools, fairs, festivals, exhibitions etc. Educational campaigns were made a priority through the Life Programme (Life no waste) about the three “R”s – Rethink, Re-use and Recycle. This promoted actions for the prevention of waste, including packaging waste. Through this programme there were TV commercials, radio commercials and information campaigns as well as educational material delivered in schools, at festivals and at exhibitions. Seminars were also given which were directed at the public, local authorities and the private sector. This represents an increase in the number of actions taken to prevent the formation of packaging waste compared to those described in the previous reporting period (2010-2012).

In the Czech Republic, a Waste Management Plan was adopted in November 2014. Part of this plan was binding and contained measures and policies supporting Article 4. The issue of prevention was also incorporated into the authorising decision, in which the Ministry of the Environment granted the packaging recovery organisation EKO-KOM (PRO EKO-KOM) permission to carry out activities related to compliance with take back and recovery schemes for packaging waste. PRO EKO-KOM systematically informs its clients, the producers of packaging, about waste prevention. Another important measure that contributes to the reduction of one-way packaging use and the production of packaging waste is that reusable packaging is not charged within the system of PRO EKO-KOM, presenting a financial incentive for production of reusable packaging.

In Denmark, a deposit system has been in place since the 1970’s for beers and carbonated soft drinks in refillable containers. Since 1998, there has been a tax on certain types of packaging to encourage re-use and encourage the substitution of more environmentally harmful materials with less environmentally harmful ones. Since 2007, a formalised cooperation agreement has existed between the Danish Environmental Protection Agency and Danish industry on packaging minimisation. One project is to develop guidelines for packaging producers and users to ensure they fulfil the essential requirements on minimisation.

In Estonia, a tax was implemented on packaged goods placed on the national market including domestic and imported packages (Packaging Excise Duty Act, RT I 1997, 5/6, 31; 2010, 28, 145).

In Finland, one of the key objectives of the National Waste Plan for 2016 is preventing the generation of waste, including packaging waste. In practice, the quantitative target for preventing the formation of packaging waste is regulated in the Government Decision (962/1997) of Packaging and Packaging Waste, section 5. The attainment of the
target is a duty of producers (professional packers of products and importers of packaged products) with a turnover exceeding €1 million. The Centre of Economics, Development, Traffic and the Environment for Pirkanmaa (later Pirkanmaa ELY-Centre), which acts as a national authority of producer responsibility, supervises attainment of the target. Additionally, a tax on beverage containers exists and aims to reduce the amount of one-way packaging.

In France, under Article R. 543-56 of the Code of the Environment, companies placing packaged products on the market have to financially contribute to or provide for the management of packaging waste. The companies Eco-packaging and Adelphe were approved by decree of 21 December 2010. These companies are implementing, over the period 2011 to 2016, the specifications of the sectors of household packaging annexed to the decree of the 12th of November 2010.

In Germany criteria for awarding the eco-label "Blauer Engel" (Blue Angel) for equipment for the production of carbonated water (soft drink makers) have been defined. Producers of such equipment can apply for the eco-label in the case that they comply with the requirements. In 2009, the Blue Angel was divided into four classes depending on whether a product primarily protects the climate, health, water or – most relevant to waste prevention - resources. The scheme has several product groups addressing waste prevention including returnable transit and primary packaging. In 2011, 11,500 products and services in 90 categories offered by 1,050 companies display the Blue Angel. The Blue Angel has been in use since 1978, and is considered to set the standard for environmentally conscious product design in Germany.

Greece adopted its National Waste Prevention Plan in December 2015. The plan identifies packaging as a priority waste stream where action should be taken towards reduction. Actions proposed include promotion and distribution of reusable packaging, voluntary agreements with sectors including catering, tourism and retail, and provision of business awards linked to enhanced performance in reduction of packaging waste.

The main national legislative act is Article 5 of the National Law- 2939/01. This foresees the possibility of setting up alternative management programs, which define the basic directions of waste management. One of the aims of these alternative management programs is the implementation of the principle of waste prevention. These programs, designed to promote and use any initiative taken towards prevention, are prepared by the Hellenic Recycling Agency in cooperation with economic operators, local authorities and other public authorities and organisations. These actions represent a notable change for Greece as their national waste prevention plan has been adopted since the last reporting period. Additionally, in the 2010-2012 period Greece reported that no

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23 Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2010-2012
measures to prevent the formation of packaging waste had been taken despite the existence of alternative management programmes.

In Hungary\(^\text{24}\), national legislation obliges all large companies to adopt individual waste management plans containing a separate chapter for packaging waste, including opportunities for waste prevention.

In Ireland\(^\text{25}\), the National Waste Prevention Programme developed and implemented by the Environmental Protection Agency has an overall objective of stabilising and, in the longer term reversing, the growth of waste generation across all waste streams. The programme has been active since 2004 and remains active in Ireland.\(^\text{26}\) Work on the development of a packaging waste prevention programme commenced in 2006 under the title “Prevent & Save”.\(^\text{27}\) Repak is the sole approved compliance scheme for the recovery of packaging waste in Ireland. The fee structure applicable to Repak members reflects the polluter pays principle and directly incentivises the minimisation and re-use of packaging. Major producers which opt for self-compliance are required to pay registration fees to local authorities which are related to the weight of packaging placed on the Irish market. In addition, in 2002 Ireland implemented a plastic bag charge.

Italy\(^\text{28}\), during the reporting period 2004-2006, reported that legislative decree No. 152/2006 provides for the incentivisation and promotion of at-source prevention regarding the quantity and hazard level in the production of packaging and packaging waste. The decree requires packaging producers and users to join the National Packaging Consortium (CONAI). Consortiums (‘consorzi di filiera’) are composed of packaging producers and users, and operators that recycle and recover packaging waste. They have been created in order to manage used packaging composed of specific materials, financing comes from membership fees and payments for their activities. Each consortium prepares a specific annual prevention programme, which has to be sent to the national packaging consortium CONAI. On the basis of these programmes CONAI prepares the annual ‘General programme of Prevention and Management of Packaging and Packaging Waste’, including measures on prevention and increasing the market

\(^{24}\) Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2010-2012  
\(^{25}\) Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2010-2012  
\(^{27}\) Preventandsave.ie, (2015). Prevent & Save - Repak’s website for packaging optimisation, minimisation & prevention! [online] Available at: http://www.preventandsave.ie . This website has been co-funded by Repak and the EPA with the support of the Department of Environment, Heritage and Local Government. It is part of Repak’s ‘Packaging Waste Prevention Programme’ which is a sub-group of the ‘National Waste Prevention Programme’. Repak’s Packaging Waste Prevention Programme aims to assist Irish businesses with positive and practical ways to reduce packaging and to promote those achievements to a wider audience.

\(^{28}\) Information from the Implementation Questionnaire for the 2004-2006 period, as referred back to in the Member State Implementation Questionnaire in 2010-2012
share of recyclable and reusable packaging. CONAI continues to operate in these respects in the time covered by this reporting period. 29

In Latvia, a tax on packaging is applied. This tax, which is levied according to the packaging weight, creates an incentive for reduction in quantity of packaging. Given that the tax rate is differentiated according to the type of packaging material, packagers are also encouraged to use materials that are more environmentally friendly and recyclable. During the reporting period 2013-2015 amendments to the Law on Natural Resources Tax were adopted which raised natural resources tax rates for goods packaging. The rate of natural resources tax applied to packaging made of wood, paper, cardboard, other natural fibres and bioplastics was increased by 10%, while the rate applied to packaging made from plastics was increased 32%. As such work to differentiate the rate of natural resources tax according to packaging type was continued in this reporting period. Whilst the overall approach is the same as that detailed in the 2010-2012 response, Latvia has raised taxes on packaging and targeted this raise at plastic packaging as a disincentive for its use and this presents a notable change.

In Lithuania, Article 3 of the Law on Waste Management requires waste managers and generators to take all possible and economically reasonable measures to reduce the quantities of waste, the negative effects on human health and the environment, to develop and introduce low-waste technologies, and to preserve natural resources. It requires manufacturers to make and place on the market durable or reusable products which can be recycled once they have reached the end of their useful life. Article 3 also lays out the priorities for management of packaging and packaging waste, the highest of which is the use of all possible preventative means to minimise packaging waste. This priority is mandatory for economic operators including suppliers of packaging materials, producers, importers and users of packaging.

Prevention of packaging waste is also supported by the application of the producer responsibility principle to the management of packaging waste, details of which are provided in Lithuania’s response to Question 2.3. The contributions paid by producers/importers and the pollution tax rates are linked to the weight of packaging released onto the market.

The National Waste Prevention Programme was approved in 2013. This included legislation regarding green government procurement with criteria applied to the public procurement of goods. The target percentage of procurements which meet this criteria increases year on year. Certain products are subject to criteria relevant to waste prevention in terms of packaging. Lithuania details requirements for the construction industry to reduce the amount of construction material and product packaging waste via return of packaging to the supplier, its recycling or reuse, and to reuse, recycle or otherwise utilise construction and demolition waste.

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29 Expra CONAI – Italy http://www.expra.eu/members-detail/conai/66 Date accessed: 21/06/2018
In **Luxembourg**, there is a prevention agreement with the association Varlorlux (Green Dot Luxembourg) regarding the “Eco-sac” (Eco bag) project. The eco-bag is a reusable bag replacing disposable carrier bags which helped to reduce the use of disposal bags from 70 million units in 2002 to 7.2 million units in 2012. In addition, the system “clever akafen” (“buy clever”) was started to promote eco-friendly products and the prevention of packaging waste. The system established cooperation between producers, retailers and the Luxembourg Union of Consumers (ULC).

In **Malta**, The National Waste Prevention Programme, integrated within the Waste Management Plan provides a number of measures to reduce and prevent the generation of packaging waste across sectors. It focusses on the food industry, retail and shopping sector and green public procurement. For instance, the eco-contribution tax on plastic carrier bags has contributed to a behavioural shift away from single use bags towards reusable fabric “bags for life”.

The national Waste Prevention Programme also emphasises the producer’s responsibility in minimising, through redesign, packaging material in order to lower packaging related waste as well as to favour products which may be refilled or subject to a deposit refund scheme. For instance, particular local companies have set up systems whereby consumers can return their containers or bottles for refilling or exchange them for gifts or vouchers to be used when buying other products.

The beverage industry and wine makers have systems in place for the collection of returnable and refillable plastic and glass bottles. Eco-friendly reusable bottles are collected, sterilised and refilled with water, wine or other beverages, over numerous cycles. Furthermore, a number of companies in Malta have embarked on collecting reusable wood pallets, which are prepared for reuse prior being made available again on the market.

Finally it is worth highlighting that through additional legislation (Section 3.1.2 of the “Waste Management Plan for the Maltese Islands – A resource management approach (2014-2020)”) Malta has made a commitment to study further options for prevention of packaging waste. This includes assessment for a future deposit-refund system.

In the **Netherlands**, as of January 2015, a new packaging management decree was implemented. Regulations for prevention are part of the decree. Every year producers and importers have to report on their activities and accomplishments to the government. The Netherlands details that notifications 2002/0163/NL, a draft decree laying down the rules for packaging and packaging waste, and 2010/0017/NL, a draft decree by the minister of housing, spatial planning and the environment amending the decree on the management of packaging, paper, and cardboard as regards the improvement of the rules on packaging, provide an in depth explanation.

In **Poland**, businesses that place packaging on the market containing hazardous substances are obliged to levy a deposit on such packaging, to take it back and ensure its recovery, including recycling, or disposal. Provisions for voluntary agreements are also in place under which businesses establish a system for collection and recovery, recycling or disposal of packaging waste containing hazardous substances. Such businesses are
exempted from the obligation to levy a deposit. In addition, there is an agreement from producers of composite packaging and businesses which place composite products on the market to collect composite packaging and ensure its recovery or recycling.

In Portugal, awareness raising on recovery of packaging waste was reported as the main tool to prevent the formation of waste, aimed at both the general population and economic operators. Portugal has further adopted a series of measures which have targeted lightweight plastic carrier bags and have reduced their usage “almost completely”. A consumer fee was introduced for bags with thickness less than 50 µm. Lightweight carrier bags are still used in Portugal but very minimally by consumers with preference given to reusable bags. Portugal last reported in the period 2007-2009, and the introduction of a fee on lightweight carrier bags is a notable change since that period.

In Romania, there are no specific programmes on packaging prevention. However, fiscal instruments to prevent packaging waste were introduced: Operators placing packaged products and/or packaging on the national market are required to pay a tax of RON 2/kg. The tax is paid on an annual basis to the Environment Fund if an operator does not meet the annual recovery target for packaging waste. For reusable packaging, the tax is paid only when such packaging is placed on the market for the first time to encourage the use of this kind of packaging. Since January 2009, operators placing bags made of non-biodegradable material on the national market have to pay a tax of RON 0.2 for such bags.

In Slovakia, according to Article 3 of the Act on Packaging, producers or distributors of packaged products are obliged to establish a prevention programme if the amount of packaging they put on the market exceeds 10 tonnes per year. The programme shall contain quantitative prevention measures, measures for achieving the objectives and control mechanisms for the verification of fulfilment of those objectives.

In Slovenia, the Decree on the Environmental Tax on the Generation of Packaging Waste (Official Gazette of the Republic of Slovenia Nos. 32/06, 65/06, 78/08, 19/10) provides, in Article 6, that the environmental tax is payable for all packaging put on the national market. Article 15 defines a five-year transition period (2006-2010) before a higher tax for plastic packaging made from vinyl chloride or other halogenated olefins is calculated. Since January 2011 packaging made of plastic is taxed at a higher rate than other types of packaging.

In Spain, there is a national programme to prevent formation of packaging waste as well as regionally focussed regimes. The State Waste Prevention Program develops the policy

30 Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2007-2009
of prevention of waste in Spain in accordance with current regulations. It aims to advance the goal of reducing the waste generated in 2020 by 10% compared to the weight of waste generated in 2010 (objective included in article 15 of Law 22/2011, of the 28th of July, on waste and contaminated soils). The state program describes the current situation of prevention in Spain, carries out an analysis of existing prevention measures and assesses their effectiveness. The program is configured around four strategic lines aimed at influencing the key elements of waste prevention:

- reducing the amount of waste;
- increasing reuse and lengthening of the useful life of products;
- reducing the amount of harmful substances in materials and products; and
- reducing the adverse impacts on human health and the environment, of the waste generated.

Within each strategic line, the products or sectors of activity in which priority action will be taken is identified, proposing effective prevention measures in accordance with the classification of Annex IV of the Waste Framework Directive. Certain example actions include revision of packaging regulations to reduce overpackaging, increasing the use of reusable packaging and making it easier to place recyclable packaging on the market. Such aims will be achieved with economic incentives. Additionally, research and development projects looking at eco-design will be promoted. Within the production and distribution phase voluntary agreements increasing the sale of bulk products and reduction of single use bags and containers will be promoted. In the consumption phase education and awareness campaigns emphasising the role of consumers will be promoted as well as subscription to voluntary agreements in the HoReCa sector.

Most Autonomous Communities (ACs) have approved Waste Management Plans or programmes which include specific measures to prevent packaging waste. Law 11/1997 of the 24th of April on packaging and packaging waste contained an additional provision whereby packers were obliged to establish business waste prevention programmes. Most ACs have also taken steps to foster Prevention Programmes in companies, e.g. by voluntary agreements or 'Minimisation Programmes'. Some ACs have also supported the development of Waste Prevention Plans at a local level. An example is the General Program of prevention and management of waste and resources of Catalonia (PRECAT20) which will be active in the field of prevention and waste management from 2013-2020 and includes targets for single use plastic bags with a decision in January 2016 to prohibit the free distribution of plastic bags. This response shows significant changes at a national level in Spain and in the ACs with respect to prevention of formation of packaging waste.

In Sweden, producers are responsible for packaging. The objective of the Swedish Ordinance (1994:1205) on producer responsibility for packaging is intended to keep packaging to the minimum required for safety and hygiene. Although overall standards have improved, the response states that it is hard to tell which exact measures have been taken.
In the United Kingdom, Producer Responsibility (Packaging Waste) Regulations require producers of packaging to ensure that a proportion of the packaging they handle is recovered and recycled. The cost to producers of packaging depends on the quantity handled. This gives a direct incentive to companies to ensure that their packaging is kept to the minimum amount necessary, which in turn prevents the generation of packaging waste. The UK has also implemented a number of voluntary responsibility deals whereby operators in a specific sector work to reduce the total amount of packaging used within that sector. The second Courtauld Commitment is a voluntary agreement between the UK Governments, food retailers and manufacturers, which began in 2010 and ended in December 2012. In October 2012, 2.3 million tonnes of waste were successfully 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%. Carbon savings associated with the reduction in avoidable household food waste amounted to around 930,000 tonnes CO₂ equivalent a year.

Conclusion:
All Member States (21) reported that they have taken measures to prevent packaging waste in 2013-2015. This is one more than in the 2010-2012 period as Greece now states that it has taken action (it adopted its National Waste Prevention Plan in 2015).

Greece is not the only Member State worth highlighting with respect to change since the last period. Whilst all other Member States responded “Yes” in answer to this question in the previous and current reporting periods some have since undertaken additional actions. This includes Portugal who introduced a charge on lightweight plastic carrier bags, Cyprus who focussed on increasing education and awareness, Latvia who increased taxes on certain packaging materials, and Spain who detail additional action at both the national level and in the Autonomous Communities.

Measures reported by the Member States mainly consisted of the implementation of national and local prevention plans; producer responsibility schemes; taxation measures (e.g. packaging taxes); information and awareness-raising on prevention of packaging waste and re-use of packaging; eco-design; and Action Plans for the key industries that the different environmental agencies regulate. Deposit return systems were detailed by a number of Member States.

With respect to good practice, there are a number of actions from a selection of Member States which are worth highlighting. Firstly, Croatia, Denmark, Malta and Poland all mentioned some forms of deposit return systems in their responses. These

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32 Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2007-2009
varied in how well established they are and what packaging is covered, in general they
target beverage containers but Poland referred to use of deposits for ensuring return
of packaging containing hazardous substances only. Malta states that producers may
levy a deposit on refillable containers, but that consultation is underway to develop a
national deposit return system. Denmark describes a deposit return system for beers
and carbonated soft drinks which has been in place since the 1970s. Other Member
States reported to have deposit return systems in place but provided no details.

A number of Member States have taxed packaging, these include Bulgaria, Latvia and
Denmark and Slovenia. Interestingly in Latvia and Denmark the rate of tax is levied
according to the type of packaging material encouraging the use of less
environmentally damaging materials. In Latvia, amendments to legislation made
during the 2013-2015 period increased the rate of tax by 10% on packaging made from
natural fibres e.g. cardboard whilst increasing the rate of tax by 32% on plastic
packaging. Slovenia have also taken measures to target specific types of packaging
and have introduced a higher tax for plastic packaging made from vinyl chloride which
is particularly important as incineration of vinyl chlorides and other halogenated
olefins has adverse effects.

Lithuania demonstrates good practice with a closed loop recycling initiative for
packaging from the construction sector whereby used packaging is returned to the
supplier.

The Brussels-Capital region of Belgium also has a number of initiatives which prevent
packaging waste, largely in the HoReCa sector, and are worth highlighting. A study has
been undertaken looking at establishing the argument for provision of jugs of tap
water across restaurants in Brussels (replacing plastic bottled water), work has been
undertaken to analyse requirements for successful reusable takeaway packaging and
support provided for reusable packaging projects such as Tiffin (2013-2014). In addition
there are aims to develop a reusable multi-pocket shopping bag which avoids mixing of
market bought food and would reduce the use of small lightweight plastic bags.

Finally, a number of Member States have introduced quantitative targets for
prevention and reduction of packaging waste. Finland has set a quantitative target
for preventing the formation of packaging waste, the attainment of which is the duty
of producers. Spain has a goal of reducing the waste generated in 2020 by 10% with
respect to the weight of waste generated in 2010. The Brussels-Capital region of
Belgium is participating in the European campaign “-100kg of waste” which aims to
reduce the municipal waste of each inhabitant by 100kg per annum. The United
Kingdom demonstrates good practice in setting of targets for reduction by linking
waste reduction to a carbon target. In 2007-2009 the United Kingdom reported that it
was 75% of the way towards the 10% carbon reduction target for packaging.
3.2 Measures to Encourage Re-use Systems

Question 2: Have measures been taken to encourage re-use systems in accordance with Article 5? If yes, describe the measures.

Article 5 states that Member States may encourage re-use systems of packaging, which can be re-used in an environmentally sound manner, in conformity with the Treaty establishing the European Economic Community.

Almost all reporting Member States (19) reported that they have taken measures to encourage re-use systems. Germany, Hungary, Ireland, Italy, Romania and the United Kingdom, which did not submit completed Implementation Questionnaires to the Commission for 2013-2015, had also taken measures to encourage re-use systems, based on their responses to the Implementation Questionnaires for the 2010-2012 or 2007-2009 reporting period.

In total, 19 Member States reported taking measures to encourage reuse systems in the 2013-15 reporting period, and 6 additional ones in the previous reports, with three Member States reporting not to have taken any such measures in 2013-15: France, Greece and the Netherlands.

Member State responses are summarised below:

Austria has made administrative simplifications concerning the recording and notification requirements of the relevant national legislation. The mandatory notifications can be realised collectively in form of a pool for operators, i.e. by associations/interest groups. An addition, and a change in the 2013-2015 reporting period, is that Austria is carrying out a study into the mass of reusable packaging that is filled for the first time, disposed of as waste or recycled over a calendar year.

In Belgium, at a national level the Interregional Cooperation Agreement favours re-use systems by exempting reusable packaging from take-back obligations.

Within the regions a variety of measures are in existence. In the Flemish Region, re-use is encouraged through subsidies to local authorities. The actions of the Plan for Environmentally Responsible Management of Household Waste 2008-2015 also stimulates re-use. A network of 31 recognised recycling centres and 124 sales outlets in Flanders keeps products from becoming waste, extending their usable lifespan. In 2014, 67,848 tonnes of recycled goods were collected, the target was 5kg per inhabitant. In the Brussels Capital Region, actions focus on reduction of disposable carrier bags by promoting reusable bags. The Walloon Region has adopted the Walloon Plan for Waste Horizon 2010 which promotes re-use and supports reuse in the Walloon Government’s Decree of the 17th of July 2008. In addition, statutory guidance on prevention of municipal waste includes actions for re-use of packaging which are subsidised by the government.
In **Bulgaria**, Article 40 of the Regulation on Packaging and Packaging Waste introduced a relief for manufacturers and importers of packaged goods when marketing multi-use packaging. Multi-use packaging is only regarded as being marketed the first time it is placed on the market, regardless of the number of times it is used.

In addition an instruction issued to packaging waste recovery organisations has amended the definitions of the terms “re-use” and “preparation for re-use”, in line with the Waste Framework Directive (2008/98/EC) and the Waste Management Act. This encourages the re-use of products or components of products that have become waste, so that they can be re-used without additional pre-processing. Further, and a notable change since the last reporting period, the preparation for re use of wooden pallets now counts towards achieving the national wooden packaging waste recovery and recycling targets.

In **Croatia**, manufacturers of products are obliged to introduce and use reusable packaging. Producers which place on the market returnable packaging of drinks and beverages pay a lower fee.

In **Cyprus**, no mandatory rules are in place, but awareness-raising measures were implemented using educational material concerning prevention, re-use, and recycling. Re-use is encouraged for beverage companies using glass bottles, cartons (for the distribution of products) and wooden pallets (for storage purposes).

In the **Czech Republic**, commercial premises larger than 200m² are required to offer beverages in reusable packaging if such packaging exists on the market. For selected types of returnable packaging, the levels of deposits were harmonised by means of Decree No. 116/2002 Coll. Reusable packaging is deemed to have been returned or recovered if at least 55%, by weight, of the packaging placed on the market or put into circulation anew is re-used.

In **Denmark**, since 1970, there has been a deposit system for beers and carbonated soft drinks in refillable containers. Since 1998, there has been a tax on certain types of packaging to encourage re-use.

In **Estonia**, a packaging tax was implemented as a fiscal measure under the Packaging Excise Duty Act. The tax is imposed on packaging of goods placed on the national market and includes domestic and imported packaging. The tax includes an incentive for reuse in that packaging can be exempted from the duty based on the percentage of recoverable material in the packaging.

In **Finland**, re-use systems of packaging are encouraged by economic instruments such as taxes and deposits. A “fixed rate” tax, regulated by the Excise Tax Act (1037/2004), of 0.51 euros/litre is required on drinks sold in retail packaging. There are some exceptions for imposing the tax, for example, there is no tax for reuse of recyclable packaging belonging to a deposit system. The deposit systems are approved and registered by the supervising authority (Pirkanmaa ELY-Centre).
In **Germany**[^34], a deposit and return obligation for distributors of certain drinks sold in disposable packaging has been established, this was introduced in 2003 and is still active.[^35] Reusable packaging is further promoted by the award of eco-labels.

**Greece** responded “No” to this question. However it noted that re-use systems are common for beverages (especially for beer and refreshment bottles). It is also noted that reusable packaging displays a comparative advantage over others as producers of such packaging contribute financially to alternative management systems when the packaging first enters the market. For reusable packaging, this fee is only paid the first time and this is a motive for the use of reusable packaging. Furthermore, the re-use of packaging waste is among the objectives of the National Waste Prevention Plan.

In **Hungary**[^36], a packaging tax “product charge” is paid by obliged companies for reusable packaging only when the packaging is put on the market for the first time. In general the product charge is paid on the basis of the mass of packaging, on a per kilo basis.[^37]

In **Ireland**[^38], re-use is specifically encouraged under the regulatory regime which provides that packaging destined for re-use shall not be taken into account for the purpose of determining major producer status. Excluding such packaging from the calculation of packaging placed on the market by producers provides an economic incentive to promote the re-use of packaging. The introduction of the environmental levy on plastic shopping bags in early 2002 has also strongly encouraged the use of reusable shopping bags. The latest data available (2012) indicated that the estimated per capita usage of plastic bags stood at 14 when compared to an estimated per capita usage of 328 before the levy was introduced. Re-use is also promoted and encouraged under the various initiatives of the National Waste Prevention Programme.

**Italy**[^39], during the reporting period 2004-2006, reported that re-use is one of the priorities of the overall action of the consortium system referred to in Legislative Decree No 152/2006. The consortiums (‘consorzi di filera’) aim to rationalise and organise the re-use of used packaging, and the collection, sorting and recovery of packaging waste. The General programme of Prevention and Management of Packaging and Packaging Waste.

[^34]: Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2010-2012
[^36]: Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2010-2012
[^37]: Valpak *A Quick Guide to Packaging Legislation in Hungary*  
https://www.valpak.co.uk/docs/default-source/international-compliance/hungary-packaging---07-09-2015bc40f0c0a5336c89be6ff0000348758.pdf?sfvrsn=2  
Date Accessed: 21/06/2018
[^38]: Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2010-2012
[^39]: Information from the Implementation Questionnaire for the 2004-2006 period, as referred back to in the Member State Implementation Questionnaire in 2010-2012
Waste drawn up by CONAI also includes measures related to increasing the share of reusable packaging compared to non-reusable packaging, and to improving the characteristics of packaging so that it lasts longer.\textsuperscript{40}

In \textbf{Latvia}, Article 18 of the Law on Packaging stipulates that a goods manufacturer using re-usable packaging is to establish a packaging deposit-and-return system. Application of the system is voluntary, and is aimed at glass bottles and plastic crates for storing bottles. In the 2013-2015 reporting period, as in the previous two, Latvian legislation states that a taxable person that sells or, in the pursuit of their economic activity, uses goods in re-usable packaging does not pay a tax for this packaging. During the 2010-2012 reporting period, the Ministry of the Environmental and Regional Development (VARAM) drew up a concept document on the application of a deposit-and-return system for drinks packaging.

In \textbf{Lithuania}, targets have been set for packaging collection and re-use. Producers/importers placing products in re-used packaging on the market are not subject to the targets of packaging waste management. In 2010, the Ministry of Environment conducted a study on reusable packaging development to analyse best practice in other EU Member States and assess the options for their adoption in Lithuania. The National Waste Prevention Programme takes the findings of this study into account. An amendment to the Law on the management of packaging and packaging waste that makes the charging of a deposit mandatory for disposable packaging was adopted in 2015. The mandatory deposit for disposable packaging provides an economic incentive for manufacturers (importers) to participate in a reusable glass packaging system for drinks. This 2015 amendment is a notable change in policy targeting reuse and recycling of packaging in Lithuania.

In \textbf{Luxembourg}, two successful projects for the re-use of packaging have been in place for some years: the Eco-bag project which promotes reusable bags and a project to encourage the use of reusable cups (e.g. at events). The eco-bag project works in collaboration with 85 retailing companies including the five major supermarket chains in Luxembourg. The project provides three “levels” of bag – a large eco bag with capacity of 34 litres, a small eco bag with capacity of 17 litres (both made of PP), and an “emergency” small eco-bag made of HDPE (40% recycled). The project encourages reuse of bags and eco bags can be replaced free of charge when damaged.

In \textbf{Malta}, producers can deduct the packaging material that is being re-used from calculations of the amount placed on the market. Other measures encouraging re-use systems have been consultation meetings and information campaigns. An addition to this in the 2013-2015 reporting period is that the government has been holding discussions on a proposal to introduce a ‘beverage container refund scheme’ for plastic bottles and metal containers.

\begin{flushright}
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The **Netherlands** reported that there are plans in 2016 and 2017 for a pilot trial in 80 municipalities to test new ways of collecting small plastic bottles and cans using different organisations such as churches, schools, canteens and sports clubs. The Netherlands aims to test new collection methods and gain information on the contributions of the relative organisations to packaging waste. Whilst this is an increase on action reported in the 2010-2012 period when the Netherlands responded negatively to this question, the action detailed does not seem to be directly linked to encouraging reuse.

In **Poland**, there is evidence of simplification of measures to encourage reuse via the introduction of a hierarchy for the design of packaging placed on the market, requiring producers to place packaging on the market that is designed and produced in such a way as to permit it:

- To be reused and subsequently recycled;
- At least to be recycled, if it is not possible to reuse it or;
- To be recovered in a way other than recycling, if it is not possible to recycle it.

In addition provisions have been introduced to allow the Minister for the Environment to conclude an agreement with businesses which market products in reusable individual packages in order to establish and maintain a system for keeping such reusable individual packages in circulation.

In **Portugal**, Order No 29-B/98 of the 15\textsuperscript{th} of January 1998 which promotes re-use is still in force. One of its aims is to commercialise reusable packaging for liquid foods. All distributors and sellers using single use packaging should also sell the same product in a reusable packaging to allow consumer choice. Targets for quantity of products in reusable packaging on the market have been set.

The same order also requires that liquids destined for immediate consumption in the HoReCa (Hotels, Restaurants and Cafes) sector must be either in reusable packaging, or part of a dedicated system which ensures the collection, sorting, transportation and recycling of the single use item. The Sociedade Ponto Verde (SPV) created the system Verdoreca *Green HoReCa - this is detailed further in the response to 2.3*). Most HoReCa outlets have chosen to join SPV instead of opting for reusable packaging.

Measures have also been taken with respect to carrier bags. The Resolution of the Assembly of the Republic No 32/2008, which is a Government recommendation, promotes the replacement of conventional plastic bags with reusable bags. Resolution of the Assembly of the Republic No 33/2008 promotes re-use of carrier bags and supermarkets have continued their voluntary schemes to promote the use of reusable carrier bags.
In **Romania**[^romania], economic operators, which produce and/or market products packaged in reusable packaging have to introduce a deposit system to ensure the re-use of the packaging.[^ro Roadmap]

**Slovakia** has introduced a deposit system for reusable beverage packaging as well as for non-reusable packaging.

In **Slovenia**, measures for returnable packaging are defined in Article 38 of the Decree on the Management of Packaging and Packaging Waste. Under Article 5 of the Decree on Environmental Tax on the Generation of Packaging Waste, no environmental tax is payable if goods are packaged in returnable packaging. For economic operators that are required to ensure they are in line with the waste packaging management requirement, the requirement does not apply to packaging used within a controlled returnable packaging cycle.

In **Spain**, most Autonomous Communities promote and authorise deposit and return systems that specifically target industrial packaging. In a limited number of regions, studies on the implementation of these systems for household waste have been carried out. Measures include voluntary agreements with the business sector and distributors, promotion of refillable packages, communication with producers to apply minimum packaging required based on standards in UN EN 1728, promotion of re-use of packaging in the hotel and restaurant industry, promotion of the elimination of existing legal barriers obstructing the use of secondary raw material for new products and the re-use or secondary use of packaging, as well as workshops and awareness campaigns. Quantitative objectives for reuse of beverage containers in the HoReCa sector (Hotels, Restaurants and Cafes) have been set in the 2008-2015 National Integrated Waste Plan. These are 60% reuse for bottled water, 80% for beer, 80% for soft drinks and 50% for wine with a target of 15% reuse of containers in consumer channels other than HoReCa in 2015. In the Autonomous Community of Ceuta, work has taken place to encourage reusable bags in preference to single-use non-biodegradable bags.

In **Sweden**, there’s a long-running deposit-refund system for beverage containers made of glass. This is used by some but not all breweries on a voluntary basis. Systems for metal cans and PET bottles also exist on a legally binding basis.

In the **United Kingdom**[^uk2007], the Producer Responsibility Obligations (Packaging Waste) Regulations create a direct financial incentive to re-use packaging. UK businesses are required to ensure that a proportion of the packaging they handle is recovered and recycled. However in calculating how much packaging they must ensure is recovered and

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[^romania]: Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2007-2009

[^ro Roadmap]: European Commission (2011) Roadmap for Romania

[^uk2007]: Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2007-2009
recycled producers can discount packaging that they have re-used. This creates a financial incentive for companies to use re-usable packaging. In addition, on behalf of the government, the Waste and Resources Action Programme (WRAP) continues various works to encourage the use of reusable packaging. For example, a directory of reusable packaging suppliers and distributors that provide solutions for the UK retail supply chain is promoted and maintained.

**Conclusion:**

In conclusion, based on the 2013-15 and previous reports, 25 Member States reported that they have taken measures to encourage reuse. Three Member States (France, Greece and the Netherlands) responded that they had not. However, despite responding “No”, Greece and the Netherlands have listed relevant measures taken to encourage reuse. Including these two Member States, a total of 27 Member States have taken measures to encourage reuse which is an increase from 26 in the previous reporting period.

The most prevalent measures introduced to encourage re-use systems were very similar to the ones used for packaging waste prevention (as discussed in 3.1): the use of deposit and return systems; taxation measures (e.g. reusable packaging only taxed the first time it is placed on the market, or exempted from taxation); obligations to offer products in reusable packaging if it exists; promotion of re-use within waste plans and as waste prevention measures; and information and awareness-raising measures.

The Netherlands detailed a pilot trial looking at collection of small plastic bottles and cans. In the previous reporting period no such measures were reported.

Some individual Member States have introduced additional measures since the last reporting period. Malta is holding discussions and looking at introducing a deposit return system for metal and plastic beverage containers. Similarly Lithuania made an amendment to its laws in 2015 such that the charging of a deposit is now mandatory for disposable packaging. Austria is carrying out a study into the mass of reusable packaging that is filled for the first time, disposed of as waste or recycled over a calendar year. This is a notable change since the 2010-2012 period and is interesting given the general data deficiency surrounding reusable packaging.

In terms of good practice, Portugal has required all distributors and sellers using single use packaging to sell the same product in a reusable container to allow consumer choice which may be a good measure to encourage reuse if applied well. In addition Portugal has targets for the quantity of products sold in reusable packaging on the Portuguese market, and is seemingly unique in dictating a market share for reusable packaging.

Spain has set quantitative objectives for beverage container reuse in the HoReCa sector of 60% for bottled water, 80% for beer, 80% for soft drinks and 50% for wine with an additional target of 15% reuse for containers in channels other than HoReCa in 2015. The targets set by Spain are ambitious and directed at a sector which utilises a large volume of packaging for beverage containers and so is a good example of encouraging reuse.
In terms of those Member States implementing taxation measures which favour the use of reusable packaging Finland demonstrates good practice. There is no tax applied for reuse of recycled packaging, a fixed rate of tax applies for packaging otherwise. A number of Member States, including Hungary and Latvia, applied similar measures.
3.3 Measures to Set up Return Systems

Question 3: Have the necessary measures been taken pursuant to Article 7 to set up systems for the return and/or collection of used packaging and/or packaging waste and systems for the re-use or recovery, including recycling of packaging and/or collected packaging waste? If no, state why. If yes, give details of the measures taken and of the systems which have been set up.

Article 7 states that Member States should take the necessary measures to ensure that systems are set up to provide for the return and/or collection of used packaging and/or packaging waste and the re-use or recovery including recycling of the packaging and/or packaging waste collected. It also states that these measures should form part of a policy.

All Member States (21) which submitted completed Implementation Questionnaires to the Commission for 2013-2015 have reported that they have taken measures to set up return and collection systems.

Based on the completed Implementation Questionnaires for the 2010-2012 reporting period, France, Germany, Greece, Hungary, Ireland and Italy have also implemented measures to set up return and collection systems. Romania and the United Kingdom reported in the 2007-2009 period that measures had been set up.

In summary, all 28 Member States at some point reported to have taken measures to set up systems for the return and collection of packaging and packaging waste.

Member State responses are summarised below:

In Austria, a take-back obligation for returnable packaging for producers and distributors has been established. Alternatively, participation in a collection and recovery system is possible.

In Belgium, collection and recovery systems have to be authorised by the Interregional Packaging Committee (CIE). The collection and recovery systems are responsible for achieving the recycling and recovery targets of their members. Currently, two systems are operating (Fost Plus and Val-I-Pac). The CIE provides self-declaration documents for businesses to report their take-back obligations.

In Bulgaria, packaging waste recovery permits have been issued to four organisations in 2015, which are responsible for the collection and recovery of the waste generated by their members (companies). Permits were revoked from Repak AD and Ekoresurs Bulgaria AD for failure to achieve the set recycling targets. Packaging waste recovery organisations have developed systems for the return and collection of used packaging and packaging waste including systems for the reuse or recovery and recycling of the packaging waste collected.

In Croatia, there are three different fees related to waste packaging which are paid by packaging manufacturers or importers of packaged products. These are as follows:
- a 'disposal fee' which depends on the type of packaging material and the units of product placed on the market. Its purpose is to cover the packaging waste management costs (collection, storage, transport and recovery);
- a 'return fee' which is for single use packaging of drinks and beverages (acting as a deposit system). The fee circulates through the product distribution chain; and
- an 'incentive fee' for drinks and beverage packaging whose purpose is to encourage the use of returnable packaging. The fee is only paid by producers introducing non-returnable packaging onto the market.

An economic operator may be exempted from paying the environmental tax on packaging if they ensure that their own deposit and return system achieves a rate of return above 50% of the packaging introduced into the market.

In Cyprus, the collective management scheme for packaging waste (Green Dot Cyprus) expanded its operations, and in 2015 covered 82% of the population with 926 registered producers. The system covers plastic, metals, tetrapak, glass and paper/cardboard. There is a system set up for household collection, transfer to a recycling facility and recycling. In 2014 a specific programme for the collection of packaging waste of pesticides was set up and in 2015 96 bins in 55 collection and sale points had been added. The specific programme for collection of pesticide packaging waste is a change since the last period. Furthermore, the number of registered producers involved in the collective management scheme for packaging waste has increased from 831 in 2010-2012 to 926 in the current period.

In the Czech Republic, the obligation of packaging waste return and recovery is laid down in the Packaging Act. No. 477/2001 Coll. Companies may be authorised to operate compliance schemes for the return and recovery of packaging waste ("authorised packaging companies"). Authorised packaging companies are obliged to provide services to all economic operators placing packaging on the market regardless if goods are domestic or imported. Currently, there is one authorised packaging company (EKO-KOM a.s.).

In Denmark, most packaging waste is collected for recycling via municipal collection schemes, typically bring-banks or kerbside collection. All local authorities must establish collection schemes for the recycling of glass, metal, plastic and paper/cardboard packaging waste from households. For enterprises, local authorities assign packaging waste either to a specific treatment facility or recycling. Since 2002, disposable packaging for beer and carbonated soft drinks has been collected via a deposit and return system (Dansk Retursystem). Between 2007 and 2009 the system was extended further so that packaging for water, non-carbonated mineral water, and some alcoholic drinks were included.

In Estonia, the Packaging Act states that producers may transfer their obligation for collection and recovery to accredited recovery organisations operating on a non-profit basis. A recovery organisation must inform the public and consumers about the rules and requirements for returning packaging and packaging waste. Between 2013 and 2015 there were four accredited recovery organisations in operation. One recovery organisation covered plastic, metal and glass including reusable containers for
beverages. Three recovery organisations were active in the container-based collection scheme covering transport packaging, bulk packaging and sales packaging.

Over the reporting period, there has been an increase of around 15% in the number of packaging companies joining the deposit system. In the container based collection system, over the three recovery organisations, there was an average 5% increase in the number of packaging companies joining the scheme, which covers transport packaging, bulk packaging and sales packaging. The growth rate recorded for packaging companies joining the deposit system is higher than that experienced in the previous reporting period. In 2010-2012 the rate of increase of companies joining the deposit system was 6%.

In **Finland** producer responsibility (regulated by the Waste Act, Chapter 6) obliges producers to organise the collection, re-use, recovery, suitable treatment or disposal of their products and wastes derived from them, and to cover the related costs. The attainment of recovery targets is also their obligation. The producers may pool their responsibilities by joining a producer organisation to fulfil their obligations. Each packaging material has its own producer organisation. The producer organisations collect recovery fees from the producers to cover the costs of the recovery system. The fee level is dependent on the packaging material. The producer is required to arrange reception points for discarded products so as to facilitate free and easy collection of products.

In **France**44, different obligations are in place for household and industrial packaging. For household packaging, the marketer of packaged products has to contribute to or provide for the management of all packaging waste from households. This can be done through individual management systems or authorised organisations such as Eco-Emballages and Adelphe. For industrial packaging, Decree No. 94-609 of 13 July 1994 states that it is the holder of the packaging waste’s obligation to re-use, recycle, or obtain reusable materials or energy from the waste.

In **Germany**45, the economic operator introducing packaging onto the market is obliged to financially support a collection and recovery system for packaging and packaging waste of households and similar sources (the dual waste management system). For wholesale trade and industry, there are a number of waste management companies specialising in return, collection and recovery of transport packaging. Further, there are nationwide companies specialising in collection and recovery of specific types of packaging. Disposable drinks packaging is subject to a nationwide deposit-return-recovery system (die Deutsche Pfandsystem GmbH (DPG)).

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44 Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2010-2012
45 Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2010-2012
In **Greece**, measures have been taken to set up return systems. Under the provisions of Law 2939/2001, which incorporates the Packaging and Packaging Waste Directive into national law, extended producer responsibility schemes are established which organise alternative management of packaging and packaging waste. There are four approved systems for the management of packaging and packaging waste.

In **Hungary**46, companies which place packaged goods on the Hungarian market (“obliged companies”) are required to provide collection and recovery schemes. They may fulfil collection and recovery duties individually or through an organisation. Decree 94/2002 established “collecting recovery organisations” (CROs or coordinating organisations) which obliged companies may join. Both systems (product charge and “recovery -license- fee”) run in parallel and are controlled by the authorities.47

The organisations collaborate with municipalities, which are required only to undertake normal waste collection. However municipalities have the right to introduce selective collection in their region, and this has been done where the collecting recovery organisation pays for the selectively collected material.

In **Ireland**48, all local authorities have provided facilities where householders may deposit specified packaging waste for recycling. In 2010, 82,908 tonnes of household waste was collected from 1,922 sites, in 2011, these figures were 82,149 tonnes and 1,891 sites. Local authorities have also established larger civic amenity sites where citizens may deposit a greater range of household waste for recycling. 107 civic amenity sites collected 141,235 tonnes in 2011. The regulations also require packaging producers to separate specified packaging waste arising on their premises and ensure that it is collected for recovery by authorised operators.49

**Italy**50, during the reporting period 2004-2006, reported that Article 22 of Law 152/2006 allows for producers to meet their recycling and recovery objectives independently or through associations, through consortiums (“consorzi di filera”), or through the creation of deposit systems (“Sistema cauzionale”). CONAI defines, in collaboration with regions and public administrations, the organisation of integrated systems of collection, sorting and transportation of materials to collection and disposal centres. It also defines, again in collaboration with public administrations, the conditions for producers to take-back

46 Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2010-2012
48 Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2010-2012
50 Information from the Implementation Questionnaire for the 2004-2006 period, as referred back to in the Member State Implementation Questionnaire in 2010-2012
waste collected for recycling. In December 2004, CONAI forged an agreement with the National Association of Municipalities (ANCI) that establishes how packaging waste should be collected for recycling or recovery.\(^\text{51}\)

In Latvia, economic operators may be exempt from paying the environmental tax on packaging if they ensure implementation of provisions on the recovery of packaging waste contained in environmental protection legislation and fulfil one of the following conditions:

1) having established and applied a packaging waste management system and having concluded a contract with the Latvian Environmental Protection Fund; or

2) having concluded a contract with the packaging manager on participation in the packaging waste management system.

Exemptions from payment of this tax were granted at the end of the reporting period to five registered traders. During the reporting period, resources obtained from the European Union Cohesion Fund were used to establish infrastructure for separate waste collection, with the aim of developing packaging waste deposit and return systems and re-use and recycling systems.

In Lithuania, the Law on Waste Management sets out responsibilities for economic operators (producers, importers and waste managers) as well as public authorities in the development of a system for management of waste, including packaging waste. For packaging waste generated in businesses and organisations, the responsibility for collection, sorting and transfer to waste managers rests with the waste holder. Producers/importers placing packaged goods on the market must either meet targets for the recovery and recycling of these goods or pay the relevant tax. Municipalities have to ensure availability of waste sorting facilities and suitable methods for collection of packaging waste in both urban areas and villages.

Lithuania stated that the system described above failed to ensure the financing of sorted collection of municipal waste by producers/importers, and due to this amendments to the relevant national legislation were made. These amendments to the Law on the Management of Packaging and Packaging Waste and the Law on Waste Management, established new requirements for the organisation of packaging waste management, and entered into force on the 1\(^\text{st}\) of January 2013. Packaging producers and importers can now choose how they will fulfil their obligations: either individually or collectively. Producers and importers may manage waste themselves or outsource its management to an authorised waste manager. Where packaged products are transferred to another person, the management of packaging waste in the municipal and non-municipal waste streams is to be organised collectively, i.e. by becoming a member of a producer and importer organisation and charging it with organising the management of packaging waste.

waste, or by charging it with organising the management of packaging waste on a contractual basis without becoming a member.

During the 2013-2015 reporting period funding under the product and packaging waste management programme was used to purchase waste collection containers for 20 municipalities in 2015, and 25 in 2014.

In Luxembourg, the Green Dot system is in place and an agreement with the association Valorlux (the authorised waste management association for recovery and recycling of household and similar packaging) was established for the collection of household and similar packaging.

In Malta, in order to encourage separate collection and recycling/recovery of packaging waste, the Eco- Contribution tax was launched. When placing packaged goods on the Maltese market, the producer or importer has to pay a fee as an eco-contribution to balance for the negative environmental impact these products and their packaging might generate. In addition, under national legislation, the producer of the packaging or authorised packaging waste recovery schemes acting on behalf of producers are responsible for setting up the necessary collection systems for the collection of packaging waste. The aim is to recover and recycle a percentage of packaging waste based on the amount of packaging placed on the market. Packaging is mainly collected via kerbside collection for dry recyclables, provision of bring-in sites across Malta and Gozo, and directly from commercial and industrial entities which are members of the scheme.

In the Netherlands, according to the Decree on Packaging Management, it is mandatory for producers and importers to create a system for the withdrawal and/or collection of used packaging and/or packaging waste. The relevant notifications are 2002/0163/NL, which is a draft decree laying down rules for packaging and packaging waste (2014 Packaging Management Decree) and 2010/0017/NL, which is a draft decree by the Minister of Housing, Spatial Planning and the Environment amending the Decree on the Management of Packaging, Paper and Cardboard as regards the improvement of the rules on packaging. These notifications provide more detail on the measures in place to set up return systems nationally.

In Poland, retailers and wholesalers are obliged to take-back reusable packaging of products in their product ranges. Manufacturers of products using such packaging are obliged to take back the reusable packaging collected by the traders. Retail and wholesale outlets with a surface area exceeding 2,000m² are obliged to collect packaging waste separately. Recovery and recycling rates for packaging waste are set for businesses which place products on the market in packaging. These may be achieved with the help of waste recovery organisations, which are open-membership entities organising the collection and recovery of packaging waste.

Furthermore, the 1996 Act on the maintenance of cleanliness and order in municipalities has been updated. This update was published in the Journal of Laws in 2016 and delegates the responsibility for organising selective collection of municipal waste to municipalities. It includes packaging waste and requires collections comprise of at least
the following types: paper, metal, plastic, glass and composite packaging as well as biodegradable municipal waste including biodegradable packaging waste.

**Portugal**, reported that efforts were made to provide the necessary infrastructure for the selective collection and sorting of packaging waste for subsequent recycling. In 2015 Portugal reported the numbers of containers for collecting recycling detailed in Table 3-1:

**Table 3-1: Recycling Infrastructure in Portugal, 2015**

<table>
<thead>
<tr>
<th>Recycling Infrastructure</th>
<th>Materials Collected</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Green Container</strong></td>
<td>Glass packaging</td>
<td>50,106</td>
</tr>
<tr>
<td><strong>Blue Container</strong></td>
<td>Paper and cardboard packaging</td>
<td>45,198</td>
</tr>
<tr>
<td><strong>Yellow Container</strong></td>
<td>Plastic and metal packaging</td>
<td>44,702</td>
</tr>
<tr>
<td><strong>Ecopontos (Eco-points)</strong></td>
<td>Locations with all three containers</td>
<td>42,580</td>
</tr>
<tr>
<td><strong>Eco-centres</strong></td>
<td>N/A</td>
<td>213</td>
</tr>
<tr>
<td><strong>Sorting stations</strong></td>
<td>N/A</td>
<td>34</td>
</tr>
<tr>
<td><strong>Transfer stations</strong></td>
<td>N/A</td>
<td>94</td>
</tr>
<tr>
<td><strong>Mechanical/biological</strong></td>
<td>N/A</td>
<td>24</td>
</tr>
<tr>
<td><strong>treatment stations</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

There is also a door-to-door collection system in some municipalities in the country. The only material that is not collected door to door is glass.

Portugal also has measures which target return in the HoReCa sector. The Verdoreca (Green HoReCa) system was developed with the objective of providing the HoReCa sector with the possibility of selling drinks destined for immediate consumption in non-reusable packaging. The Verdoreca system, in addition to doing to above, has attempted to increase the quantity and quality of the packaging waste sent for recycling in this sector, leading establishments to adequately sort waste packaging of a number of materials in addition to the existing recycling of glass. The rate of uptake from cafes, restaurants, hotels and similar establishments was around 79% by the end of 2015, with more than 66,000 establishments engaged. This was not detailed in the previous reporting period and thus presents a notable change.

Finally, Portugal provides mechanism for recycling of medical packaging through pharmacies and veterinary practices, the system is provided by Valormed.
In **Romania**\(^5^2\), measures have been put in place to set up return systems. Producers placing packaged products and/or packaging on the national market are obliged to achieve the minimum recovery and recycling targets or to join one of the authorised Recovery Organisations for packaging waste (Eco-Rom Ambalaje, Intersemat, Ecologic 3R, Sota Grup 21, Eco-X, Eco Pack Management, and Respo Waste). The Green Dot system of packaging waste management was introduced to Romania with EcoRom Ambalaje. In 2009, there were 885 officially registered packaging companies (ReTECH 2009). The compliance schemes are held responsible for establishing partnerships with local authorities, sanitation and transportation companies, as well as companies specialised in packaging waste recycling.

In **Slovakia**, a non-governmental recycling fund is in operation financially supporting the collection, recovery and treatment of waste including packaging waste (metal, glass, plastic and paper).\(^5^3\) Producers and importers are obliged to pay a fee to the recycling fund. A system of authorised organisations has been established to collect, recover and recycle packaging waste for their clients.

In **Slovenia**, measures for return and/or collection and of re-use or recovery of packaging waste are set out in the Decree on Management of Packaging and Packaging Waste. The requirements address producers, distributors, final users, packagers, importers, traders and packaging waste management companies. The provisions apply to all packaging placed on the market and to all packaging waste generated. Packaging waste management companies may operate with an environmental permit. They must comply with the requirements set out. Five packaging waste management companies have obtained an environmental permit for the management of packaging waste, these are Slopak, Interseroh, Unirec, Surovina and Recikel.

In **Spain**, Law 11/1997 (Article 6) of the 24\(^{th}\) of April on packaging and packaging waste establishes the obligation for packagers to establish a deposit, return and recovery system. However, Article 7 states that agents may be exempt from this obligation if they participate in an integrated system for the management of used packaging and packaging waste deriving from the products they sell. These integrated systems are based on regular collection of used packaging and packaging waste from households and surrounding areas, and they must be authorised by the competent bodies of the autonomous communities in which they are implemented.

All Autonomous Communities have authorised collective compliance schemes for the return and management of household packaging waste (Ecoembes, Ecovidrio), medicines packaging waste (Sigre) and for packaging waste from phyto-sanitary products (Sigfito).

\(^{52}\) Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2007-2009

\(^{53}\) It is worth noting that the Slovakian recycling fund is no longer active, this has been the case since the 31\(^{st}\) of December 2016 which is outside the scope of the reporting period.
Additional measures have been taken in the autonomous communities and in the region of Catalonia. The Catalonia waste agency has supported a pilot scheme for a local level deposit return system with the aim of evaluating the economic and environmental impact of a deposit on single use domestic packaging. For industrial packaging in Catalonia, the number of packaging companies voluntarily implementing deposit return systems has been increasing.

In Sweden, national legislation obliges packaging producers to ensure that there are suitable collection systems for their packaging. To this end, industry and trade have joined forces and established materials companies. These organisations have organised the collection of packaging by setting up around 6,000 recycling sites throughout Sweden where used packaging may be deposited. The collection system is funded with the help of packaging fees paid by producers, i.e. companies that import goods, fill packaging or sell items. The collection of packaging is funded also by revenue obtained from the sale of packaging material for recycling.

In addition to recycling stations, packaging is also collected in the vicinity of residential buildings, especially from multi-dwelling properties. Thirty or so municipalities also collect packaging waste from single-dwelling houses. This type of collection is partly funded from packaging fees.

In the United Kingdom, different collection systems exist for packaging waste provided by local authorities, waste management companies and compliance schemes. Local authorities may choose the collection system and contract with waste management companies and compliance schemes providing that service. Funding is available from producers through the Producer Responsibility Obligations (Packaging Waste) Regulations. The Packaging waste Recovery Notes (PRN) system provides an incentive for producers to collect their own packaging waste. This reduces the financial burden on them as they can then exchange the packaging waste for PRNs from the reprocessor of the packaging waste (e.g. retailers are segregating cardboard and shrink wrap and sending this for recovery and recycling). Zero Waste Scotland, on behalf of the Scottish Government, ran two deposit return and six reverse vending system pilots across a range of venues.

**Conclusion:**

*Based on the 2013-15 and earlier reports, all Member States (28) reported that they have taken some measures to set up return systems.*

*As outlined in their responses, in most Member States producers are generally obliged to take-back packaging waste and establish their own take-back systems or to fulfil*

54 Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2007-2009
their obligations by participating in a return system covering the return, collection, re-use, recycling or other recovery of packaging waste. Some Member States have also reported that they have established municipal/public schemes for the return of packaging and packaging waste.

When comparing to the previous reporting period, Poland has made notable changes with respect to return systems via changes to legislation around municipal collections. Municipalities are responsible for organising the selective collection of municipal waste, including packaging waste. The legislation was updated in 2016 and presents an improvement in the measures taken in Poland to collect packaging waste. Meanwhile, Cyprus has set up a specific programme for the collection of packaging waste of pesticides since the last reporting period, and in 2015 added 96 bins in 55 collection and sale points. Finally, Estonia has seen growth in the number of companies joining the deposit return system of 15% in the reporting period.

It is worth noting that the types of measures described in Member State responses were very varied. Whilst some Member States described fees charged within the packaging waste system, others gave a detailed description of the logistics of packaging waste collection. As such, comparison across Member States, and identification of good practice is challenging.

Therefore, instead of identifying a few cases of good practice, it is worth discussing a number of approaches which qualify as good practice. In Croatia, a fee system is in place comprised of three types of fee. These are 'disposal fees' which vary depending on the type of packaging material, 'return fees' for single use packaging of drinks, and an 'incentive fee' whose purpose is to encourage the use of returnable packaging. The 'return fee' is only paid by those producers introducing non-returnable packaging onto the market. Similarly in Latvia, economic operators may be exempt from paying the environmental tax on packaging if they ensure implementation of provisions on the recovery of packaging waste in the environmental protection legislation. The Lithuanian system also operates in a similar way where producers and importers must either meet targets for recovery and recycling or pay the relevant tax. All three of these Member States show examples of financial incentives to set up return systems.

Austria stated that a take back obligation for returnable packaging for producers and distributors has been established. Take back obligations are seen as good practice, and similar measures have been applied in other Member States. Producer responsibility schemes in Member States like Greece and Finland function in a similar way.

Denmark detailed the role of local authorities and return facilities, but also discussed their deposit return system which was extended between 2007-2009 to cover water and some alcoholic drinks. A number of other Member States have detailed their deposit return systems in response to other questions, namely 1, 2 and 9 (as summarised in sections 3.1, 3.2 and 3.9).

Finally, Portugal has introduced measures which target the HoReCa sector and which give vendors the option of offering products in reusable packaging (as described in Section 3.2), or joining a collection and return system which allows them to use single
use packaging on the basis that it will be collected and recycled or recovered. This has led to a high rate of uptake of 79% of establishments at the end of 2015 of the ‘Verdoreca’ system.

3.4 Recovery and Recycling Targets and Method Used to Obtain Data

**Question 4:** With regard to achievement of the recovery and recycling targets referred to in Article 6, please fill in and attach the formats adopted pursuant to Article 12 (3) indicating the method used to obtain data.

**Article 12 (3)** states that in order to harmonise the characteristics and presentation of the data produced and to make the data of the Member States compatible, Member States should provide the Commission with their available data in formats which shall be adopted on the basis of Annex I and II, in accordance with the regulatory procedure referred to in Article 21(2).

For the majority of Member States there were no data attachments in formats adopted on the basis of Annex I and II, in accordance with the regulatory procedure referred to in Article 21(2). The exceptions were Poland, Portugal and Slovakia who submitted attachments on the basis of Annex I and II and additional documents detailing the method used to obtain the data.

**All other Member States (25)** referred to data submitted on an annual basis to the Commission, which was obtained from Eurostat.56 Relevant data for all 28 Member States, including France, Germany, Hungary, Ireland, Italy, Romania and the United Kingdom which did not submit Implementation Questionnaires in 2013-2015, can be found in 4.0 of this report.

Bulgaria, Croatia, Cyprus, Estonia, Greece, Hungary, Italy and the United Kingdom also provided information on applied methods to obtain the statistical data.

**Member State responses are summarised below:**

In Bulgaria, the national Environment Executive Agency obtains information on entities placing packaged goods on the market from the National Statistical Institute (NSI). The national Customs Agency provides information to the NSI on packaged goods arriving from inside and outside the EU and those intended for export to other Member States. Processing undertakings submit packaging waste recycling and recovery data to the

Environment Executive Agency. The Agency then verifies and analyses the information it has received.

In **Croatia**, the Ordinance on Packaging and Packaging Waste states that any producer or importer of packaging products who places them on the market has to submit reports periodically to the Environmental Protection and Energy Efficiency Fund. The Environmental Pollution Register also contains data about generation, transport, recovery and disposal of waste on a national scale.

In **Cyprus**, data is requested yearly from various sources. These are as follows:

1) Green Dot Cyprus (GDC) is the collective management scheme for packaging waste and provides data on the quantities of packaging placed on the market by its members/producers and the quantities recycled;
2) responsible producers that are not members of GDC;
3) waste management facilities (recycling/recovery/export);
4) the Environment Department’s (DoE) export data base (EDB); and
5) data from tender documents.

In **Estonia** three sources were used to obtain the data communicated to the Commission:

1) waste reporting (quantities of packaging waste collected separately and sorted, quantities of mixed municipal waste in Estonia);
2) a study titled "A Study of the composition of mixed municipal waste, separately collected paper and packaging waste and waste electrical and electronic equipment generated in Estonia" (2013); and
3) assessments from waste management companies (a break-down of hazardous packaging waste by packaging material).

In **Greece**, data used comes from the following sources:

1) the annual reports submitted by the approved systems for alternative management of packaging waste;
2) data provided by sectorial associations such as Federation of Greek Industries Paper (SE.VI.CHA.), Association of Plastic and YIOULA Glassworks, Hellenic Union of Aluminium and Union of Steel Industries;
3) data on exports of packaging waste is provided by the Ministry of Environment, Energy and Climate Change which is the competent authority for exports of packaging waste; and
4) cross-checking of the data using the sector studies of packaging performed by business services groups.
In Hungary\textsuperscript{57} data gathering was based on the following sources (percentages indicate the ratio of the covered data):

2) Coordinating Organisations (80%);
3) Producers, with self-compliance (3%);
4) Exemption given by law for small shops (less than 200 kg plastic and 500 kg paper as packaging yearly) (1.9%); and
5) The Hungarian Customs Authority (payment of product charge only, no membership yet in the organisations) (11.7%).

In Italy\textsuperscript{58} the main data source for estimating the quantities of packaging placed on the market in Italy, net of declared exports and broken down by material, is the “CONAI (National Packaging Consortium) environmental contribution”. The environmental contribution data are supplemented and validated by ISPRA (National Institute for Environmental Protection and Research) through a number of additional assessments on, for example: possible evasion/avoidance; unsuccessful requests for exemptions for the export of filled packaging; possible errors in interpreting the scope of the contribution; and possible errors in consortium members' declarations. For the other indicators requested, ISPRA validated the data by cross-referencing different information flows, such as sector studies, MUDs (single declaration forms), processed data on the separate collection of waste (obtained from the replies of public and private bodies to dedicated questionnaires drawn up by the Agency) and targeted surveys of plants.

In Poland, data is collected pursuant to the Act of the 11\textsuperscript{th} of May 2001 on the obligations of businesses regarding the management of waste and on product charges. Since January 2007, businesses that market products in packaging have been using model forms that follow the formats laid down in Commission Decision 2005/270/EC to supply information on recovery and recycling rates.

In Portugal, quantity of packaging put on the market was estimated from declarations from packers/fillers in the Green Dot compliance system (Sociedade Ponto Verde) in 2014. This was applied for all packaging other than glass. For glass the calculation was more complex and involved formulas looking at indirect consumption and apparent consumption. To estimate figures for recycling and recovery Portugal used information from the green dot company and the agency electronic platform (Integrated Map of Waste Register – MIRR). It is possible to separate packaging in this list as the information is given in the European List of Waste format.

In Slovakia, packaging waste data processing was carried out in accordance with Act 119/2010 on packaging and on amendment of act 223/2001 coll. on waste. Keeping

\textsuperscript{57} Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2010-2012

\textsuperscript{58} Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2010-2012
records and reporting is a collective responsibility through authorised organisations. The data for the report for the year 2014 is compiled on the basis of data reported by obligated persons and twelve authorised organisations established by obligated persons in compliance with Section 8 of the Act on Packaging. In 2014, the following registered authorised organisations were operating in the Slovak Republic:

- Envi-Pak, a. s., Galvaního 7/B, 821 04 Bratislava
- Limit Recycling Slovakia, a. s., Miletičová 23, 821 09 Bratislava
- Sewa, a. s., Račianska 71, 831 02 Bratislava
- Natur-Pack, a. s., Ružová dolina 6, 821 08 Bratislava
- Envi-Rea, a. s., Pri celulózke 1374, 010 01 Žilina
- Etalux - Združenie výrobkov a dodávateľov svetelnej techniky (Association of lighting equipment producers and suppliers), Turecká 36, 940 23 Nové Zámky
- Slovmas, a. s., Homolova 12, 841 02 Bratislava
- Eco System, s. r. o., Údernícka 3, 851 01 Bratislava
- Envi-Rek, a. s., Ružová dolina 8, 821 09 Bratislava
- Nowas, s. r. o., Račianska 66, 831 02 Bratislava
- E-cycling s. r. o., Robotnícka 10, 974 01 Banská Bystrica
- ESP Enviro Service, s. r. o., Juhoslovanská 3, 040 13 Košice

Authorised organisations keep records of packaging put on the market and of the fulfilment of binding limits for packaging waste recovery and recycling, and report summarised data from the records to the Ministry of the Environment of the Slovak Republic.

Determination of the amount of packaging waste is based on the amount of packaging put on the market in the Slovak Republic in 2013. In accordance with the Act on Packaging, the amount of packaging put on the market also includes the amount of reusable packaging, which were put on the market or into rotation. The amount of reusable packaging is accounted for once only.

The amount of recovered and recycled packaging waste was calculated on the basis of data reported by obligated persons and eleven authorised organisations. The total amount of recovered packaging waste consists of the amount of recycled packaging waste and the amount of packaging recovered.

In the United Kingdom, the estimates for the amount of packaging flowing onto the UK market and ultimately into the UK waste stream have been made by Defra following discussion with the main packaging Material Organisations (MOs), key industry parties and the Environment Agencies within the UK. This data is then cross-checked with the sales data obtained from major retailers and from various market research reports, plus any market analysis undertaken by the Waste and Resources Action Programme (WRAP), a government sponsored delivery body. Recovery and recycling data has been compiled.

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59 Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2007-2009
on the basis of information that accredited reprocessors and exporters are required to submit to the Environment Agency, the Scottish Environment Protection Agency (SEPA) and the Northern Ireland Environment Agency (NIEA) (collectively referred to as the “Agencies”), under the Producer Responsibility Obligations (Packaging Waste) Regulations 2007 (the “Regulations”) via the online National Packaging Waste database (NPWD). Under the UK Regulations the amount of packaging waste recovered in the form of energy is not identified by packaging material. However, the Agencies estimate that about 40% of the packaging waste recovered in the form of energy was plastic packaging waste and the remaining 60% was paper packaging waste.

**Conclusion:**

*Only a small number of data attachments in formats adopted on the basis of Annex I and II, in accordance with the regulatory procedure referred to in Article 21(2) were received. These were from Poland, Portugal and Slovakia. Data attachments were not received for the remaining Member States. Data for all of the Member States (28) covering the reporting period was obtained from Eurostat.*

*Bulgaria, Croatia, Cyprus, Estonia, Greece, Hungary, Italy, Poland, Portugal, Slovakia, and the United Kingdom (11) provided information on applied methods to obtain the statistical data.*
3.5 Encouragement of the Use of Recycled Material

**Question 5: Has the use of materials obtained from recycled packaging waste been encouraged in accordance with Article 6 (4)? If yes, describe the measures undertaken.**

**Article 6(4)** states that Member States should, where appropriate, encourage the use of materials obtained from recycled packaging waste for the manufacturing of packaging and other products by improving market conditions for such materials and reviewing existing regulations preventing the use of those materials.

A total of 15 Member States which submitted completed Implementation Questionnaires in 2013-2015 have reported that they have encouraged the use of materials obtained from recycled packaging waste. These were: Austria, Belgium, Croatia, Cyprus, the Czech Republic, Denmark, Estonia, Latvia, Lithuania, Luxembourg, Malta, the Netherlands, Poland, Portugal, and Spain.

Based on the completed Implementation Questionnaires for the 2010-2012 reporting period, Germany, Hungary, Ireland and Italy also reported to encourage the use of materials obtained from recycled packaging waste. Romania and the United Kingdom reported in the 2007-2009 period that they encouraged the use of recycled materials.

Six Member States reported that they have not encouraged the use of materials obtained from recycled packaging waste. These are Bulgaria, Finland, France, Greece, Slovakia, and Slovenia. Greece responded “No” but provided detail on a green procurement policy. Sweden gave an unclear response, responding “probably” and detailed the role of producers. These were the only two Member States who didn’t answer “yes” and provided further detail. This is summarised in the responses below.

**Member State responses are summarised below:**

In Austria, there is a voluntary environmental commitment by the Austrian beverage industry. This is the “Sustainability Agenda 2008-2017 of the Austrian Industry for Beverage Packaging”, under which a higher percentage of material recycling is promoted, especially for PET packaging (e.g. through "bottle to bottle" recycling). This is evidence of closed-loop recycling practice in Austria.

In Belgium, federal laws exist on product standards for the promotion of sustainable production and consumption patterns and the protection of the environment and public health. The three regions along with Fost Plus, Val-I-Pac and the Scientific and Technological Centre for Construction (CSTC) funded the creation of a catalogue of recycled products.

Further action is taken at a regional level in Belgium, Flemish policy is based on the need for the sustainable closure of material circuits, with the effective use of recycled materials encouraged. This goes beyond materials recycled from packaging waste and
applies to all materials. In the Walloon region the Walloon Plan for Waste and Resources promotes the eco-design of packaging thus encouraging reuse and recyclability. In the Brussels-Capital region TRIDEA sprl in 2015 had a “PET Waste to object” recycling project which aimed to use PET plastic bottles to create new objects. An additional goal of this project was to educate consumers on the circular economy.

In Croatia, collection, recovery and use of recycled materials is promoted through payments to authorised collectors, and the sale of collected packaging waste to recovery operators at a price lower than the price on the European Union market which is agreed with recovery operators.

Cyprus responded that it was encouraging the use of materials obtained from recycled packaging waste. This is a notable change from the 2010-2012 period when the response was no. The encouragement of the use of materials obtained from recycled packaging waste is achieved through green public procurement.

The Czech Republic provided funding for projects that promote waste recovery and recycling through the Environment Operational Programme (2007-2013). The State Environmental Policy 2012-2020 and the national Waste Management Plan also promote the recovery of waste. Direct support for products made of recycled materials has not yet been implemented. The use of materials that are difficult to recycle and for which recycling is not economically profitable is supported within the EKO-KOM system. EKO-KOM is an authorised packaging company. Authorised packaging companies are obliged to provide services to all economic operators placing packaging on the market.

In Denmark, the national tax on waste treatment and the ban on landfilling of waste suitable for incineration support the re-use of materials obtained from recycled packaging waste.

In Estonia, The EU Cohesion Fund assisted with the development of activities “Support for the recycling of waste” and “Support for the preparation for the reuse of waste, including packaging waste” for the period 2014-2020.

In Germany, there is a legal obligation of manufacturers and distributors for product stewardship by "the preferential option of recoverable waste or secondary raw materials in the manufacturing of products". An Eco-label called "The Blue Angel" is a certification for products and services that have environmentally friendly aspects. It places particular emphasis on the use of secondary raw materials, and was applied to a total of around 11,500 products in Germany in 2011.  

60 Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2010-2012
61 European Environment Agency (2011) 2011 Survey of resource efficiency policies in EEA member and cooperating countries. Country Profile: Germany
Greece reported that the use of materials obtained from recycled packaging waste has not been encouraged in accordance with Article 6(4). Greece went on to note that the Ministry of Environment, Energy and Climate Change promotes “green procurement” procedures for the public sector, according to the European Commission requirements. This encourages the use of recycled materials.

Hungary reported organising mobile exhibitions showing goods made from recycled materials (paper, plastic, metals etc.) in the 2010-2012 questionnaire, visiting several Hungarian cities and were followed by local TV, radio, internet, and print media. Whether this initiative has continued into the 2013-2015 reporting period is unclear. A national beverage cartons collection campaign took place in 2010.

In 2004, Ireland established a Market Development Group to oversee the development of a Market Development Programme aimed at facilitating the development of stable and economically attractive markets and outlets for recyclable materials. The work of the Group focused, in particular, on three priority waste streams: paper, plastic and compost. A Market Development Programme for Waste Resources 2007-2011 was formally published in April 2007 and contains 35 specific actions to overcome the barriers to achieving greater levels of recycling in Ireland. A dedicated implementation team was put in place early in 2008 with a view to putting the programme into action.

In Italy, the criteria for the provision of information on the management of packaging waste are indicated in Article 219 of Legislative Decree No 152/2006. CONAI and the individual sector consortia have organised various information and awareness-raising campaigns and training seminars aimed at consumers and users of packaging. This information concerns, in particular, the availability of systems for return, collection and recovery, the role of packaging users and consumers, the important points of the programmes for managing packaging and packaging waste, and the important points of the specific provisions contained in the regional plans. CONAI, a packaging consortium, have also produced guidelines on Design for Recycling encouraging development of more easily recyclable packaging.

In Latvia, consumption of products obtained from recycled packaging waste is encouraged with the help of green public procurement. According to the Public

63 Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2010-2012
64 Rx3.ie, (2015). Rx3 Home. [online] Available at: http://www.rx3.ie Rx3 was developed by the Department of Environment, Heritage and Local Government (DECLG) and it is tasked with project managing the key objectives and deliverables of the Market Development Programme for Waste Resources 2007 – 2011.
65 Information from the Implementation Questionnaire for the 2004-2006 period, as referred back to in the Member State Implementation Questionnaire in 2010-2012
Procurement Law public supply or service contracts incorporate requirements on environmental protection (i.e. eco-label). The use of products derived from recycled packaging is also indirectly stimulated through educational activities organised by VARAM and packaging managers.

In Lithuania, the State Strategic Waste Management Plan identifies the following methods of waste recycling promotion in Lithuania (some of the methods promote the use of materials obtained from recycled waste as well as packaging waste):

- the National Implementation Programme for green procurement;
- the development of a market for products and materials produced from secondary raw materials; and
- the Certification system for the products and materials obtained from recycled waste.

In 2011, a research project commissioned by the national Ministry of Economy identified the critical priority raw materials (including those obtained from waste) for Lithuania’s economy and assessed their effects on Lithuania’s competitiveness.

In Luxembourg, according to the Decree of the 1st of February 2008, the authorised system for take-back and recycling of packaging waste, Valorlux, may contract recycling networks to ensure proper material recovery. Pursuant to Article 4 of the decree, only packaging waste which cannot be recycled may be subject to thermal treatment for energy recovery. The management of packaging waste is oriented towards high quality recycling to maintain the secondary raw material for as long as possible. Door-to-door collection of plastics, metals and drink cartons is organised by Valorlux. Transparent and slightly blue PET is now treated in a stream of “bottle to bottle” recycling. In addition the reusable “Eco-sac” (eco bag) which is promoted on a national scale by retailers now contains 40% recycled HDPE.

In Malta, the “National Action Plan for Green Public Procurement” includes criteria that encourage the use of materials obtained from recycled packaging, some of which are mandatory for all tenders issued. For instance, for the procurement of food products, additional points are given to bidders who supply products with more than 45% recycled content and/or bidders who supply products in packaging materials based on renewable raw materials. In the case of procurement of cleaning products, the cardboard packaging shall consist of at least 80% recycled material. Furthermore, for the procurement of furniture, national criteria require that packaging must consist of readily recycled material.

The Netherlands make reference to Article 3 of the Packaging and Paper and Cardboard management decree and the information provided within the relevant notifications. These are 2002/0163/NL which is a draft decree laying down rules for packaging and packaging waste (2014 Packaging Management Decree) and 2010/0017/NL which is a draft decree by the Minister of Housing, Spatial Planning and the Environment amending the Decree on the management of packaging, paper and cardboard as regards the improvement of the rules on packaging.
In **Poland**, businesses which place products on the market in packaging finance the recovery and recycling of waste packaging in order to meet the required recovery and recycling rates. In the process they reduce the costs of manufacturing products derived from recycling packaging waste, enhancing their market position. A proportion of the product charges, paid by businesses which do not meet the required recovery and recycling levels, are used for financing the recovery and recycling of packaging waste.

In **Portugal**, the licence recently awarded to Valormed includes the obligation of differentiation of the financial fee paid by packers when selling packaging that contains refills or that use materials or combinations of materials which are easier to recycle, so as to encourage preventative care in the manufacturing of packaging. It should be noted that this type of obligation will be introduced in the remaining management body licences, and will be awarded in the near future.

In addition, the National Green Public Procurement Strategy for 2008-2010 lays down environmental criteria with a specific criterion for incorporation of recycled materials in products purchased through public procurement. The LIFE+ financed project Ecovia is concerned with creating materials from recycled cardboard beverage packaging, rubber and mixed plastic waste. New products for the road transport sector (e.g. road signs and central barriers) are made from waste including packaging waste. The exhibition “Remade in Portugal 2009” aims to foster the creation and development of products made of at least 50% recycled materials and takes the form of periodic exhibitions in Portugal and abroad to spread the culture of eco-design and sustainable development.

In **Romania**[^67], under the GD No 621/2005 as amended by GD No 1872/2006 in the procurement of products from public funds, priority is given to products obtained from recycled products or whose packaging is obtained from recycled material.[^68]

In **Spain**, some autonomous communities have encouraged the use of materials derived from recycled packaging waste through awareness raising campaigns, implementing measures focused on ‘green procurement’ or establishing agreements with the Council of Official Chambers of Commerce and Industry to provide an environmental assessment of companies and to distribute information on recycling and recycled sub-products. In the Principality of Asturias recycled LDPE, HDPE, PET and PP are used in the production of new packaging and recycled card in the production of cardboard boxes. In Catalonia, the Waste Agency has held Recycling Design Awards which give distinction to products, projects, strategies and materials which consider and integrate into their design the use of recycled materials or improvement of recyclability. The winning entries are displayed in a travelling exhibition.

[^67]: Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2007-2009

Business waste prevention programmes to be implemented by packagers which exceed the established thresholds, may include objectives and measures focused on the incorporation of secondary raw materials from recycled packaging waste in the manufacturing of new packaging. In application of this provision, many packaging companies are now incorporating recyclable waste material into their new packaging. Additionally, the 2008-2015 National Integrated Waste Plan (PNIR) encourages the use of waste recycling materials instead of raw materials and the promotion of such products (e.g. by encouraging green purchases by the government and, where possible, by the private sector).

In addition to this, Spain approved the State Plan for the Management of Waste (PEMAR) 2016-2022 at the end of 2015. This contains a chapter on packaging which includes a guideline to “guide innovation towards the search for new applications and markets for materials from packaging waste that need greater momentum”. Guidance from the domestic waste section also applies and states that Spain will aim for “development and strengthening of the markets for the materials and products obtained”.

Sweden reported that it is probable that the use of materials obtained from recycled packaging was encouraged in 2013-2015 period, but that producers are responsible for the system so they have no clear proof.

In the United Kingdom\(^ {69}\), the majority of producers choose to meet their recovery and recycling obligations by joining a compliance scheme. One of the requirements placed on compliance schemes is to have policies in place showing the steps they will take to increase use of recycled packaging waste in the manufacture of packaging or other products supplied by their members. WRAP has undertaken projects aiming at breaking down commercial and technical barriers. The voluntary “Courtauld Commitment” between grocery retailers and WRAP aimed at reducing food and packaging waste. Amongst other measures, retailers are being encouraged to meet specified targets through increased use of recycled material in their packaging.\(^ {70}\) In addition, public procurement standards require the use of recycled material.

**Conclusion:**

*Most Member States (21) have reported to have taken measures to encourage the use of materials obtained from recycled packaging waste for the manufacturing of packaging and other products in 2013-2015 or in a previous period. Six Member States responded negatively, these were: Bulgaria, Finland, France, Greece, Slovakia, and Slovenia. Sweden responded that it had “probably” encouraged the use of recycled material and Greece, whilst answering “No”, gave details on green public procurement procedures which encourage the use of recycled material.*

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\(^ {69}\) Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2007-2009
\(^ {70}\) WRAP The Courtauld Commitment 2025 [http://www.wrap.org.uk/content/courtauld-commitment-2025](http://www.wrap.org.uk/content/courtauld-commitment-2025)
The most common measures include: green procurement; promotion within waste management plans of the use of recycled materials; financing of projects or research into the promotion of recycled materials; information and awareness-raising activities; measures specifically related to drinks packaging; and eco-certification of products. In a number of Member States, innovative projects have looked at uses for recycled packaging material and in Portugal exhibitions of products made from at least 50% recycled material “Remade in Portugal” have been created to try and encourage a culture of eco-design.

Cyprus and Malta have undergone significant change since the last reporting period having both previously reported that measures had not been taken. In 2013-2015, Cyprus reportedly encouraged the use of materials obtained from recycled packaging waste through its Green Public Procurement procedure. Malta also detailed measures relating to Green public procurement and targets for the percentage of recycled material in certain types of packaging.

In terms of good practice, Austria and Luxembourg detail in their responses evidence of closed loop recycling which is considered good practice. Austria has detailed bottle-to-bottle recycling for PET packaging, and in Luxembourg practice is the same and covers transparent and slightly blue PET.

Green public procurement standards are also considered good practice for encouraging the use of materials obtained from recycled packaging waste. Member States who detailed green public procurement in their responses are Cyprus, Greece, Latvia, Lithuania, Malta and Portugal. These green public procurement approaches were varied, with Member States providing differing levels of detail. This ranged from stating that green public procurement encouraged the use of recycled materials to others such as Portugal who detailed how there are specific environmental criteria for the incorporation of recycled materials in products purchased through public procurement. Latvia has also included requirements for environmental protection in its Public Procurement law for public supply or service contracts.
3.6 Information Campaigns

Question 6: How have the measures and targets referred to in Article 6 (1) (a) and (b) been published in accordance with Article 6 (6)? Describe the information campaign aimed at the general public and economic operators.

Question 7: What measures have been taken in accordance with Article 13 to ensure that users of packaging receive the information laid down in that Article?

Article 6(1)(a) requires Member States to take the necessary measures to attain certain targets on packaging waste recovered or incinerated at waste incineration plants with energy recover no later than the 30th of June 2001.

Article 6(1) (b) requires Member States to take the necessary measures to attain certain targets on packaging waste recovered or incinerated at waste incineration plants with energy recovery no later than the 31st of December 2008.

Article 6(6) states that measures and targets referred to in this Article should be published by Member States and should be the subject of an information campaign for the general public and economic operators.

Article 13 requires Member States to take measures to ensure that users of packaging, including particular consumers, obtain the necessary information on return, collection and recovery systems, their role in contributing to re-use, recovery and recycling of packaging and packaging waste, the meaning of markings on packaging, and the appropriate elements of waste management plans.

All reporting Member States (21) have stated that they have information campaigns and most (19) described the information campaigns they have available. In addition, even though France, Germany, Hungary, Ireland and Italy did not submit completed Implementation Questionnaires 2013-2015, their responses to the Implementation Questionnaires 2010-2012 have been considered where they had reported having information campaigns in place. For Romania and the United Kingdom the same applies according to their responses in the 2007-2009 period.

In total, all 28 Member States reported having information campaigns relating to Article 6 (1) (a) and (b), Article 6 (6) and Article 13.

Member State responses are summarised below:

In Austria, measures and targets of the Packaging and Packaging Waste Directive were published in the National Waste Management Plan for 2011. Responsibility for public information campaigns is delegated to the collection and recovery organisations and local authorities provide information at a local level.

In Belgium, the Interregional Packaging Commission and the collection and recovery systems Fost Plus and Val-I-Pac provide comprehensive information through different
media including press, radio, TV, postal campaigns, information online, brochures, and by participating in conferences and training courses. A message was published in all local and national communication material about the restricted meaning of the “Green Dot” logo, and posters in supermarkets inform consumers about take-back obligations.

At a regional level, the Walloon region subsidises non-profit organisations which lead waste prevention campaigns in schools. These include the Green Belgium campaign whose slogan translates as “young people’s effect against the greenhouse effect” and COREN which is a programme of eco-audits in schools. With relation to Article 13, awareness meetings are held and best practice is disseminated to event organisers to promote waste prevention in the organisation of events as well as an annual awareness campaign to encourage consumer choice to minimise packaging waste.

In addition in the Walloon region, a number of other actions have been taken which relate to informing the public. These include “FestiWapp” which focussed on Walloon music festivals and took various environmental awareness actions. These included sorting of waste, use of reusable cups and biodegradable dishes, and sustainable development. The big spring clean “Le Grand Nettoyage de Printemps” is another awareness raising campaign for Walloon residents to collect litter and learn about prevention. Finally, action is taken in schools with animations presented according to the level of the students and addressing those in nursery, primary and secondary education. They include topics such as waste-sorting.

In Bulgaria, the targets were published in the Waste Management Act (State Gazette No. 86 of the 30th of September 2004, last amended in State Gazette No. 53 of 13 July 2012) and in Article 9 of the Ordinance on Packaging and Packaging Waste (State Gazette No. 85 of 6 November 2012). Waste recovery organisations are responsible for carrying out public awareness campaigns through different media, including press, radio, TV, postal campaigns, information online, brochures, and by participating in conferences and training courses.

Such strategies included the promotion of separate waste collection at local level. Educational movies, shows and quizzes for children and high school students have been used as part of the information campaign in Bulgaria. Finally, the national Ministry of the Environment and Water website provides public access to useful information on separate collection of packaging waste.

In Croatia, according to Article 6 of the Ordinance on Packaging and Packaging Waste, the Croatia Environmental Agency (CEA) annually publishes data on quantities of packaging produced, imported and exported, as well as data on packaging waste which is generated, collected, recovered and exported. This information is available online. The Ministry also provides comprehensive information through different media, including press, radio, TV, information online, and by participating in conferences and seminars. According to the Ordinance, producers have to inform sellers and consumers about the essential characteristics of products and packaging in terms of hazardous substances, pollutants and treatment when becoming waste.
In **Cyprus**, targets and measures described in Articles 6 (1) (a) and (b) regarding recovery have been presented in a number of ways. Cyprus details use of awareness campaigns, seminars, leaflets, stands in various exhibitions/fairs and information and recycling targets published on the Department of Environment (DoE) website. In addition, the collective management system Green Dot Cyprus has several initiatives for the promotion of recovery and recycling in order to attain the targets. They use a number of tools, including internet campaigns, information published on social media websites including Facebook, apps available on smartphones and tablets, competitions, a newsletter, presence at festivals, environmental awards, leaflets and voluntary cooperation with other stakeholders. An example initiative was taken for informing the users and general public through a programme called “partner”, where private companies can put a sign directly on their products showing and informing consumers where they can take their waste. Some companies use a sticker or printing on the packaging with information about the product and that it includes a percentage of recycled material.

In the **Czech Republic**, the targets have been published in Annex 3 to Act No. 477/2001 on packaging as amended, as well as in the National Waste Management Plan. Official information is published on the website of the Ministry of Environment and on the website of the authorised company EKO-KOM A.S., which is obliged to provide information to the public. TV and press advertising campaigns have been run, along with leaflets and posters to explain the role of the consumer in the process of packaging waste recovery. This was followed by a TV campaign to promote household waste sorting. School activities (including a website for children) and public training for municipalities, towns and cities has also been undertaken, together with an advice service for municipalities on optimising the separation and collection of household waste.

In **Denmark**, The Danish Environmental Protection Agency annually publishes information on the amount of packaging generated in Denmark. This information is publicly available. All local authorities are obliged to provide details on the collection schemes to be published in local papers. Municipalities provide information on the collection schemes for households and industry. Dansk Retursystem A/S is a not-for-profit organization that handles the Danish container deposit system. It is responsible for providing information about the deposit and return system for beverage packaging through TV campaigns, advertisement in papers and other media. All stores which accept return of empty beverage packaging display information on the rules of the system.

In **Estonia**, the recovery targets are laid down in the Packaging Act (Section 36), which is published in Riigi Teataja (Estonia’s State Gazette). In addition, the National Waste Management Plan 2014–2020 covering the field of packaging and packaging waste has been adopted. Section 17(4) (4) of the Packaging Act stipulates the duties of recovery organisations. The Act requires the public and consumers to be notified of the rules and requirements for returning packaging and packaging waste. Recovery organisations are required to submit to the Ministry of the Environment information regarding awareness-raising activities and cost in their review of activities for the preceding calendar year.
notable change from the last reporting period is that the National Waste Management plan 2014-2020 has been completed and implemented.

In Finland, the provisions of minimum targets of generation of packaging waste, re-use and recovery are published in the Government Decision (962/1997) of packaging and packaging waste. The general public is informed through TV, radio and the press and the economic operators through professional seminars. The Environmental Register of Packaging PYR Ltd publishes a “PYR Info – leaflet” which is distributed to producers in the packaging sector. The supervising authority (Pirkanmaa ELY-Centre) publishes on their website the annual statistics of packaging waste including the achievement of the targets.

According to the Waste Act, informing consumers of the collection of packaging waste and other necessary issues related to it is the duty of the producers. In addition, since 2009 consumers have been able to find the nearest waste collection point with help of a nationwide web service. The service is organised by the Finnish Solid Waste Association (FSWA) representing Finnish regional and municipal waste management companies, together with a number of producer organisations. In addition, municipalities also provide relevant information on that matter.

In France, the National Environmental Agency ADEME publishes the data on packaging and packaging waste on their website and in an annual report. In addition, the data are presented at trade fairs and regional and national conferences. The Consultative Commission on household packaging informs on the targets and related measures as well as other stakeholders which may disseminate this information. National campaigns on the sorting of waste are performed annually by the licensed companies Eco-packaging and Adelphe. Such campaigns highlight the missions undertaken by the various stakeholders and the results in terms of recycling of household packaging waste.

In Germany, the targets were announced when the Directive was published in the Federal Law Gazette (Bundesgesetzblatt). In addition, the targets were subject to public information campaigns at national, regional and local level. The dual waste management systems and the local authorities have to coordinate public information. Notices in retail stores provide information on the return of packaging. The results of the dual waste management systems are published annually in the form of a statement of the volumes handled.

In Greece, information campaigns were addressed to certain target groups such as households, the public, businesses, schools, tourists, and industry. The Hellenic Recycling Agency (HRA) has created a website concerning recycling including information on the legislative framework (EU and national legislation), information about the approved

71 Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2010-2012
72 Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2010-2012
systems for the alternative management of packaging waste and information with respect to their function and the results achieved from their operation. This website also allows the user to directly connect to other websites containing further information. HRA and the Extended Producer Responsibility systems (EPRs), HERCo in particular, organise awareness campaigns to inform both the public and stakeholders. Information availability and actions promoting awareness are a pre-condition for an EPR to be granted or retain its approval.

In Hungary73, the measures and targets referred to in Article 6 (1) (a) and (b) have been published in many different ways. They have been publicised on the Internet, at different professional meetings, with relevant articles in local and national newspapers, publications in professional media, in presentations held by associations of municipalities and different industrial and trade sectors. Basic information was given by central papers, regional and local newspapers, TV stations and websites (state, authorities, industrial and trade organisations, NGOs, and schools).

In Ireland74, awareness of the targets and measures applied to achieve them, is raised continuously via Ministerial speeches, official press releases, government policy statements as well as by way of seminars in relation to waste management, including packaging waste. The website of the Department of the Environment, Heritage and Local Government (DEHLG) also provides information on the regulatory regime for packaging waste. The National Waste Reports for 2007-2008 provide comprehensive information on packaging waste recovery across a range of material-specific streams. Information on packaging waste is available to users and consumers of packaging from a number of sources including the websites of the DEHLG and EPA and the Department's online Environmental Information Service- ENFO.IE. Local authorities provide information by way of leaflets and online on how householders can best manage their packaging waste. Their Environmental Awareness Officers advise businesses and the public on the benefits of recycling.

Italy75 reported in 2004-2006 that the criteria for the provision of information on the management of packaging waste are indicated in Article 219 of Legislative Decree No 152/2006. CONAI and the individual sector consortia have organised various information and awareness-raising campaigns and training seminars aimed at consumers and users of packaging. This information concerns, in particular, the available systems for return, collection and recovery, and the role of packaging users and consumers in the process of re-use, recovery and recycling. It also covers the meaning of the marks placed on packaging available on the market, the important points of the programmes for

73 Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2010-2012
74 Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2010-2012
75 Information from the Implementation Questionnaire for the 2004-2006 period, as referred back to in the Member State Implementation Questionnaire in 2010-2012
managing packaging and packaging waste, and the important points of the specific provisions contained in the regional plans. Details of the communication activities are presented in detail in a specific chapter of the general prevention and management programme for packaging and packaging waste.

In Latvia the measures and targets have been transposed by Cabinet Regulation No. 983 of the 19th of January 2010, replacing Cabinet Regulation No. 65 of the 16th of January 2007 on percentage amounts (proportions) and deadlines for the recovery of all packaging waste. A procedure for registration and the submission of reports and model forms has been established, with requirements which must be fulfilled by commercial companies in order to be registered as packaging managers. It also provides examples of the application of the criteria defining packaging and exceptions in relation to heavy metal content in packaging. The packaging manager is obliged to inform the public of possibilities for separate collection of packaging waste and resource recovery, the role of packaging users in the reuse of packaging and the recycling and recovery of packaging waste and the meaning of markings on packaging. This information is collated on the website of the national Ministry of Environmental Protection and Regional Development.

In Lithuania, the packaging waste management targets specified in Article 6(1) (a) and (b) of Directive 94/62/EC are set out in the National Waste Management Plan. An approved plan is published in the Register of Legal Acts and on the Ministry of the Environment website. The Ministry of the Environment publishes the packaging waste management results in an annual publication entitled Aplinkos būklė (Environmental Status). This publication provides data on the quantity of packaging placed on the domestic market per capita, the quantity of packaging waste managed (by material), and the extent to which the targets for waste use/recycling have been met. This information is also published on the national Ministry of the Environment’s website and the Environmental Protection Agency’s website.

The 2014–2020 Plan of Measures for Implementing the National Waste Prevention Programme includes Measure 2.4.1.5 “implementing awareness-raising measures to inform the public about the opportunities for preventing packaging waste, for instance by choosing goods with less packaging and goods in recyclable and economical (bulk) packaging”. Under Article 34 of the Law on waste management, the Product and Packaging Waste Management Programme was developed, the budget for which was used in 2015 to produce TV broadcasts and show video recordings about the damage done to the environment by plastic bags and other packaging and about reducing their use. The aim was to encourage people, to choose reusable, bulk packaging.

Lithuania also reports that under the project “Public information about the environment in educational programmes, the press, the internet and other public information media”, implemented under the Operational Programme for the Promotion of Cohesion (Priority 1, List 2) in the period 2013-2015 there were:

- 42 instalments of Žalioji enciklopedija (Green Encyclopaedia) about the management of waste, including packaging waste, were broadcast on the Lithuanian national TV channel TV3;
80 programmes about the management of waste, including packaging waste, were broadcast on the Žinių radijas radio station;

Around 240 articles were published on the internet news site www.łytytas.lt about the prevention and management of waste, including packaging waste;

140 000 cm² of information about environmental issues (including packaging waste management) was compiled and printed in the national press, with 100 000 cm² in the regional press and 400 000 cm² in the local press; and

more than 100 publications (some about packaging waste management) were made available on the www.grynas.lt information portal.

In Luxembourg, the authorised take-back and recycling system Valorlux is responsible for publishing information according to Article 13. Luxembourg states that detailed information on information campaigns addressing the public and businesses is available at the Ministry’s website. No further information was included in the Member State Implementation Questionnaire.

In Malta, any planned national measures have been included in the specific sections for management of packaging and packaging waste of the “Waste Management Plan for the Maltese Islands – A resource management approach (2014-2020)”, particularly sections 2.4.2 and 3.4.2 of the Plan, as well as in the National Waste Prevention Programme which has been integrated in the aforementioned plan. Furthermore, as highlighted in the National Waste Management Plan, WasteServ Malta Ltd and the authorised packaging waste recovery schemes carry out educational campaigns targeted at the general public as well as the key stakeholders, particularly the producers of packaging or packaging material. Some of the targeted educational initiatives included:

- Talks and educational games in schools;
- Waste management training for companies and government departments;
- Continuous interaction with the general public through social media and other means of communication such as television and radio programmes; and
- Regular participation in local community events with stands to promote sustainable waste management practices.

In the Netherlands, the general public is informed by the municipalities and by the industries’ collective organisations for the collection of packaging waste. Economic operators are informed by material associations and the aforementioned collective organisations. There is also information available on the website of the Ministry and other governmental websites. The Netherlands did not given any further details regarding information campaigns.

In Poland, obligation has been placed on businesses which sell products in packaging to provide users of such products with the information. Producers, importers and those making intra-community purchases of packaging or authorised recovery organisations are also obliged to carry out educational activities on the proper collection and recovery of packaging waste. They are obliged to set aside 2% of the net value of packaging placed on the market for educational and informative campaigns. Businesses which place products on the market in packaging fund the recovery and recycling in order to meet
the required rates. In the process they reduce costs of manufacturing products derived from recycling packaging waste, enhancing their market position.

In Portugal, the targets were published in Article 7 of Decree-Law No 366-A/97 of the 20th of December 1997 and measures have been undertaken to raise awareness amongst the target groups. The Portuguese Environment Agency provides comprehensive information online (www.apambiente.pt), organised workshops and meetings with actors of the packaging waste sector and supported the project. During the period 2013-2015 a number of awareness and communication campaigns were undertaken by the integrated management licensed entities. Some examples of these are as follows:

- Magazine 'Recicla' - 'Recicla' is the only magazine in Portugal dedicated to the sustainability theme and is published quarterly, having been sent to 17,000 subscribers of other Portuguese magazines. In addition to the printed version, a digital version was launched for android tablets and iPads, which is freely available as a standalone app;
- Presence in KidZania – Kidzania is a replica city theme park for children in Lisbon. SPV were responsible for a recycling centre at the park and in 2013, it was visited by 14,000 children who learnt to sort packaging, retrieve contents of the yellow recycling point and make recycled paper;
- Festivals - within its strategy of direct contact with the main targets who can influence waste management in the home, one of the target groups that was identified was youths and teenagers. SPV used the summer festivals as an opportunity to communicate with this target group. Between July and September, SPV was present at four major Portuguese music festivals. They were in a stand with the shape of a giant ecoponto (recycling centre) and through a giant wheel of fortune, festival attendees could try to win a t-shirt under the slogan “recycling is playing here”. The stand was visited by 14,808 people and it collected 1,700 kilos of packaging; and
- Recycling Myths - During Mission Recycle, when around one million homes were visited, some questions were continually asked that revealed that there were still myths surrounding the recycling of waste packaging in Portugal. Some of these myths were used as an excuse not to sort waste and were subsequently addressed by a campaign with presenters dispelling the myths. The video produced was shown in cinemas and on TV channels as well as on SPV’s Facebook page and YouTube channel where they reached 830,000 people.

In addition to these programmes, Valormed also ran its own programmes.

In Romania, environmental awareness and readiness to participate in separate collection by the public remains low, but is increasing through general environmental

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76 Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2007-2009
campaigns and educational activities, or targeted initiatives such as is the case of packaging and for WEEE. Amongst other national objectives for the improvement of the waste management, there is a priority to minimise littering by awareness campaigns and direct investments in the waste management infrastructure. “Let’s Do It Romania”, organised in 2011, was a national cleaning day to motivate and mobilise the general public to participate in collection of litter.77

In **Slovakia**, Decree No. 91/2011 Coll. and Decree No. 210/2005 Coll. define requirements for properties and for composition of packaging and corresponding labelling. Users of packaging have to be informed on municipal waste management according to Act No. 223/2001 Coll. Journals such as “Waste”, “Enviromagazine”, “Waste Management” and “21st Century” are published in Slovakia and seminars and workshops are organised for economic operators.

**Slovenia** details how the Ministry of Agriculture, Forestry and Food was transformed in 2012 into the Ministry of Agriculture and the Environment. It goes on to state how the work portfolios of the Ministry of Agriculture, Forestry and Food and the work portfolios of the Ministry of the Environment and Spatial Planning relating to the environment, as defined by Articles 32 and 36 of the Central Government Act have been combined. The Member State does not detail any information campaigns, or publishing of the targets in Article 6.

In **Spain**, at the national level, the objectives of recycling and recovery are published in Article 5 of Law 11/1997, of the 24th of April. Article 16 of that same law establishes the obligation on the part of Public Administrations to inform economic agents, consumers and NGOs about the obligations and objectives established in it. In the packaging chapter of the Waste Management Framework State Plan, information was included on the evolution of recycling and recovery of packaging waste since the entry into force of Law 11/1997, from April the 24th 2012. In addition, The Environmental Profile is published annually, and includes, in the waste section, the data on generation, recycling and recovery of packaging.

Additional action is taken in Spain’s autonomous communities and includes information campaigns carried out at times of increased generation of waste such as Christmas in the Islas Baleares. In the region of Catalonia an annual report is published detailing activities and giving data on the generation and collection in each municipality. There is also a smartphone app *Envas on vas?* Which asks ‘Container, where are you going?’ and allows users to easily identify where different waste streams should be deposited, informs them about treatment and gives waste prevention advice. Furthermore a campaign exists targeting children with an aim of instilling good habits in future generations. In La Rioja annual citizen awareness campaigns are carried out and financed by Ecoembes and Ecovidrio. These were the 2013 campaign "The raffle of recycling", the 2014 "Proud to recycle" campaign, the 2015 "recycle well" campaign, and annual campaigns in the

HoReCa sector such as "The hotel trade also recycles". In Castilla Y Leon local campaigns covering recycling and the circular economy publicise information by advertising on television, radio broadcasts, street theatres and children’s stories aiming to reach a diversity of audiences with their message.

In Sweden, municipalities are responsible for informing households on where to dispose of packaging. Förpacknings-och tidningsinsamlingen (Packaging and Newspaper Collection) carries out local and national campaigns to inform the public of the environmental benefits of recycling. The Swedish Environmental Protection Agency reports annually on packaging waste in the series Samla in, återvinn (Collect, Recycle!). The report and a summary of the report can be found on the website of the Swedish Environmental Protection Agency.

In the United Kingdom, the Producer Responsibility Obligations (Packaging Waste) Regulations place a responsibility on producers of packaging who carry out a ‘selling’ activity to provide information to consumers regarding the goods they sell. If a producer joins a compliance scheme then the regulatory requirement to provide information to consumers passes to the compliance scheme. A specific example of how this has been applied in practice is the Recycle More project. This project provides a website with guidance on how consumers can recycle their packaging and includes the UK’s largest recycling bank locator which enables consumers to identify the collection and recovery systems available in their area. The project has produced a range of advice and guidance on re-use, recovery and recycling tailored to a range of audiences including householders, businesses and schools. Regional and local authorities also provide advice to residents on packaging and packaging recycling.

Conclusion:

In conclusion, all 28 Member States reported having introduced information campaigns across different reporting periods. Luxembourg, the Netherlands and Slovenia provided little detail on their information campaigns, but this was in part due to delegating responsibility for such measures to collection and recovery organisations.

Several Member States have reported that they also made information publicly available on whether the targets are being met. Most countries have reported a very wide range of information and communication measures. Information for users and consumers of packaging, including the general public, is provided by collection and recovery schemes, producers, other stakeholders and central, regional and local government. This takes many forms, including press, radio and TV, printed materials, websites and events. Several Member States have also reported that they have undertaken specific information campaigns for schools and children and increasingly in

78 Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2007-2009
this reporting period the use of social media sites is becoming more common for disseminating information.

During the reporting period 2010-2012, all Member States had published the measures and targets on recycling and recovery, generally through legislative acts, online and/or in printed information provided to the general public and economic operators.

In this reporting period many Member States are demonstrating good practice with well managed information campaigns of broad scope which make use of multiple media outlets. As such, it is worth highlighting the couple of Member States, who, based on their Implementation Questionnaire responses are ahead of the curve in terms of the outlets they are using. Portugal has reported using YouTube and Facebook to promote correct sorting of waste and use of the recycling system by publishing videos “myth busting” which aim to tackle the most common misconceptions that came up during their Mission Recycle campaign. In Spain, an app which translates as “Container where are you going?” has been developed which allows users to easily identify where different waste streams should be deposited, informs users about waste treatment, and gives waste prevention advice.
3.7 National Standards relating to the Essential Requirements and to the Concentration Levels of Heavy Metals

Question 7: Are there any national standards relating to the essential requirements in accordance with Article 9 and to the concentration levels of heavy metals, in accordance with Article 11? If yes, have these been communicated to the Commission? If no, state why.

Article 9 requires Member States to ensure that only packaging that complies with the essential requirements of Annex II to the Directive may be placed on the market. For this purpose, harmonised standards should give presumption of conformity with the essential requirements. In the absence of harmonised standards, national standards can also give presumption of conformity.

Article 11 sets concentration levels for four heavy metals in packaging which packaging or packaging components shall not exceed.

Belgium, Bulgaria, Croatia, Cyprus, Finland, Latvia, Malta, the Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain and Sweden (14) have reported the existence of national standards in both areas covered by the question and that they have notified the Commission.

Based on the completed Implementation Questionnaires for the 2010-2012 reporting period, it can be confirmed that France, Germany, Ireland and Italy have also reported on national standards in both areas covered by the question. Romania and the United Kingdom reported in the 2007-2009 period that measures had been set up. Hungary reported in the 2010-2012 period that the required standards had been transposed into national law, without introduction of specific national standards.

Austria, Denmark, Estonia, Lithuania and Luxembourg (5) reported to have transposed the required standards into national law, without having introduced any national standards. Greece and the Czech Republic simply responded “No”.

As such, a total of 20 Member States reported on national standards in both areas covered by the question. Eight Member States responded otherwise, with six of them detailing the translation and transposition of the relevant European standards.

Member State responses are summarised below:

Austria reported that they have publicised the reference numbers of the existing European packaging standards and that additional standards were not considered necessary.

The Czech Republic reported that there are no national standards. Little detail is provided in the response so it is not clear whether this is because harmonised EU standards are used.
Denmark responded that they do not think that there is a need for composing a national standard at present. However, the European standards for packaging\(^79\) have been translated into Danish.

Estonia responded that no national standards have been established, it elaborates that they are not needed as the harmonised standards are in place.

Greece has reported that there are no national standards in its response to the Implementation Questionnaire 2013-2015, but its legislation indicates that the European standards have been introduced.

Hungary\(^80\) reported that they have introduced European Standards of essential requirements as national standards.

Lithuania reported that there are no additional exclusively Lithuanian standards but that the European standards have been transposed and translated into the national language.

Luxembourg reported that there are no additional national standards. It stated that the five harmonised European standards setting out the essential requirements with respect to packaging and packaging prevention are applicable in Luxembourg. Furthermore, Luxembourg imports the majority of its goods and as such the majority of packaging is produced outside Luxembourg.

**Conclusion:**

*Most Member States (20) have reported on the existence of national standards related to the essential requirements of Annex II to the Directive and to the concentration levels for heavy metals in packaging in 2013-2015. Other Member States (6) have reported that they have adopted the relevant European standards in 2010-2012.*

*The Czech Republic and Greece reported that there are no national standards relating to the essential requirements, in accordance with Article 9, and to the concentration levels of heavy metals, in accordance with Article 11.*

*No significant changes have occurred across the remaining Member States with regards to national standards relating to heavy metal concentrations in packaging as compared to the responses submitted in the Implementation Questionnaire 2010-2012. The same number of Member States reported the existence of national standards in the 2010-2012 reporting period.*


\(^80\) Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2010-2012
3.7.1 Report on the Derogation for Plastic Crates and Plastic Pallets

Article 7 of the Commission Decision of the 24th of March 2009 establishes the conditions for a derogation for plastic crates and plastic pallets in relation to the heavy metal concentration levels established in the Packaging and Packaging Waste Directive.

It states that Member States should include in the reports to be submitted to the Commission under Article 17 of the Directive a detailed report on the functioning of the system provided for in this Decision and on the progress made in phasing out plastic crates and plastic pallets which are not in conformity with Article 11(1) of the Directive.

It is worth noting that in the implementation questionnaire 2013-2015 no specific question was included in this regard. Where Member States did provide information it was either as an additional section at the end of their Implementation Questionnaire or as a separate attachment. This section has been included to establish progress with respect to the previous reporting period and discussed at this point in the report as it relates to the concentration of heavy metals in packaging.

15 Member States provided no report on the functioning of the system with respect to plastic pallets and crates and on the progress made in phasing them out in the 2013-2015 period. These Member States did not give mention to such a report in their Implementation Questionnaires. A further seven Member States did not respond in the 2013-2015 period and did not provide an additional report in the 2010-2012 period.

Thus in total, 22 Member States have not provided the required report in 2013-2015. These were: Belgium, Bulgaria, Croatia, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, Malta, the Netherlands, Poland, Romania, Slovakia, Slovenia, Spain, Sweden, and the United Kingdom.

Portugal provided a response related to plastic crates and plastic pallets but indicated that action had not been taken.

Five Member States have provided detailed reports on the functioning of the system provided for in this Decision and on the progress made in phasing out plastic crates and plastic pallets which are not in conformity with Article 11(1) of the Directive. These were Austria, Cyprus, the Czech Republic, Latvia and Lithuania.

Member state responses are summarised below:

Austria provided a written report on the use of plastic crates. It stated that, in 2014, the number of drinks crates was estimated to be around 35 million and that this number has halved since 2001. 600,000 bottle crates were produced for the Austrian market in 2014 and of these 191,000 (approximately a third) were made from virgin materials without the addition of heavy metals. The remaining crates were made from bottle crate material, ground recycled crates from Austria and bottle crate regrind without the addition of heavy metals. These recycled crates are marked with an “R”. In 2014, approximately 286 tonnes of recycled crate material was made available and almost the same amount was reprocessed using material from previous years.
Cyprus stated that samples of plastic crates and plastic pallets were analysed for heavy metal concentration levels and all conformed to the standards required.

The Czech Republic submitted an additional report on the derogation for plastic crates and plastic pallets. It detailed the system in place, the progress made in phasing out plastic crates and plastic pallets, and figures relating to the quantities and types of plastic crate and pallet in use in the Czech Republic in the years covered by the reporting period and those discarded in the same period.

The Czech Republic has had a voluntary agreement in place to ensure compliance with the requirements of the decision since 2010. Signatories of the voluntary agreement are the Ministry of the Environment of the Czech Republic, the Ministry of Industry and Trade of the Czech Republic and the Economic Chamber of the Czech Republic. Under the agreement the Federation of the Food and Drink Industries of the Czech Republic, the Czech Confederation of Commerce and Tourism and the authorised packaging company EKO-KOM are also involved. EKO-KOM holds the position of an operator which obtains the data from manufacturers and distributors. The data are collected and cover all crates and pallets that were placed on the market or put into circulation. The amount of packaging is recorded in tonnes and in number of pieces.

The authorised packaging company EKO-KOM is an EPR system, which has 80% of the data on pallets and crates placed on the market in the Czech Republic through its clients. The obtained data are mathematically extrapolated to the entire market. Every year EKO-KOM performs an analysis of heavy metal concentrations in a representative sample of crates and pallets. The heavy metal concentration depends mainly on the color of the plastic. Crates and pallets were classified into nine groups according to the sector of their use and in each sector samples of all color varieties were selected to be analysed for heavy metal concentration. Subsequently a coefficient is calculated, depending on the heavy metal concentration in the individual color samples and their proportional representation in the various sectors. This coefficient determines the share of pallets and crates exceeding the concentration limit in each sector. The authorised packaging company also collects data on the total number of discarded pallets and crates and the new ones placed on the market.

Based on the data collected, the total weight of discarded crates and pallets exceeding the concentration limits is calculated. The Czech Republic provided comprehensive data covering the reporting period alongside their written account of method.

Lithuania, in response to the previous question about concentration of heavy metals, commented that packaging producers are encouraged to apply the best available means of removing heavy metals during the production process of plastic crates and plastic pallets. This was done to reduce the quantities of heavy metals in plastic crates and pallets to the amount specified by the Directive.

Latvia responded that a registration and accounting system is provided for in Cabinet Regulation No. 983 of the 19th of October 2010 laying down rules on the percentage of recovery of packaging waste, registration and reporting procedures and examples of the
application of criteria for defining packaging. This includes requirements relating to plastic crates and pallets as follows:

- The concentration of heavy metals in plastic crates and plastic pallets may not exceed 100 ppm (ppm by weight) except if they have been manufactured under controlled conditions by reprocessing other plastic crates and pallets containing heavy metals which constitute at least 80% of the total material. The addition of heavy metals in any other way is prohibited;
- Information on the elevated concentration of heavy metals shall be affixed to the plastic pallets and crates in a prominent position and in a durable manner;
- Used plastic pallets and crates with an elevated concentration of heavy metals are returned to the manufacturer or packer of these pallets or crates, or to the authorised representative thereof. The manufacturer, packer or authorised representative is obliged to accept these pallets and crates and either destroy them after agreeing on the procedure for their destruction with the State Environmental Service, process them, or deliver them for processing under controlled conditions to be manufactured into new pallets and crates; and
- The manufacturer or authorised representative is obliged to notify the State Environmental Monitoring Bureau by the 1st of May each year of the release onto the market or withdrawal from the market of plastic crates and pallets with an elevated concentration of heavy metals which fulfil the conditions referred to in paragraph 23 of this Regulation.

According to the information received from the State Environmental Monitoring Bureau, no notifications were received from manufacturers or their authorised representatives during the reporting period of plastic crates or pallets containing an elevated concentration of heavy metals.

Portugal stated that it does not have the information required by the Commission relating to the inventory and records maintenance system, as well as a control method for the regulatory and financial obligations allowing documentation of compliance with the conditions laid down in the Decision.

**Conclusion:**

In conclusion, the majority of Member States (22) did not submit a report or comment in relation to the requirement for a detailed report on the functioning of the system and the progress made in phasing out plastic crates and plastic pallets which are not in conformity with Article 11(1) of the Directive. One Member State (Portugal) provided a response but indicated that the information required was not yet ready.

Five Member States provided additional responses relating to the derogation on plastic crates and plastic pallets. However, the level of detail included and type of responses submitted by these Member States was incredibly variable and ranged from one to two sentences to additional documents which included data on the quantities of plastic crate and plastic pallet packaging and the methods and systems for their management.
The Czech Republic is worth highlighting for providing the most in depth response. However, as this requirement wasn’t included as a question in the Implementation Questionnaire it seems as though it could have, and has, been easily missed by the majority of Member States.

Despite that, a marked increase is seen in this reporting period with the respect to the number of Member States who have submitted additional information. In the 2010-2012 reporting period no Member States provided information. In the current period five Member States provided information which is a significant increase, even though reporting was sporadic amongst these respondents.
3.8 Specific Chapter on Waste Management Plans

Question 8: Do the waste management plans required by Article 7 of Directive 75/442/EEC include a specific chapter on the management of Packaging and Packaging Waste in accordance with Article 14? If no, state why.

Article 7 defines the necessary measures to ensure that systems are set up to provide for 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; the re-use or recovery including recycling of the packaging and/or packaging waste collected. These systems should be open to the participation of the economic operators of the sectors concerned and to the participation of the competent public authorities.

Article 14 requires Member States to include a chapter on the management of packaging and packaging waste in the waste management plans required pursuant to Article 17 of Directive 75/442/EEC.

All reporting Member States (21) have reported either that such a chapter exists in their waste management plans or that they have taken the necessary legislative measures to ensure that it forms part of regional waste management plans. In addition, even though France, Germany, Hungary, Ireland and Italy did not submit completed Implementation Questionnaires 2013-2015, their responses to the Implementation Questionnaires 2010-2012 indicate the existence of such a chapter. For Romania and the United Kingdom the same applies according to their responses in the 2007-2009 reporting period.

As such, all 28 Member States have a chapter on the management of packaging and packaging waste in their waste management plans. Given no Member States responded “No” to this question, no additional details have been provided to be reiterated here.

Conclusion:

In conclusion, all Member States (28) have reported on the existence of a chapter on packaging and packaging waste within their waste management plans, or that a special programme for packaging and packaging waste existed in 2013-2015. There is no change from the 2010-2012 reporting period.
3.9 Economic Instruments

**Question 9: Have economic instruments been adopted in accordance with Article 15 to attain the targets set in the Directive? If yes, specify the measures adopted.**

*Article 15* allows Member States, in the absence of Community economic instruments, to adopt such measures in accordance with the principles governing Community environmental policy, inter alia the polluter-pays principle.

Most reporting Member States (17) have reported that they have implemented economic instruments in accordance with Article 15 to attain the targets set in the Directive. As indicated in Section 3.3 on return systems, most of those Member States (27) have reported that they have implemented a producer responsibility system. Additional measures or specific aspects of producer responsibility systems are outlined in the detailed measures by Member State below. **Malta** responded that no further economic instruments have been implemented in the reporting period so those detailed in its 2010-2012 response have been reported.

In addition, even though **France, Germany, Hungary, and Italy** did not submit completed Implementation Questionnaires 2013-2015, they reported in the Implementation Questionnaires 2010-2012 that economic instruments had been introduced. For **Romania** and the **United Kingdom** the same applies according to the responses given in the 2007-2009 reporting period. **Ireland** reported in the 2010-2012 period that it had not implemented any economic instruments in accordance with Article 15 to attain the targets set in the directive.

**Cyprus, Ireland, Luxembourg, and the Netherlands** reported that they had not implemented any such economic instruments, without providing further details of why this was the case. For the Netherlands this is a change since the previous reporting period when they answered “Yes”.

In total, **24** Member States implemented economic instruments (including Malta) and provided details of the measures in their Implementation Questionnaires in the current or previous reporting periods. **Four** Member States reported not having implemented economic instruments.

**Member State responses are summarised below:**

In **Austria**, producer responsibility involving a take back and financing obligation has been adopted as an economic instrument.

In **Belgium**, the Flemish Region Waste Management Plan (WMP) 2008-2015 and the WMP of the Walloon Region provide for application of economic instruments, primarily environmental taxes.

In **Bulgaria**, Decree No. 120/2008 (amended, State Gazette No. 29 of 2011) amended the requirements of the payment of a product tax on packaging by manufacturers and
importers of packaged products. Economic operators not meeting their obligations to the recovery organisations by up to 30% have to pay double this tax depending on the relevant shortcoming. If the shortfall exceeds 30%, the tax is to be paid for the entire quantity of packaging placed on the market. Furthermore, companies that fail to meet their obligations individually and are not member of a recovery organisation are required to pay a higher product tax.

In Croatia, the packaging waste management system is based on fees and managed by the Environmental Protection and Energy Efficiency Fund. The fees are designed to ensure that Croatia is line with the requirements of the Directive and achieves the targets laid out in it. No further detail was provided.

In the Czech Republic, economic operators bear the costs of the collection and recovery of packaging waste, whether they are registered with the authorised packaging company (EKO-KOM Inc.) or ensure recovery themselves or on the basis of contracts with economic operators in the waste sector. The operators are thus motivated to reduce packaging waste or to develop more cost efficient solutions for the collection and recovery. The deposit on returnable packaging is set at a uniform level for certain types of returnable packaging, serving as another economic instrument.

In Denmark, since 1987, there has been a tax on waste and since 1998 there has been a tax on certain types of packaging. However, the tax on packaging only covers about 20% of the total packaging. The tax depends on the volume, weight, and material of the packaging.

In Estonia, the Packaging Excise Duty Act ("The Act") provides an economic instrument. Section 1 of The Act defines the object of the tax as the packaging of goods placed on the market in Estonia or acquired in another Member State of the European Union and imported into Estonia. In Section 5 the payer of the excise duty is defined, in Section 4 the rates of the excise duty are laid down and in Section 8 the rules concerning exemption from excise duty are laid down.

Finland reported that in addition to producer responsibility schemes, taxes and deposits are in place as economic instruments. A tax of 0.51 euros/litre is applied to all beverages sold in retail packages. There are exemptions to the tax for reusable or recyclable items belonging to a deposit system. The return systems are regulated by the Waste Act (646/2011) Chapter 7 and Government Degree (526/2013).

In France, Decree No. 92-377 of the 1st of April 1992 (codified in Articles R.543-53 to R.543-65 of the Environmental Code) on household packaging states that packaging producers may help finance the costs of managing household packaging waste through

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81 Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2010-2012
approved organisations or companies. This was the first EPR legislation in France, and its contribution has been instrumental in achieving the objectives set out in the Directive.\textsuperscript{82}

In Germany\textsuperscript{83} the economic operator introducing packaging (containing a product) on to the market is obliged to financially support the approved collection and recovery systems for sales packaging of households and similar sources of waste generation (dual waste management systems). The level of financial support depends on the type and amount of packaging put on the market. In this way financial incentives are created to reduce packaging and promote waste prevention.\textsuperscript{84}

In Greece, under the provisions of Law 2939/01, producers (including importers of complete packages and wrappers) contribute financially to approved extended producer responsibility schemes (EPRS). Contributions are based on their market share, aiming to cover the cost of the collection, transport and recovery including recycling, development of the appropriate infrastructure, and costs linked to management, data recording and reporting, as well as the cost of relevant awareness raising events and campaigns targeting the end users and consumers of packaging. In addition, the Structural Funds of the European Commission through the National Strategic Reference Framework (NSRF) and the Development Law aim to enhance recycling in Greece. Finally, through Public-Private Partnerships (PPPs), managed by the Ministry of Economy, projects on alternative waste management and recycling are financed.

In Hungary\textsuperscript{85}, a product charge was introduced in 1996. Obliged companies which put a packed good on the market for the first time have to pay a product charge in case they do not attain a certain recovery rate for the packaging waste. The product charge is based on the weight of packaging used and varied also on the basis of packaging material.\textsuperscript{86}

In Italy\textsuperscript{87}, the costs of managing packaging waste must be shared between the producers and users of such waste through payment of an environmental levy to CONAI This levy is calculated for each type of packaging material according to the quantity and quality of packaging waste recovered or recycled, and is aimed at supporting the costs of separate collection, recycling and recovery of primary packaging waste. Accordingly, this results in


\textsuperscript{83} Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2010-2012


\textsuperscript{85} Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2010-2012


\textsuperscript{87} Information from the Implementation Questionnaire for the 2004-2006 period, as referred back to in the Member State Implementation Questionnaire in 2010-2012
a surcharge for the final consumer, in accordance with the Community’s “polluter pays” principle.

In Latvia, a tax on packaging is applied. This tax, the Law on Natural Resources Tax, is levied according to the packaging weight and creates an incentive for packagers to reduce packaging weight. Given that the tax rate is differentiated according to the type of packaging material, packagers are also encouraged to use materials that are more environmentally friendly and recyclable.

In Lithuania, a broad range of taxes, including fines for non-compliance have been implemented and act as economic instruments helping to attain the targets set in the directive. These include a tax on environmental pollution by packaging waste which is payable where a producer or importer misses the targets for packaging reuse or waste management. In addition Article 51 (12) of the Administrative Infringements Code “Failure to meet requirements regarding the management of packaging and taxable products and of waste resulting therefrom” lays down fines for failure to fulfil obligations regarding packaging containing more than the maximum amount of harmful substances, failure to keep records of packaging and packaging waste, failure to provide information explaining how customers can return packaging or failure to provide a deposit for reusable glass packaging.

Particular attention was focussed in Lithuania on applying economic measures with a view to improving packaging waste management: amendments to the Law on waste management have been adopted, fines have been established, and the Lithuanian Government approved the Methodology for calculating the amount of fees or other contributions payable for the collection of municipal waste from waste holders and for waste management, requiring local authorities to apply differentiated rates. Finally, the possibility of introducing a mandatory deposit for the use of disposable drinks packaging is being considered. Whilst these measures were mentioned in the 2010-2012 Implementation Questionnaire they have been implemented in the period 2013-2015 and thus present a notable change for Lithuania in this respect.

Malta reported that no further economic instruments have been adopted at a national level since 2010-2012. In 2010-2012 Malta reported on economic instruments which included the Eco- Contribution Act, enacted in September 2004. The main objective of this Act is to provide levying of an eco-contribution on products which generate end-of-life products or waste, with the ultimate aim of ensuring better disposal, re-use, or recycling management. In addition, other Eco- Contribution regulations were approved in 2008 (Approved Waste Recovery Facilities), in 2010 (Exemptions) and 2011 (Granting of Refunds).

The Netherlands responded “No” and did not elaborate on this answer. However the Netherlands was highlighted in the previous reporting period for good practice with regard to economic instruments. This was for having a tax on packaging introduced in
2008 which set a level based on the environmental impact of the material. It is understood that this tax has been revoked since the last reporting period.  

In **Poland**, a system of product charges, which apply if a business fails to achieve the required recovery and recycling rates for packaging waste, has been introduced. These charges are calculated from the difference between the required recovery or recycling rate and the rate actually achieved. A penalty for failing to fulfil statutory obligations is imposed by Polish legislation.

In **Portugal**, legislation ensures accountability of the economic operators involved in the life cycle of the packaging through the extended producer responsibility principle. Municipalities and manufacturers have legal roles and responsibilities accordingly. Management bodies charge a financial contribution to economic operators who place non-reusable packaging on the market and prefer to fulfil the extended producer responsibility principle by passing it on to an adequately licensed management body. This generates the financial resources needed for the functioning of the integrated system, which has the aim of supporting the costs of collection and sorting of recyclable material.

There are also economic instruments which contribute to complying with environmental objectives, in order to reduce the production of waste and treat it more efficiently. One example worth highlighting is the waste management tax (‘taxa de gestão de resíduos’ - TGR). Management bodies must pay the TGR to encourage them to meet their individual targets, this leads to meeting of national targets.

In **Romania**, economic operators have to apply a deposit system to ensure the re-use of their reusable packaging (Eionet 2009). Eco-Rom Ambalaje (ERA) is the representative of the "Green Dot" system and one of the main national recovery organisations. ERA is financed by the contribution of licensees. A fee is paid based on the quantity and type of packaging material placed on the market. According to GE Order No. 196/2005, as amended, all economic operators which place packaged products and packaging on the national market are required to pay a tax to the Environmental Fund. The tax is paid on an annual basis, in case the economic operator does not meet the annual target for the recovery of packaging waste. Since January 2009, the GE Order No. 25/2008, amending GE Order 196/2005 on the Environment Fund, sets a tax of RON 0.2

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90 Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2007-2009

for each type of bag made of non-biodegradable material. The tax is collected from economic operators which place such bags on the market.

In **Slovakia**, according to Decree No. 91/2011 Coll. liable operators have to meet the targets for packaging waste recovery and recycling. Sanctions are in place for operators that do not meet these targets. In addition, liable operators are also obliged to financially contribute to the recycling fund according to the procedure defined by Act No. 223/2001 Coll., as amended. The Fund financially supports the collection, recovery and recycling of packaging waste. 92

**Slovenia** has adopted the Decree on environmental tax on the generation of packaging waste (Official Gazette of the Republic of Slovenia Nos. 32/06, 65/06, 78/08, 19/10).

In **Spain**, in application of extended producer responsibility, packaging companies are required to fund integrated management systems through payment of a specified amount per packaged product placed on the national market for the first time. Integrated management systems for packaging waste and used packaging have to fund the difference in cost between the ordinary system for the collection, transportation and treatment of urban solid waste in a controlled facility, pursuant to Law 42/1975 of the 19th of November 1975, and the management system governed in this section, including depreciation and the financial burden of the necessary investment in moving equipment and infrastructure.

Additionally, taxes have been applied to deposits made at waste disposal facilities in certain autonomous communities. While this is not specific for packaging waste, the tax does have an indirect impact of increasing recovery of packaging waste. Andalusia and Cantabria have also imposed a tax on bag consumption and in Catalonia, subsidies have been awarded for encouraging separate collection.

In **Sweden**, there is a deposit system which works to encourage consumers to return their bottles and cans. Operated by Returpack, a recycling company co-owned by the drinks companies and brewers, the Swedish deposit return scheme sees a small deposit added to the cost of drinks which is refunded when the container is returned. Implementation of the scheme has resulted in recycling rates of more than 90 per cent for drinks containers. These are then made into new containers or, in the case of some of the plastic bottles, into clothing, bags and other goods.

In the **United Kingdom**93, the Producer Responsibility Obligations (Packaging Waste) Regulations have established a market based mechanism for the achievement of the Directive targets. Businesses must obtain evidence to comply with their legal obligations in the form of Packaging Waste Recovery Notes (PRNs) and Packaging Waste Export Recovery Notes (PERNs). These evidence notes are issued by accredited packaging waste

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92 It is worth noting that the Slovakian recycling fund is no longer active, this has been the case since the 31st of December 2016 which is outside the scope of the reporting period.

93 Response provided by the Member State to the Packaging and Packaging Waste Implementation Questionnaire 2007-2009
re-processors and exporters. An accredited entity can issue PRNs/PERNs to the amount of packaging waste reprocessed. The evidence notes are a ‘counting tool’ for the amount of recovery/recycling undertaken and channel producer funding to recycling/recovery operations. The PRN/PERN for each material has a market price reflecting the relative state of the recycled market (for that material), the market structure, the regulation of the market, and the extent of any constraints in the infrastructure for collections and reprocessing.94

**Conclusion:**

Most Member States (24) reported having implemented economic instruments and provided details of the measures in their Implementation Questionnaires for 2013-15 or previous periods. Five Member States reported not having implemented economic instruments. The most common measures are taxes levied on packaging, deposit/return schemes for packaging, charges for final disposal of packaging, financial sanctions if re-use and recovery targets are not met, and obligations for economic operators to bear collection and recovery costs.

Fewer Member States, 24 compared to 25, reported having implemented economic instruments in this reporting period. The Netherlands is the Member State whose response has changed. They were highlighted in the last reporting period for good practice while in 2013-2015 report having no economic instruments in place. Malta reported that “No further economic instruments have been adopted” and so its 2010-2012 response is used.

Cyprus, Ireland and Luxembourg have reported that they have not implemented economic instruments in accordance with Article 15 to attain the targets set in the Directive in 2013-2015, without providing additional information. However, note that the Directive provides an option but not an obligation to use economic instruments.

As in some earlier sections of this report, Member State responses to this question were varied and as such a number of responses will be discussed which constitute good practice, rather than a select few. In terms of good practice, the list of most common measures described above all constitute good practice for economic instruments adopted to attain the targets set in the directive.

Most Member States discussed the use of taxes, the form of tax used however varied. Bulgaria and Hungary both discussed product taxes which are charged to companies placing packaged goods on the market. In Bulgaria, this tax contains provisions for sanctions against economic operators who do not meet their recovery obligations. In Finland, a tax is applied to all beverages sold in retail packages which items may be exempt from if they are reusable or recyclable and belonging to a deposit system.

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94 Valpak A Quick Guide to Packaging Legislation in Hungary [https://www.valpak.co.uk/docs/default-source/international-compliance/hungary-packaging---07-09](https://www.valpak.co.uk/docs/default-source/international-compliance/hungary-packaging---07-09)
In the tax systems applied in both Italy and Latvia, the level of tax on packaging is levied taking into account how environmentally damaging the material is. In Latvia, the “Law on Natural Resources tax” is levied according both to packaging weight, and to packaging material, favouring materials which are more environmentally friendly and recyclable. In Italy the levy is aimed at supporting the costs of separate collection, recovery and recycling of packaging waste. This bears similarity to the systems in France and Germany where it is packaging producers who contribute to the management, collection and recovery of household packaging waste.

Deposit and return systems have also been discussed as economic instruments used to attain the targets. Sweden detailed a deposit system which works to encourage consumers to return bottles and cans. This system has resulted in recycling rates of 90% for drinks containers. Lithuania, in its response, discussed plans to develop a deposit and return system.
4.0 Quantities of Packaging Waste, Recovery and Recycling Rates

4.1 Introduction

The following sections contain tables on packaging and packaging waste generation and recovery and recycling rates as a percentage of packaging waste generated. This data was submitted to Eurostat by the Member States for the 2013-2015 reporting period. Based on some recently completed analyses, some uncertainties around the reported recovery and recycling rates in some Member States should be highlighted. There is an indication that some reported amounts of packaging waste generated may be too high. The possible reasons include de minimus thresholds excluding reporting from smaller companies, on-line sales through which goods and associated packaging are imported but are not accounted for, and free-riders who place packaging on the market and do not register this with any compliance scheme, either by mistake or on purpose to avoid paying fees to the compliance schemes. These issues are explored in some detail in a study for the European Commission on the gaps and weaknesses in the European waste statistical system, and also in the Early Warning Study where some comparisons are made between different datasets.95,96

4.2 Packaging Waste Generation

Between 2013 and 2015, the amount of packaging waste generated increased by 5.9% across the EU28. A total of 79,581,375 tonnes were recorded in 2013 and this increased to 84,262,638 tonnes in 2015. By comparison, the overall quantity of packaging waste generated decreased by 1% during 2010-2012. This is likely to have been due to the contraction of the economy in many Member States; decreased consumption of goods would have led to lower demand for packaging.

Table 4-1: Packaging Waste Generated (in tonnes)

<table>
<thead>
<tr>
<th>Member State</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>1,271,696</td>
<td>1,303,528</td>
<td>1,311,246</td>
</tr>
<tr>
<td>Belgium</td>
<td>1,738,288</td>
<td>1,741,867</td>
<td>1,751,143</td>
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</table>

96 Eunomia (2018) Study to Identify Member States at Risk of Non-Compliance with the 2020 Target of the Waste Framework Directive and to Follow-up Phase 1 and 2 of the Compliance Promotion Exercise, Final Report for DG Environment
<table>
<thead>
<tr>
<th>Member State</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulgaria</td>
<td>350,043</td>
<td>378,668</td>
<td>392,547</td>
</tr>
<tr>
<td>Croatia</td>
<td>198,570</td>
<td>204,708</td>
<td>215,534</td>
</tr>
<tr>
<td>Cyprus</td>
<td>78,703</td>
<td>73,047</td>
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<td>Czech Republic</td>
<td>1,005,749</td>
<td>1,019,805</td>
<td>1,087,761</td>
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<tr>
<td>Denmark</td>
<td>893,073</td>
<td>923,026</td>
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<tr>
<td>Estonia</td>
<td>223,928</td>
<td>227,808</td>
<td>226,430</td>
</tr>
<tr>
<td>Finland</td>
<td>716,686</td>
<td>731,893</td>
<td>713,814</td>
</tr>
<tr>
<td>France</td>
<td>12,130,056</td>
<td>12,473,429</td>
<td>12,468,755</td>
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<td>Germany</td>
<td>17,126,900</td>
<td>17,777,700</td>
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<td>749,300</td>
<td>747,900</td>
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<td>870,109</td>
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<td>Italy</td>
<td>11,462,983</td>
<td>11,962,324</td>
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<tr>
<td>Latvia</td>
<td>229,318</td>
<td>221,614</td>
<td>233,356</td>
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<td>Lithuania</td>
<td>319,744</td>
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<td>Luxembourg</td>
<td>112,007</td>
<td>108,576</td>
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<td>Malta</td>
<td>57,032</td>
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<td>Netherlands</td>
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<td>Poland</td>
<td>4,826,420</td>
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<td>Portugal</td>
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<td>Slovenia</td>
<td>200,396</td>
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<td>Member State</td>
<td>2013</td>
<td>2014</td>
<td>2015</td>
</tr>
<tr>
<td>----------------------</td>
<td>---------</td>
<td>---------</td>
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<tr>
<td>Spain</td>
<td>6,695,844</td>
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<td>11,476,321</td>
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<td>EU28</td>
<td>79,581,375</td>
<td>82,803,388</td>
<td>84,262,638</td>
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</tbody>
</table>

Source: Eurostat (2017)97

4.3 Overall Recovery and Recycling

4.3.1 Overall Recovery and Recycling Rates

Table 4-2 provides the recovery and recycling rates for each Member State. This is presented as a percentage of packaging waste generated.

In terms of recovery rate, seven Member States reported rates upwards of 90%. These were Austria, Belgium, Finland, Germany, Ireland, Luxembourg, and the Netherlands. Finland reported the highest recovery rate (102.2% for 2015). The figure for Finland being greater than 100% could be due to recovering material in 2015, such as wood, that was put on the market (PoM) in 2014 or through PoM figures being too low. Four Member States reported recycling rates above 70%. These were Belgium, the Czech Republic, the Netherlands and Sweden. Belgium reported the highest recycling rate (81.5% for 2015).

In the EU28 as a whole, the recycling rate for packaging waste increased marginally from 65.3% in 2013 to 65.4% in 2015. However, the figure reported for 2014 was the highest at 65.5%. The rate of recovery fell slightly over the same period from 79.2% in 2013 to 78.7% in 2015.  

With regards to recovery rates for 2015 (or 2014, where 2015 data is not yet available), Cyprus (58.7%), Greece (54.3%), Hungary (58.1%), Romania (56.4%), and Malta (41.3%) (5) did not meet the recovery target of 60%. The remaining 23 Member States met the recovery target of 60% in the 2013-2015 period.

With regards to recycling rate, Greece (53.8%), Hungary (50.1%), Latvia (53.9%), Malta (41.1%) and Romania (54.8%) fell short of the 55% recycling target in 2015. The remaining 23 Member States all met the 55% recycling target in the 2013-2015 period.

Some Member States which were granted derogations reported figures compliant with the recovery and recycling targets (see Table 4-3). Within the scope of this reporting period (2013-2015), Malta and Latvia did not achieve their derogation targets for recycling, and Malta also missed its recovery target.

Table 4-2: Total Recovery and Recycling Rates (%)

<table>
<thead>
<tr>
<th>Member State</th>
<th>Total Recovery</th>
<th>Total Recycling</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>96.1</td>
<td>96.2</td>
</tr>
<tr>
<td>Belgium</td>
<td>96.6</td>
<td>99.2</td>
</tr>
</tbody>
</table>

---

98 including incineration at waste incineration plants with energy recovery
<table>
<thead>
<tr>
<th>Member State</th>
<th>Total Recovery</th>
<th>Total Recycling</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Bulgaria</strong></td>
<td>66</td>
<td>62.2</td>
</tr>
<tr>
<td><strong>Croatia</strong></td>
<td>58.8</td>
<td>52.8</td>
</tr>
<tr>
<td><strong>Cyprus</strong></td>
<td>56.6</td>
<td>58.7</td>
</tr>
<tr>
<td><strong>Czech Republic</strong></td>
<td>74.7</td>
<td>78.6</td>
</tr>
<tr>
<td><strong>Denmark</strong></td>
<td>93.4</td>
<td>89.5</td>
</tr>
<tr>
<td><strong>Estonia</strong></td>
<td>77.7</td>
<td>82</td>
</tr>
<tr>
<td><strong>Finland</strong></td>
<td>93.2</td>
<td>98.3</td>
</tr>
<tr>
<td><strong>France</strong></td>
<td>75.4</td>
<td>74.6</td>
</tr>
<tr>
<td><strong>Germany</strong></td>
<td>97.7</td>
<td>97.8</td>
</tr>
<tr>
<td><strong>Greece</strong></td>
<td>52.8</td>
<td>54.3</td>
</tr>
<tr>
<td><strong>Hungary</strong></td>
<td>60.3</td>
<td>59.7</td>
</tr>
<tr>
<td><strong>Ireland</strong></td>
<td>88.1</td>
<td>92.6</td>
</tr>
<tr>
<td><strong>Italy</strong></td>
<td>76.5</td>
<td>76.4</td>
</tr>
<tr>
<td><strong>Latvia</strong></td>
<td>54.5</td>
<td>58.4</td>
</tr>
<tr>
<td><strong>Lithuania</strong></td>
<td>53.9</td>
<td>57.9</td>
</tr>
<tr>
<td><strong>Luxembourg</strong></td>
<td>91.8</td>
<td>96.1</td>
</tr>
<tr>
<td><strong>Malta</strong></td>
<td>38.2</td>
<td>41.3</td>
</tr>
<tr>
<td><strong>Netherlands</strong></td>
<td>94.2</td>
<td>94.2</td>
</tr>
<tr>
<td><strong>Poland</strong></td>
<td>50.4</td>
<td>60</td>
</tr>
<tr>
<td><strong>Portugal</strong></td>
<td>64.8</td>
<td>64.1</td>
</tr>
<tr>
<td><strong>Romania</strong></td>
<td>54.5</td>
<td>56.4</td>
</tr>
<tr>
<td><strong>Slovakia</strong></td>
<td>69.5</td>
<td>68</td>
</tr>
<tr>
<td>Member State</td>
<td>Total Recovery</td>
<td>Total Recycling</td>
</tr>
<tr>
<td>--------------</td>
<td>----------------</td>
<td>----------------</td>
</tr>
<tr>
<td>Slovenia</td>
<td>92.5</td>
<td>88.1</td>
</tr>
<tr>
<td>Spain</td>
<td>73.1</td>
<td>75</td>
</tr>
<tr>
<td>Sweden</td>
<td>78.2</td>
<td>77.9</td>
</tr>
<tr>
<td>UK</td>
<td>72.7</td>
<td>64.1</td>
</tr>
<tr>
<td>EU28</td>
<td>79.2</td>
<td>78.7</td>
</tr>
</tbody>
</table>

Source: Eurostat (2017) ⁹⁹

Table 4-3: Recovery and Recycling Targets Achievements by Member States

<table>
<thead>
<tr>
<th>Member State</th>
<th>Latest date to achieve the targets of Article 6 (1) (b) (d) and (e)</th>
<th>Which MS did not achieve recovery target of 60% by weight</th>
<th>Which MS did not achieve recycling target of 55% by weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria, Belgium, Denmark, Finland, France, Germany, Italy, Luxembourg, the Netherlands, Spain, Sweden, the United Kingdom</td>
<td>31.12.2008</td>
<td>All these MS achieved the targets</td>
<td>All these MS achieved the targets</td>
</tr>
<tr>
<td>Greece, Ireland and Portugal</td>
<td>31.12.2011</td>
<td>Greece (54.3%)</td>
<td>Greece (53.8%)</td>
</tr>
<tr>
<td>Cyprus, the Czech Republic, Estonia, Hungary, Lithuania, Slovakia, Slovenia</td>
<td>31.12.2012</td>
<td>Hungary (51.8%), Cyprus (58.7%)</td>
<td>Hungary (50.1%),</td>
</tr>
<tr>
<td>Malta</td>
<td>31.12.2013</td>
<td>Malta (41.3%)</td>
<td>Malta (41.1%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Member State</th>
<th>Latest date to achieve the targets of Article 6 (1) (b) (d) and (e)</th>
<th>Which MS did not achieve recovery target of 60% by weight</th>
<th>Which MS did not achieve recycling target of 55% by weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poland</td>
<td>31.12.2014</td>
<td>Achieved target</td>
<td>Achieved target</td>
</tr>
<tr>
<td>Latvia</td>
<td>31.12.2015</td>
<td>Achieved target</td>
<td>53.9%</td>
</tr>
</tbody>
</table>

Source: Eurostat (2017)\textsuperscript{100}

Romania and Bulgaria have previously been allocated special derogations detailed below. These continued into this reporting period and Bulgaria achieved higher rates than the established targets as outlined in Table 4-4. For Romania, data for 2015 was not yet available, so the most recent data displayed is from 2014.

For Bulgaria, the following targets applied:

- The overall rate for recovery or incineration at waste incineration plants with energy recovery by 31\textsuperscript{st} December 2014 should be: 48% by weight for 2010, 50% by weight for 2011, 53% for 2012 and 56% for 2013.

- The overall recycling target by 31\textsuperscript{st} December 2014 should be: 34% by weight by 31\textsuperscript{st} December 2006, 38% for 2007, 42% for 2008, 45% for 2009, 47% for 2010, 49% for 2011, 52% for 2012 and 54.9% for 2013.

- Beyond these derogations, Bulgaria was required to meet the standard EU targets for recycling and recovery rate in 2014.\textsuperscript{101}

In 2013, Bulgaria exceeded its derogation targets for both recovery and recycling. It reported 66% recovery and 65.7% recycling. In 2015 Bulgaria met and exceeded the standard EU targets.

For Romania, the following targets applied:

- The overall rate for recovery or incineration at waste incineration plants with energy recovery by 31\textsuperscript{st} December 2013 should be: 48% by weight for 2010, 53% for 2011 and 57% for 2012.


\textsuperscript{101} Eurostat, E.C. First and second stage targets and the years in which they must be achieved - Statistics Explained, accessed 18 January 2018, http://ec.europa.eu/eurostat/statistics-explained/index.php/File:First_and_second_stage_targets_and_the_years_in_which_they_must_be_achieved.png
• The overall recycling target by 31st December 2013 should be: 26% by weight by 31st December 2006, 28% for 2007, 33% for 2008, 38% for 2009, 42% for 2010, 46% for 2011 and 50% for 2012.

• Beyond these derogations Romania was required to meet the standard EU targets for recycling and recovery rate in 2013.102

In 2014, Romania fell slightly short of the 55% recycling target, achieving 54.8% and missed the 60% recovery target, achieving 56.4%.

Table 4-4 - Recovery and Recycling Rates Achieved by Bulgaria and Romania (% of Packaging Waste Generated)

<table>
<thead>
<tr>
<th>Member State</th>
<th>Total Recovery %</th>
<th>Total Recycling %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulgaria</td>
<td>66</td>
<td>62.2</td>
</tr>
<tr>
<td>Romania</td>
<td>54.5</td>
<td>56.4</td>
</tr>
</tbody>
</table>

Source: Eurostat (2017) 103

In general, recycling rates have improved slightly between 2013 and 2015. Across the EU28, the total recycling rate increased by 0.1%. However the following Member States reported a decrease in recycling rates: Bulgaria, Denmark, France, Germany, Ireland, Italy, Luxembourg, Portugal, Slovakia, Slovenia, Sweden and the United Kingdom. A total of 23 Member States achieved the 55% by weight recycling target. This is an increase on the 2010-2012 reporting period when 22 Member States met the target. In the 2013-2015 reporting period, Croatia and Poland met the 55% recycling rate target for the first time. Poland had a derogation until 2014 and Croatia reported for the first time. Greece who met the 55% target in the 2010-2012 reporting period failed to meet it in 2015. The Member States who did not meet the target in this period were Greece, Hungary, Latvia, Malta and Romania (5).

Similarly, recovery rates have slightly improved for 18 Member States between 2013 and 2015. The exceptions were Bulgaria, Denmark, Germany, Hungary, Italy, Portugal, Slovakia, Slovenia, Spain, and the United Kingdom where recovery rates decreased, in

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102 Eurostat, E.C. First and second stage targets and the years in which they must be achieved - Statistics Explained, accessed 18 January 2018, http://ec.europa.eu/eurostat/statistics-explained/index.php/File:First_and_second_stage_targets_and_the_years_in_which_they_must_be_achieved.png

some cases very slightly, in the years covered by this reporting period. Across the EU28 the total recovery rate decreased by 0.5%.

21 Member States which provided data for 2015 achieved the 60% by weight recovery target. These were Austria, Belgium, Bulgaria, Croatia, the Czech Republic, Estonia, Finland, France, Germany, Ireland, Latvia, Lithuania, Luxembourg, the Netherlands, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden and the United Kingdom. Denmark and Italy also achieved the 60% by weight recovery target but most recently reported in 2014.

Thus a total of 23 Member States met the 60% target for recovery in the reporting period. This is an increase from 19 Member States who met the target for recovery in the 2010-2012 period. Latvia and Portugal met the target in the 2013-2015 period but not in the 2010-2012 period. Croatia provided data for the first time in 2013-2015 and Poland had derogation targets until 2014 and thus was not required to meet the targets in the previous reporting period. Cyprus, Greece, Hungary, Malta, and Romania (5) were the Member States which failed to meet the target.
### 4.3.2 Material Specific Recycling

The achievements of Member States in 2013, 2014, and 2015 with regard to material specific recycling targets are shown in Table 4-5.

**Table 4-5: Achievement of Material Specific Recycling Targets by Member States**

<table>
<thead>
<tr>
<th>Member State</th>
<th>Latest date to achieve the targets of Article 6 (1) (b) (d) and (e)</th>
<th>MS that did not achieve recycling target of 60% by weight for glass</th>
<th>MS that did not achieve recycling target of 60% by weight for paper and board</th>
<th>MS that did not achieve recycling target of 22.5% by weight for plastics</th>
<th>MS that did not achieve recycling target of 15% by weight for wood</th>
<th>MS that did not achieve recycling target of 50% by weight for metals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria, Belgium, Denmark, Finland, France, Germany, Italy, Luxembourg, the Netherlands, Spain, Sweden, the United Kingdom</td>
<td>31.12.2008</td>
<td>All these MS achieved the targets</td>
<td>All these MS achieved the targets</td>
<td>All these MS achieved the targets</td>
<td>Finland 12.5% (2015)</td>
<td>All these MS achieved the targets</td>
</tr>
<tr>
<td>Greece, Ireland and Portugal</td>
<td>31.12.2011</td>
<td>Greece: 21.5% in 2014 Portugal: 55.2% in 2015</td>
<td>All these MS achieved the targets</td>
<td>All these MS achieved the targets</td>
<td>All these MS achieved the targets</td>
<td>All these MS achieved the targets</td>
</tr>
<tr>
<td>Cyprus, the Czech Republic, Estonia, Hungary, Lithuanian, Slovakia, Slovenia</td>
<td>31.12.2012</td>
<td>Cyprus: 32.2% in 2014 Hungary: 50.5% in 2015</td>
<td>All these MS achieved the targets</td>
<td>All these MS achieved the targets</td>
<td>Cyprus 11.5% (2014)</td>
<td>All these MS achieved the target</td>
</tr>
<tr>
<td>Member State</td>
<td>Latest date to achieve the targets of Article 6 (1) (b) (d) and (e)</td>
<td>MS that did not achieve recycling target of 60% by weight for glass</td>
<td>MS that did not achieve recycling target of 60% by weight for paper and board</td>
<td>MS that did not achieve recycling target of 22.5% by weight for plastics</td>
<td>MS that did not achieve recycling target of 15% by weight for wood</td>
<td>MS that did not achieve recycling target of 50% by weight for metals</td>
</tr>
<tr>
<td>--------------</td>
<td>---------------------------------------------------------------</td>
<td>---------------------------------------------------------------</td>
<td>---------------------------------------------------------------</td>
<td>---------------------------------------------------------------</td>
<td>---------------------------------------------------------------</td>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>Poland</td>
<td>31.12.2014</td>
<td>57.2% in 2015</td>
<td>Achieved the target</td>
<td>Achieved the target</td>
<td>Achieved the target</td>
<td>Achieved the target</td>
</tr>
<tr>
<td>Latvia</td>
<td>31.12.2015</td>
<td>Achieved the target</td>
<td>Achieved the target</td>
<td>Achieved the target</td>
<td>Achieved the target</td>
<td>Achieved the target</td>
</tr>
<tr>
<td>Romania104</td>
<td>31.12.2013 (b), (d), (e)(i) and (e)(iv)</td>
<td>54.2% in 2014</td>
<td>Achieved the target</td>
<td>Achieved the target</td>
<td>Achieved the target</td>
<td>Achieved the target</td>
</tr>
<tr>
<td></td>
<td>31.12.2011 (e)(v)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Member State</th>
<th>Latest date to achieve the targets of Article 6 (1) (b) (d) and (e)</th>
<th>MS that did not achieve recycling target of 60% by weight for glass</th>
<th>MS that did not achieve recycling target of 60% by weight for paper and board</th>
<th>MS that did not achieve recycling target of 22.5% by weight for plastics</th>
<th>MS that did not achieve recycling target of 15% by weight for wood</th>
<th>MS that did not achieve recycling target of 50% by weight for metals</th>
</tr>
</thead>
</table>

Source: Eurostat (2017).[^105]

At EU level, the recycling rates for specific packaging materials have increased between 2013 and 2015 for all materials other than paper and cardboard. Table 4-6 and Table 4-7 present the recycling rates by Member State for 2013-2015 as a percentage of packaging waste generated and by material type. Table 4-8 presents the composition of packaging waste by material type as a percentage of packaging waste generated.

**Table 4-6: Recycling of Packaging Waste (% of Packaging Waste Generated)**

<table>
<thead>
<tr>
<th>Member State</th>
<th>Paper and Cardboard</th>
<th>Plastic</th>
<th>Wood</th>
<th>Metals</th>
<th>Glass</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>84.3</td>
<td>84.9</td>
<td>84.9</td>
<td>34.4</td>
<td>33.6</td>
</tr>
<tr>
<td>Belgium</td>
<td>89.1</td>
<td>90.6</td>
<td>90.7</td>
<td>39</td>
<td>41.8</td>
</tr>
<tr>
<td>Bulgaria</td>
<td>88.8</td>
<td>70.1</td>
<td>78.7</td>
<td>41.3</td>
<td>64.1</td>
</tr>
<tr>
<td>Croatia</td>
<td>88.2</td>
<td>76.9</td>
<td>89.4</td>
<td>45.3</td>
<td>37.7</td>
</tr>
<tr>
<td>Cyprus</td>
<td>97.3</td>
<td>96.7</td>
<td>N/A</td>
<td>45.3</td>
<td>46.6</td>
</tr>
<tr>
<td>Czech Republic</td>
<td>87.6</td>
<td>88.6</td>
<td>90.1</td>
<td>59.7</td>
<td>58.2</td>
</tr>
<tr>
<td>Denmark</td>
<td>85.4</td>
<td>85.9</td>
<td>N/A</td>
<td>29.1</td>
<td>30.4</td>
</tr>
</tbody>
</table>

---

<table>
<thead>
<tr>
<th>Member State</th>
<th>Paper and Cardboard</th>
<th>Plastic</th>
<th>Wood</th>
<th>Metals</th>
<th>Glass</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estonia</td>
<td>75.5</td>
<td>74.2</td>
<td>76.3</td>
<td>28.1</td>
<td>29.3</td>
</tr>
<tr>
<td>Finland</td>
<td>97.6</td>
<td>101.2</td>
<td>111.6</td>
<td>22.7</td>
<td>24.6</td>
</tr>
<tr>
<td>France</td>
<td>95.8</td>
<td>94.1</td>
<td>92</td>
<td>25.6</td>
<td>25.2</td>
</tr>
<tr>
<td>Germany</td>
<td>88.2</td>
<td>87.3</td>
<td>85.7</td>
<td>49.4</td>
<td>50.2</td>
</tr>
<tr>
<td>Greece</td>
<td>79.7</td>
<td>79.1</td>
<td>N/A</td>
<td>32.3</td>
<td>32.8</td>
</tr>
<tr>
<td>Hungary</td>
<td>78.3</td>
<td>66.2</td>
<td>75.8</td>
<td>30.8</td>
<td>36.8</td>
</tr>
<tr>
<td>Ireland</td>
<td>79.1</td>
<td>79.4</td>
<td>79.7</td>
<td>40.1</td>
<td>35.4</td>
</tr>
<tr>
<td>Italy</td>
<td>84.6</td>
<td>78.7</td>
<td>N/A</td>
<td>36.8</td>
<td>38</td>
</tr>
<tr>
<td>Latvia</td>
<td>74.7</td>
<td>81.5</td>
<td>77.5</td>
<td>24.5</td>
<td>36.4</td>
</tr>
<tr>
<td>Lithuania</td>
<td>87.3</td>
<td>89.1</td>
<td>87.2</td>
<td>42.9</td>
<td>51.2</td>
</tr>
<tr>
<td>Luxembourg</td>
<td>74.4</td>
<td>77.4</td>
<td>74.7</td>
<td>32.2</td>
<td>36.9</td>
</tr>
<tr>
<td>Malta</td>
<td>48.4</td>
<td>55.5</td>
<td>N/A</td>
<td>22.6</td>
<td>32.9</td>
</tr>
<tr>
<td>Netherlands</td>
<td>88.2</td>
<td>85.9</td>
<td>85.5</td>
<td>46.6</td>
<td>50.6</td>
</tr>
</tbody>
</table>

25/06/2018
<table>
<thead>
<tr>
<th>Member State</th>
<th>Paper and Cardboard</th>
<th>Plastic</th>
<th>Wood</th>
<th>Metals</th>
<th>Glass</th>
</tr>
</thead>
<tbody>
<tr>
<td>Poland</td>
<td>50</td>
<td>72.8</td>
<td>77.6</td>
<td>20</td>
<td>28.6</td>
</tr>
<tr>
<td>Portugal</td>
<td>73.4</td>
<td>69.1</td>
<td>62.2</td>
<td>35.3</td>
<td>40</td>
</tr>
<tr>
<td>Romania</td>
<td>74.6</td>
<td>83.4</td>
<td>N/A</td>
<td>51.7</td>
<td>44.5</td>
</tr>
<tr>
<td>Slovakia</td>
<td>79.7</td>
<td>79.9</td>
<td>76.8</td>
<td>55.1</td>
<td>55.9</td>
</tr>
<tr>
<td>Slovakia</td>
<td>78.7</td>
<td>80.4</td>
<td>75.6</td>
<td>81.7</td>
<td>69.4</td>
</tr>
<tr>
<td>Spain</td>
<td>75</td>
<td>78.2</td>
<td>76.9</td>
<td>40.7</td>
<td>42.5</td>
</tr>
<tr>
<td>Sweden</td>
<td>78.4</td>
<td>79.3</td>
<td>81.7</td>
<td>45.6</td>
<td>47.5</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>89.4</td>
<td>73.1</td>
<td>77.2</td>
<td>31.6</td>
<td>37.9</td>
</tr>
<tr>
<td>EU28</td>
<td>84.7</td>
<td>82.5</td>
<td>82.6</td>
<td>37.2</td>
<td>39.5</td>
</tr>
</tbody>
</table>

Source: Eurostat (2017).}\(^{107}\)

---

<table>
<thead>
<tr>
<th>Member State</th>
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Table 4-7: Recycling of Packaging Waste (% of Packaging Waste Generated) - Part 2
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Source: Eurostat (2017).\textsuperscript{108}

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*Source: Eurostat (2017)*[^109]

4.3.3 Further Analysis on the Member States Missing the Targets

This section has been provided to give further analysis on the Member States who did not achieve the targets set for recovery and recycling of packaging and packaging waste in 2015. The graphs in Figure 4-1 and Figure 4-2 demonstrate the recovery and recycling rates achieved by these Member States and shortfall to the required target. As such, it is evident that for some of these MSs the target was only missed by a small margin, however for others such as Malta, the gap is more significant. Moreover, it should be noted that, due to the data issues referred to at the start of Section 4.0, it may be that some Member States who currently report compliance with the PPWD targets could in fact be missing them as the figures for the amount of packaging placed on the market are too low.

To understand the cause of these shortfalls, the policies and instruments reported by each Member State missing the overall targets are reviewed.

For Cyprus the recovery rate target of 60% was not met, with a rate of 58.7% achieved. As no specific question is provided on measures which encourage recovery it is difficult to comment on why Cyprus has failed to meet the 60% target. However, Cyprus responded “No” to question 3.9 which asked whether economic instruments had been adopted to attain the targets set in the Directive. Further detail was not provided by the Member State on this answer. Cyprus, also failed to meet the material specific recycling targets for glass (achieving a 32.2% recycling rate) and wood (achieving an 11.5% recycling rate).

For Greece, both the recovery target of 60% and the recycling target of 55% were not met, with 54.3% and 53.8% achieved for recovery and recycling respectively. Further, Greece failed to meet the specific 60% recycling target for glass, managing a 21.5% recycling rate in 2014.

Greece responded “No” to question 3.2 about measures to encourage reuse but noted that reuse systems are common for some specific types of packaging such as beer and soft drink bottles. In response to question 3.3, Greece stated that measures have been taken to set up return systems. The response elaborated that extended producer responsibility schemes have been established which organise the management of packaging and packaging waste. Such schemes were further discussed when responding to 3.9 regarding economic instruments. Producer contributions to the scheme are based on their market share and the aim is to cover the costs of collection, transport and recovery including recycling and development of infrastructure.

Greece is likely to have missed the recovery and recycling targets for packaging waste as the waste management sector in Greece faces problems in terms of implementation. The lack of necessary infrastructure for source separation of recyclables, citizens’ low levels of awareness around recycling, the lack of financial incentives, and the absence of economic instruments could all explain the low, and stable, performance of national recycling between the years 2010 and 2015 and specifically the low packaging
performance.\textsuperscript{110} The economic recession and the subsequent financial crisis in Greece has also influenced the waste sector leading to a decrease in waste generation but also to an intensive presence of informal recycling in recent years. Since 2010 there has been a notable expansion of the EPR schemes for collection of recyclables, however, performance is still low.\textsuperscript{111}

The Hellenic Recovery Recycling Cooperation (HERRCo), the EPR organisation responsible for packaging waste, reports that the drop in the collected amounts of packaging materials from the blue bin system can be explained by:

- Reduced collection services performed by cooperating municipalities, mainly due to financial difficulties (e.g. shortage of workers). This is a significant issue in the Attica region where from 2010 – 2014, recycling collection routes decreased by 30%;
- Issues with collections of the blue bin in some municipalities have caused interruption to the recycling system. Moreover, a small number of municipalities recorded (through public complaints) the collection of both residual and recycling waste in the same vehicle, leading citizens to doubt the recycling system;
- The cancellation of HERRCO’s Business Plan for 2009-2014 and cost cutting measures taken during the economic crisis (e.g. reduction of costs for promoting recycling); and,
- Co-mingled packaging waste collection not being a door-to-door scheme (there is not one bin per block of flats, let alone one per house). The network of bins has been planned with a ratio of one bin per 75 residents. Only very few cities across the country have started a door-to-door packaging waste collection.

In addition, a landfill tax was introduced through Law 4042/2012, and was meant to enter into force on the 1\textsuperscript{st} of January 2014, but its implementation was been postponed until December 2017. Thus, the low landfill gate fee does not create an incentive to increase recycling of materials and subsequently improve the packaging collection and recycling system.\textsuperscript{112}

For Hungary, both the recovery target of 60\% and the recycling target of 55\% were not met, with 58.1\% and 50.1\% achieved for recovery and recycling respectively. Hungary did not respond to the Member State questionnaire in the 2013-2015 period and as such the answers discussed are from the 2010-2012 reporting period. Hungary has measures in place to encourage reuse via implementation of a product charge which is only paid the first time a product is placed on the market. The same companies placing packaging on the Hungarian market are required to provide collection and recovery schemes which

\textsuperscript{110} Eunomia (2018) Study to Identify Member States at Risk of Non-Compliance with the 2020 Target of the Waste Framework Directive and to Follow-up Phase 1 and 2 of the Compliance Promotion Exercise, Final Report for DG Environment

\textsuperscript{111} ibid.

\textsuperscript{112} ibid.
can be delivered by becoming part of a collecting recovery organisation. Such organisations then work in collaboration with municipalities which are required to only undertake normal waste collection.

At the point when this data was collected (2013-15), Hungary was still in the process of updating its collection systems and infrastructure, which may not have been reported in the 2010-12 reporting period when the most recent responses are from. In recent years, the country has started to implement improved collection services, including the roll out of door to door services for householders using European structural funds; however, in the period 2013-15 this process had only just started and as such results may not have been yet reflected in recycling and recovery rates. Glass collection services around this time were relatively poor, as the newly introduced door to door services typically did not include glass; alongside this the provision for glass bring banks was in many areas reduced or removed, leading to low rates of glass recycling across the country (such that Hungary missed its glass recycling target).

For Latvia, the recycling rate target was not met, with a rate of 53.9% achieved. Latvia has some measures in place to encourage re-use such as the requirement for a deposit and return system for good manufacturers using re-usable packaging, however the system is voluntary and aimed at glass bottles and plastic crates for storing bottles. Economic operators may also be exempted from paying environmental tax on packaging if they ensure implementation of provisions on the recovery of packaging waste contained in the environmental protection legislation alongside other conditions. Latvia detailed that resources obtained from the European Cohesion Fund were used to establish infrastructure for separate waste collection with the future aim of developing packaging deposit and return systems, and reuse and recycling systems. This suggests that Latvia is in the process of improving and upgrading its recycling systems and infrastructure and that the recycling rate may increase in future.

Further key factors likely to contribute to Latvia missing the 55% recycling target are considered to be:

- Collection infrastructure provided by PROs is in the form of bring bank networks which may collect some packaging that would otherwise have been disposed of in regular waste collections from households, but obviously cannot target material that does end up being disposed via regular collections;
- Despite some efforts from PROs (such as running national public awareness campaigns to encourage recycling of the materials the PROs are responsible for), an approach that coordinates PROs and municipality recycling efforts regarding diverting packaging from disposal has been absent;

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113 Eunomia (2018) Study to Identify Member States at Risk of Non-Compliance with the 2020 Target of the Waste Framework Directive and to Follow-up Phase 1 and 2 of the Compliance Promotion Exercise, Final Report for DG Environment
• The more convenient collection route for most Latvian residents has often been via regular waste collections, provided by municipalities or their contractors. Some recycling (including packaging) has been provided as a regular service alongside regular residual waste collections, but historically the coverage has been patchy;

• A significant proportion of Latvians live in multi-occupancy buildings (apartments and flats), which are a more challenging housing type to provide and encourage use of regular recycling collections from; and

• There are a range of other factors which have affected recycling performance generally in Latvia, which would include an impact on how much packaging is diverted from disposal; such as the lack of sufficient economic instruments (i.e. landfill tax) and policy measures (i.e. minimum collection standards, recycling targets cascaded to municipalities).

For Malta neither the recovery nor recycling targets were met with rates of 41.3% and 41.1% achieved for recovery and recycling respectively. This means that Malta is the Member State which missed the target by the greatest margin. Furthermore, Malta missed a number of the material specific recycling targets. Malta reported a recycling rate of 31.2% for glass, a 55.5% recycling rate for paper and cardboard, a 6.6% recycling rate for wood and a 39.1% recycling rate for metals. Thus, Malta only met the material specific recycling target for plastics.

Reuse of packaging is encouraged in Malta by excluding reusable packaging from calculations of amount placed on the market. However, Malta states that the government has been holding discussions on a proposal to introduce a deposit and return system for plastic and metal beverage containers. In terms of collection of packaging waste the producer of the packaging or authorised packaging waste recovery schemes acting on behalf of producers are responsible for setting up the necessary collection systems for the collection of packaging waste in Malta. The aim is to recover and recycle a percentage of packaging waste based on the amount of packaging placed on the market. Packaging is mainly collected via kerbside collection for dry recyclables, provision of bring-in sites across Malta and Gozo, and directly from commercial and industrial entities which are members of the scheme.

Suggestions as to why Malta has missed the target for recycling and recovery of packaging waste largely come down to the waste and recycling systems as a whole. Historically in Malta there have been daily collections of residual waste, though “Recycle Tuesdays” for mixed packaging waste (excluding glass) were introduced in around 2008, and there have been some gradual developments since (monthly glass collections in some localities, and since 2016 also some organics collections). Whilst residual waste frequency has been reduced in most localities, the frequency of collection remains

114 Eunomia (2018) Study to Identify Member States at Risk of Non-Compliance with the 2020 Target of the Waste Framework Directive and to Follow-up Phase 1 and 2 of the Compliance Promotion Exercise, Final Report for DG Environment
higher than that of recycling collections in almost all localities. As such, collection of residual waste remains convenient. This is coupled with a lack of incentives to reduce quantities of residual waste due to an unlimited sack based residual system, and the absence of pay-as-you-throw. A further fundamental issue is that with local authorities having a duty to collect all waste placed out on the street to maintain street cleanliness, and ineffective controls on businesses, trade waste abuse of household waste collections is a problem. As such, a lack of incentives for recycling and convenient uncontrolled residual collection is in large part thought to be responsible for the low rates of recycling and recovery of packaging waste seen for Malta. That said, however, Malta is taking some key actions to tackle the issues including an announcement in October 2017 that it would introduce a deposit refund scheme for one-way beverage containers, and speaking at the beginning of April 2018, Environment Minister Jose Herrera stated that the government will introduce a fine for citizens who fail to recycle their waste by the end of 2018.115

For Romania neither the recovery nor recycling targets were met with rates of 56.4% and 54.8% achieved for recovery and recycling respectively. Furthermore, Romania missed the material specific recycling target for glass, reporting a recycling rate of 54.2% in 2014. It is worth noting that Romania did not respond to the Member State questionnaire in either of the last two reporting periods and as such the responses used are from 2007-2009, making them likely out of date with Romanian policy. It is also worth noting that Romania had derogation targets set up until 2012. These targets were allocated to Romania following accession to the EU in 2007. In its 2007-2009 responses, Romania discusses the requirement for deposit and return systems to be set up for reusable packaging, and a requirement for producers to achieve minimum recovery and recycling targets or join one of the authorised recovery organisations.

Romania’s failure to achieve the recycling and recovery targets for packaging waste is likely linked to the organisation of the waste management system as a whole. Recycling collections are via aging bring container systems only, reducing the convenience of recycling, whilst pay-as-you-throw for residual waste has not been introduced meaning there is little incentive for individuals to increase rates of recycling. In addition, public engagement with recycling is poor, and contamination of recyclate can be a problem. Finally, there are multiple packaging EPR schemes active in Romania, with ineffective overarching legal and administrative controls. The lack of a clearinghouse taking on the national responsibility for targets, working with both producers and the EPR schemes, remains a problem. Legislation to introduce economic incentives including pay-as-you-throw has been put in place a number of times in Romania in recent years, though each time it has been withdrawn, delayed and redrafted. It is not certain whether the latest

115 Eunomia (2018) Study to Identify Member States at Risk of Non-Compliance with the 2020 Target of the Waste Framework Directive and to Follow-up Phase 1 and 2 of the Compliance Promotion Exercise, Final Report for DG Environment
government emergency ordinance will lead to successful implementation across the country.\textsuperscript{116} 

\textsuperscript{116} Eunomia (2018) \textit{Study to Identify Member States at Risk of Non-Compliance with the 2020 Target of the Waste Framework Directive and to Follow-up Phase 1 and 2 of the Compliance Promotion Exercise}, Final Report for DG Environment
Figure 4-1 - Graph to show Recycling Rates for the Member States Missing the 55% Recycling Rate Target for Packaging Waste

- Romania
- Malta
- Latvia
- Hungary
- Greece

![Recycling Rate Graph](image)

- Recycling Rate (2015, or 2014 where 2015 data is not yet available)

Figure 4-2 - Graph to show Recovery Rates for the Member States Missing the 60% Recovery Rate Target for Packaging Waste

- Romania
- Malta
- Hungary
- Greece
- Cyprus

![Recovery Rate Graph](image)

- Recovery Rate (2015, or 2014 where 2015 data is not yet available)
5.0 Summary

5.1 Concluding Remarks

This section summarises the progress that Member States have made in implementing the Packaging and Packaging Waste Directive, and highlights key changes since the previous reporting period. Only 21 Member States submitted the implementation questionnaire for the period in question (2013-15) while France, Germany, Hungary, Ireland, Italy, Romania and the United Kingdom did not submit a report. In such cases responses from the previous available reports were used.

5.1.1 Transposition into National Legislation

Question 1: Transposition into National Law

- All 28 Member States have provided the Commission with details on their laws, regulations and administrative provisions that incorporate the requirements of the Directive into their national legislation.

Question 2: Plans for Further Measures in Relation to Article 16

- Thirteen Member States reported that there are plans to adopt further measures within the framework of the Directive and under the scope of the notification obligation of Article 16 (Question 2). These Member States were Austria, Belgium, Estonia, Finland, Germany, Greece, Luxembourg, Malta, the Netherlands, Poland, Slovakia, Spain and Sweden. During the reporting period 2010-2012, a total of nine Member States reported plans to adopt further measures, and in the 2007-2009 a total of six Member States had reported plans to adopt further measures. As such, over the past two reporting periods, regular growth has been seen in the number of Member States implementing measures beyond the scope of the Directive.

Question 3: Programmes with Objectives Beyond Those in Article 6 (1) (a) and (b)

- Belgium, Denmark, Estonia, Finland, the Netherlands, Spain and Sweden (7 Member States) have set up objectives that go beyond those referred to in Article 6 (1) (a) and (b) (Question 3). This is three more than in the 2010-2012 period. The additional Member States were Denmark, Sweden and Finland. The only Member States who provided further detail in response were Sweden and Belgium.

- Sweden and Belgium were highlighted for good practice for having targets set above those laid out in Article 6. Belgium set targets of 80% recycling and 90%

117 “further measures not detailed below” – additional measures which were not described elsewhere in the Implementation Questionnaire.
recovery for household packaging waste, and 75% recycling and 80% recovery for industrial packaging waste as well as material specific targets. Sweden’s recycling rate targets for individual materials go above that in Article 6 (1) (e) for all materials they have listed (plastic, glass and paper/cardboard). The targets listed are a 65% rate of recycling for all packaging waste, 85% of paper, paperboard, cardboard, and corrugated cardboard, 50% of plastic excluding drinks packaging, and 90% of glass. However, Sweden’s targets will not come into force until 2020.

### 5.1.2 Implementation of the Directive

#### Question 1: Prevention of Packaging Waste (Article 4)

- All Member States (28) reported having taken action to prevent packaging waste. This is one more than in the 2010-2012 period, with Greece now reporting that it has taken measures in the field of prevention.

- The additional actions undertaken since previous reporting period include inter alia the following actions: Portugal introduced a charge on lightweight plastic carrier bags, Cyprus focussed on increasing education and awareness, and Spain reported additional action at both the national level and in the Autonomous Communities.

- Measures mainly consisted of the implementation of national and local prevention plans; producer responsibility schemes; taxation measures; green public contracts; information and awareness-raising on prevention of packaging waste and re-use of packaging; eco-design; and action plans for key industries.

- A number of Member States described producer responsibility schemes with a take-back obligation in reference to preventing the formation of packaging waste. Under these schemes producers are obliged to take-back packaging waste by establishing their own take-back systems or by fulfilling their obligations through joining a compliance scheme which covers the return, collection, re-use, recycling or other recovery of packaging waste.

#### Question 2: Measures to Encourage Re-use Systems (Article 5)

- 19 Member States reported to have taken measures to encourage re-use systems in the 2013-2015 period, 1 more than in the previous reporting period, while 6 Member States which did not submit the updated report did so in the previous reporting period. However, despite responding “No”, Greece and the Netherlands have listed relevant measures taken to encourage reuse. Including these two Member States, a total of 21 Member States have taken measures to encourage reuse which is an increase from 26 in the previous reporting period.

- The most common measures introduced to encourage re-use systems are very similar to those used for waste packaging prevention, such as: the use of deposit and return systems; taxation measures (e.g. re-usable packaging being taxed only the first time it is placed on the market, or exempted from taxation); obligations
to offer products in re-usable packaging; promotion of re-use within waste management plans; and information and awareness-raising campaigns.

- It is worth bringing attention to the recent efforts of certain Member States. Malta is holding discussions and looking at introducing a deposit return system for metal and plastic beverage containers. Similarly, Lithuania made an amendment to national legislation in 2015 such that the charging of a deposit is now mandatory for disposable packaging.

- Spain and Portugal can be highlighted for demonstrating good practice. Portugal was noted for its requirement for products to be made available in reusable packaging to allow consumer choice, and for setting a target for the quantity of reusable packaging on the market. Spain was noted for having ambitious and quantitative objectives for reuse of beverage containers in the HoReCa (Hotels, Restaurants and Cafes) sector.

**Question 3: Measures to Set up Return Systems (Article 7)**

- All 28 Member States, have reported that they have taken measures to set up return systems in 2013-2015 and in the previous reporting period.

- As outlined in their responses, in most Member States producers are obliged to take-back packaging waste and establish their own take-back systems or to fulfil their obligations by participating in a return system. Some Member States have also reported that they themselves have established public schemes for the return of packaging and packaging waste.

- A number of Member States are worth highlighting in the context of changes observed since 2010-2012. National legislation in Poland was revised in 2013. Municipalities are now responsible for organising the selective collection of municipal waste, including packaging waste, comprising several waste types. Cyprus has set up a specific programme for the collection of packaging waste concerning pesticides, and in 2015 added 96 bins in 55 collection and sale points to the programme. Finally, Estonia has seen a high level of growth in the number of companies joining the national deposit system of ~15% in the years covered by the reporting period (2013-2015).

- In response to this question there were a number of measures which qualified as good practice, the responses were diverse and as such the measures taken to set up return systems are varied. Such measures included take back obligation for producers and distributors of packaging in Austria, deposit return systems in Denmark and Finland and measures targeted at return systems in the HoReCa sector in Portugal. Alongside this, many Member States detailed fees and taxes used to encourage or fund return systems.

**Question 4: Recovery and Recycling Targets and Method Used to Obtain Data (Article 12(3))**

- For all Member States (28) data with regards to recovery and recycling was obtained from Eurostat for 2013-2015. At the time of reporting, all Member
States had submitted data for 2013 and 2014, and most for 2015. It is worth mentioning that Poland, Portugal and Slovakia also supplied data in the formats on the basis of Annex I and II, as required by the Directive, and were the only Member States to do so, the rest referred to data submitted to Eurostat. However, these annexes require data beyond that available on Eurostat such as tonnages of waste imported and exported, and are presented in a different format.

- Bulgaria, Croatia, Cyprus, Estonia, Greece, Hungary, Italy, Poland, Portugal, Slovakia, and the United Kingdom (11) provided information on applied methods to obtain the statistical data. This is 4 more than in the previous reporting period.

- Across the EU28, the generation of packaging waste increased by 5.9% between 2013 and 2015, from 79,581,375 tonnes in 2013 to 84,262,638 tonnes in 2015.

**Recycling Rates**

- In the EU28 the recycling rate of packaging waste went up from 65.3% in 2013 to 65.4% in 2015. A total of 23 Member States achieved the 55% recycling target within the reporting period. These were Austria (67.1%), Belgium (81.5%), Bulgaria (64.1%), Croatia (60.1%), Cyprus (58.7%), the Czech Republic (74.3%), Denmark (67.4%), Estonia (59.0%), Finland (60.9%), France (65.5%), Germany (69.3%), Ireland (67.5%), Italy (65.4%), Luxembourg (60.5%), the Netherlands (71.9%), Poland (57.6%), Portugal (57.1%), Slovakia (64.3%), Slovenia (67.0%), Spain (68.4%), Sweden (71.8%) and the United Kingdom (60.6%). Greece (53.8%), Hungary (50.1%), Latvia (53.9%), Malta (41.1%) and Romania (54.8%) did not meet the target. This is a decrease on the number of Member States reporting not to be meeting the target when compared to the 2010-2012 period.

- In the 2013-2015 reporting period, Croatia and Poland met the 55% recycling rate target for the first time. While Greece met the 55% target in the 2010-2012 reporting period but failed to meet it in 2015.

**Recovery Rates**

- The EU28 rate of recovery\(^{118}\) fell slightly over the same period from 79.2% in 2013 to 78.7% in 2015. A total of 23 Member States met the 60% target for recovery in the reporting period. These were Austria (96.3%), Belgium (99.3%), Bulgaria (64.1%), Croatia (60.1%), the Czech Republic (79.5%), Estonia (80.1%), Denmark (89.5%), Finland (102.2%), France (75.5%), Germany (97.2%), Ireland (91.4), Italy (76.4%), Latvia (62.1%), Lithuania (60.2%), Luxembourg (94.7%), the Netherlands (95.1%), Poland (60.9%), Portugal (60.2%), Slovakia (66.7%), Slovenia (77.4%), Spain (72.7%), Sweden (79.5%) and the United Kingdom (64.7%). This is

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\(^{118}\) including incineration at waste incineration plants with energy recovery
an increase from the 19 Member States who met the target for recovery in the 2010-2012 period.

- Cyprus (58.7%), Greece (54.3%), Hungary (58.1%), Romania (56.4%), and Malta (41.3%) failed to meet the 60% target.

- Latvia, Poland and Portugal met the target in the 2013-2015 period but not in the 2010-2012 period. Poland had a derogation until 2014 but the other two Member States did not. Croatia provided data for the first time in 2013-2015, as it joined the EU in 2013.

- Greece met the target in the 2010-2012 reporting period but failed to meet it in the 2013-2015 reporting period.

**Question 5: Encouragement of the Use of Recycled Material (Article 6 (4))**

- Most Member States (21) reported to have taken measures to encourage the use of materials obtained from recycled packaging waste for the manufacturing of packaging and other products. Six Member States responded negatively, these were: Bulgaria, Finland, France, Greece, Slovakia, and Slovenia. Greece, whilst answering “No”, gave details on green public procurement procedures which encourage the use of recycled material. Making the addition of these two Member States results in a total of 23 Member States taking measures.

- The number of Member States reporting encouragement of the use of recycled material has risen from 19 in 2010-2012 to 21 (including Cyprus and Malta) – or 23 including Sweden and Greece – in 2013-2015. Cyprus encouraged the use of materials obtained from recycled packaging waste through its Green Public Procurement procedure. Malta also detailed measures relating to Green public procurement and targets for the percentage of recycled material in certain types of packaging.

- The most common measures listed in the reports included: green procurement; promotion within waste management plans of the use of recycled materials; financing of projects or research into the promotion of recycled materials; information and awareness-raising activities; measures specifically related to drinks packaging; and eco-certification of products. In Germany, for example, it was reported that producers and distributors must prioritise recycled content when manufacturing products.

- In terms of good practice, Austria and Luxembourg detail in their responses evidence of closed loop recycling. Austria has bottle-to-bottle recycling for PET packaging, and in Luxembourg practice is the same but covers transparent and slightly blue PET. Such a closed loop approach guarantees a high percentage of recycled content in the secondary product. A number of Member States also listed Green Public Procurement policies which are also considered good practice for encouraging the use of recycled material.

**Question 6: Information campaigns (Article 6(6) and Article 13)**
- All 28 Member States reported the introduction of information campaigns across the current and previous reporting periods. Luxembourg, the Netherlands and Slovenia provided little detail on their information campaigns, but in part this was due to delegating responsibility for such measures to collection and recovery organisations.

- This is an increase on the 26 Member States who reported having information campaigns in 2010-2012. Luxembourg and the Netherlands are the two Member States who previously reported not having information campaigns.

- Member States reported a wide range of strategies in their information and communication campaigns. Information for users and consumers of packaging, including the general public, has been provided by collection and recovery schemes, producers/other stakeholders and central, regional and local government. This takes many forms, including press, radio and TV, printed materials, websites and events. Several Member States have also reported that they have undertaken specific information campaigns at schools to target children and young people.

- The use of online resources and social media was reported by a number of Member States, more so than in the 2010-2012 reporting period. This included Portugal’s use of a video dispelling myths around recycling which was shared on Facebook and YouTube.

**Question 7: Implementation of essential requirements and Concentration of Heavy Metals Present in Packaging (Article 11)**

- The majority of Member States (20) have reported on the existence of national standards related to the essential requirements of Annex II to the Directive and to the concentration levels for heavy metals in packaging in 2013-2015. Seven Member States have adopted the relevant European standards. The Czech Republic reported that there are no national standards relating to the essential requirements, in accordance with Article 9, and to the concentration levels of heavy metals, in accordance with Article 11.

- No significant changes have occurred across the Member States with regards to national standards relating to heavy metal concentrations in packaging as compared to the responses submitted in the 2010-2012 reporting period.

- Five Member States provided reports or comment on the functioning of the system provided for in the Decision (Article 7 of the Commission Decision of 24 March 2009) on the progress made in phasing out plastic crates and plastic pallets which are not in conformity with Article 11(1) of the Directive, and on monitoring such progress. These were Austria, Cyprus, the Czech Republic, Lithuania and Latvia.

**Question 8: Specific chapter on Waste Management Plans (Article 14)**
All Member States (28) reported on the existence of a chapter on packaging and packaging waste within their waste management plans, or that a special programme for packaging and packaging waste exists in 2013-2015. This was also the case in 2010-2012.

**Question 9: Economic Instruments (Article 15)**

- A total of 23 Member States reported having adopted economic instruments in accordance with Article 15.
- By comparison, 25 Member States reported to have done so in 2010-2012. Both Malta and the Netherlands reported not having introduced economic instruments in 2013-2015 but had responded positively in 2010-2012. In the case of Malta, this seemed to be due to a lack of any new or additional legislation. The Netherlands did not give an explanation for this change.
- The most common measures discussed were: taxes levied on packaging; deposit/return schemes for packaging; charges for final disposal/landfill of packaging; financial sanctions if re-use and recovery targets are not met; and obligations for economic operators to bear collection and recovery costs.
- The measures listed above which were common in Member State responses all constitute good practice. In a number of Member States taxes were levied on packaging with measures attached to encourage the use of recycled or reusable options. In addition, in Latvia, the taxes applied to packaging are varied in accordance with the environmental impact of the packaging material. In France and Germany, packaging producers are required to contribute to the management, collection and recovery of household packaging waste. This list is not, however, exhaustive, and many Member States demonstrated good practice in this area.
5.2  Limitations of Reporting

The most serious issue in this respect was that France, Germany, Hungary, Ireland and Italy did not submit completed Implementation Questionnaires to the Commission for 2013-2015. They had previously submitted questionnaires for 2010-2012. Similarly, Romania and the United Kingdom did not submit completed Implementation Questionnaires in the 2013-2015 period, and also failed to provide responses in the 2010-2012 period.

Furthermore, within the information received from Member States, responses varied from the detailed and open to those which respond solely with a “Yes” or “No”. The majority of Member States reported on whether measures had been transposed into national law but did not go on to explain whether actions had proven to be effective or had led to improvements in practice. For some questions responses were missing for certain Member States, and in other cases it was difficult to ascertain what the correct answer was. For example, a common instance of incomplete reporting related to the provision of the methods for obtaining the data on the recovery and recycling targets according to Article 12(3) in Question 4. The majority of Member States did not provide any information on such methods.

In many instances Member State responses referenced national legislation or copied and pasted relevant text, without providing any further information on implementation. This can make it difficult to assess the extent of implementation. Similarly, Member States might refer to their responses to previous Implementation Questionnaires (2004-2006, 2007-2009 or 2010-2012) without repeating the concrete information requested. For example, Italy completed its Implementation Questionnaire 2010-2012 (used in lieu of a 2013-2015 questionnaire) by referring to its responses for 2004-2006 for a number of questions. Whilst Member States are permitted to refer back to earlier periods rather than repeat themselves, in cases such as these one might question whether more nuanced changes are being missed by simply referring back to previous reporting periods.

In addition, there were some discrepancies between the Implementation Questionnaire responses and other data sources that were considered. For example Greece, reported in its response to Question 2 that measures had not been taken to encourage reuse. However, reuse systems for beverage containers are in place in Greece and the reuse of packaging waste is listed as an objective in the National Waste Prevention Plan. This contradiction could have been the result of question misinterpretation which was noted in the Member State responses and is discussed below.

Finally, there were also instances of differing interpretations of questions in the Implementation Questionnaire by Member States. An example is Question 5 which considers the encouragement of the use of materials obtained from recycled packaging waste in accordance with Article 6 (4). Some Member States responded detailing recycling strategies or listing recycling plants as examples of encouragement, misinterpreting the question which asked specifically about measures taken to encourage the use of materials obtained from recycled packaging waste rather than
infrastructure in place for recycling. Whilst still relevant information this was often provided in lieu of that which addressed the question more directly. A second example of this is in response to Question 2 which relates to measures taken to encourage reuse. The Netherlands responded by detailing plans for a pilot trial in 2016 and 2017 for collection of small plastic bottles and cans from organisations such as churches and schools. Whilst linked to the implementation of the packaging and packaging waste directive, this action does not directly encourage reuse and is not a measure that has been taken by the time of reporting.

It is important to bear in mind that this exercise is based upon self-reporting. That is, the information provided by Member States in the Implementation Questionnaire has not been verified. It is therefore not possible to say with certainty whether Members States are doing in practice what they report to be doing in the Implementation Questionnaires. Equally, Member States may have introduced measures or otherwise that are relevant to the management of packaging waste but haven’t been reported.
## A.1.0 Appendix 1 – Member State Implementation Questionnaires 2013-2015

### Table A - 1: Member State Implementation Questionnaires 2013-2015

<table>
<thead>
<tr>
<th>Member State</th>
<th>Implementation Questionnaire 2013-2015 received? (Yes/No)</th>
<th>Date received if available (DD/MM/YYYY)</th>
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<td><strong>Response rate:</strong></td>
<td><strong>75% (21/28)</strong></td>
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A.2.0 Appendix 2 – Other Relevant Figures

The following figures present recycling and recovery rates for packaging waste by Member State for 2013-2015.\textsuperscript{119}

\textsuperscript{119} Source: EUROSTAT (t_env_wasst)
Figure A - 1: Recycling Rates for Packaging Waste by Member State, 2013-2015

Source of Data: Eurostat
Last update: 31.12.2017
Date of creation: 12 Dec 2017 19:06:48 CET

Disclaimer: This graph has been created automatically by Eurostat software according to external user specifications for which Eurostat is not responsible. Graphs included.


Short Description: Recycling rate for the purposes of Article 6(1) of Directive 94/62/EC means the total quantity of recycled packaging waste, divided by the total quantity of generated packaging waste.

C3dtrin10063
Figure A - 2: Recovery Rates for Packaging Waste by Member State, 2013-2015

Source of Data: Eurostat
Last update: 31.12.2017
Rate of intranet: 25 Dec 2017 16:16 CET

Description: This graph has been created automatically by Eurostat software according to the external user specifications for which Eurostat is not responsible. Credit line included.

Short Description: Rate of recovery or incineration at waste incineration plants with energy recovery for the purposes of Article 6(3) of Directive 94/62/EC means the total quantity of packaging waste recovered or incinerated at waste incineration plants with energy recovery, divided by the total quantity of generated packaging waste.

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