

March 2016

Circular economy: Revision of waste legislation

This briefing is one of a series of 'Implementation Appraisals' on the operation of existing EU legislation in practice. Each such briefing focuses on a specific EU law which is likely to be amended or reviewed as set out in the European Commission's Annual Work Programme. The Implementation Appraisals aim to provide a succinct overview of material publicly available on the implementation, application and effectiveness of an EU law to date – drawing on available input from the EU institutions and external organisations. The Implementation Appraisals are provided to assist parliamentary committees in their consideration of the new proposals, once tabled.

EP committee responsible at time of adoption of the EU legislation: Environment, Public Health and Food Safety (ENVI)
Date of adoption of original legislation in plenary: 17 June 2008 (Waste Framework Directive), 14 December 1994 (Packaging and Packaging Waste Directive) and 9 February 1999 (Landfill)
Deadline for transposition: December 2010 (Waste Framework Directive), June 1996 (Packaging and Packaging Waste Directive) and April 2001 (Landfill Directive).
Dates planned for review: December 2014 (Waste Framework Directive), Targets reviewed every five years (Packaging and Packaging Waste Directive) July 2014 (Landfill Directive)
Timeline for new amending legislation: Proposals presented on 2 December 2015

1. Background

The concept of circular economy has developed progressively over time and has its roots in various schools of thought.¹ In a circular economy, production, consumption and waste are interlinked and the value of resources and material is maintained through recycling and re-use. The decoupling of economic growth from resource use is also central to the circular economy. One of the leading charities in this area, the Ellen MacArthur Foundation, has described a circular economy as 'restorative and regenerative by design, and aims to keep products, components, and materials at their highest utility and value at all times.'

The ideas underpinning the circular economy are very much present in the European Union's (EU) vision and frameworks. The 2011 [Roadmap to a Resource Efficient Europe](#), outlines a framework for a more sustainable economy and a way towards the decoupling of economic growth from resource use. The [7th Action Programme](#) sets the EU's environmental priorities until 2020. This programme identifies key actions such as protecting EU natural capital, moving towards a greener and more energy efficient economy and safeguarding citizens from environmental related pressures such as climate change. The [Raw Material Initiative](#) on the other hand, stresses the importance of raw material supply to maintaining EU competitiveness and the key role of technology in improving efficient use of raw material.

While environmental concerns are important, the economic aspects are also key. In particular, the capacity of the circular economy to sustain economic growth and to create jobs. This is clear in the European Commission's work programme, where circular economy can be found under the heading 'A new boost for jobs, growth and investment', one of the ten priorities of the Commission's work programme. The focus on economy was further stressed by Commission Vice-President Timmermans in his introduction to the Circular Economy package and made clear in the

¹ [See the website of The Ellen MacArthur Foundation schools of thoughts](#)

Commission's headline figures, estimating savings of €600 billion for EU businesses, equivalent to 8% of their annual turnover². (See section 2 for a summary of the research study)

In July 2014, the European Commission presented its initial strategy for a circular economy '[Towards a circular economy: a zero waste programme for Europe](#)'¹ which included a [legislative proposal](#) to amend several Directives, primarily the Waste Directive, the Directive on Packaging and Packaging Waste, and the Landfill Directive. The proposals were withdrawn in 2015 with the explanation that they were too focused on waste management and that more country specific proposals needed to be included. The Commission promised to come back with 'a new, more ambitious circular economy strategy' later that year.

On 2 December 2015, the Commission presented its [revised circular economy proposal](#).³ The proposal contained a series of legislative proposals on waste, while also setting out an [action plan](#) with a timetable.⁴ The action plan included all areas of the circular economy, i.e. from product design to its re-use. Some of the forthcoming initiatives will be legislative proposals, i.e. fertilisers and water re-use, while others will be a combination of legislative and non-legislative proposals such as those related to the Eco-design Directive. This briefing will focus on the current concrete legislative proposals, namely the Waste Directive, the Packaging Directive, the Landfill Directive and the Electrical and Electronic Directives.

What are the main elements of the current legislative proposals and how do they differ from the previous ones?

- The EU target for recycling municipal waste by 2030 has been reduced from 70% in 2014 to 65% in 2015.
- The EU target for recycling packaging waste by 2030 has been reduced from 80% in 2014 to 75% in 2015.
- The targets for different packaging material have also changed: previously, 90% of all paper was to be recycled by 2025, the target is reduced now to only 75%, while plastics have changed from 60% to 55%, although to be reached by 2025, rather than by 2030. In terms of wood, the 2014 proposal mandated that 80% be recycled by 2030, but the target is reduced to 75%, while the target for metal/glass has changed from 90% to 85%, by 2030.
- The 2014 proposal aimed to phase-out landfill by 2025 for recyclable waste, corresponding to a maximum landfill rate of 25%, with a maximum of 5% landfill rate by 2030. The current proposal introduces a [binding](#) landfill target to reduce landfill to a maximum of 10% of all municipal waste in 2030. It also includes a ban on landfilling of separately collected waste, and the promotion of economic instruments to discourage landfilling.
- Seven countries are given five additional years to achieve the targets related to municipal waste and landfill (Estonia, Greece, Croatia, Latvia, Malta, Romania and Slovakia).
- A target to reduce food waste generation by 30% by 2025 was included in the 2014 proposal, while the new proposal does not include any targets in this area.
- Missing from both proposals is the Parliament's call for a 30% resource efficiency target by 2030.

The current proposal has retained the early warning system to monitor target compliance and added some additional clarifications on waste definition to increase coherence in data collection and methodology.

According to a 2015 Eurostat news release,⁵ 481 kg of municipal waste was generated by each person in 2013, of this 470 kg was treated – 31% ended up in landfill, 28% was recycled, 26% incinerated and 15% composted. The overall trend compared to the 1990s was a reduction in waste generated and an increase in waste being recycled. In total, 43% of municipal waste was either recycled or composted in 2013. Figures varied substantially between Member States. For example, in Romania a person generated 272 kg of waste, but 97% percent of the treated waste (220 kg) was put into landfill. In Denmark, however, 747 kg of waste per person was generated, with all of it treated and only

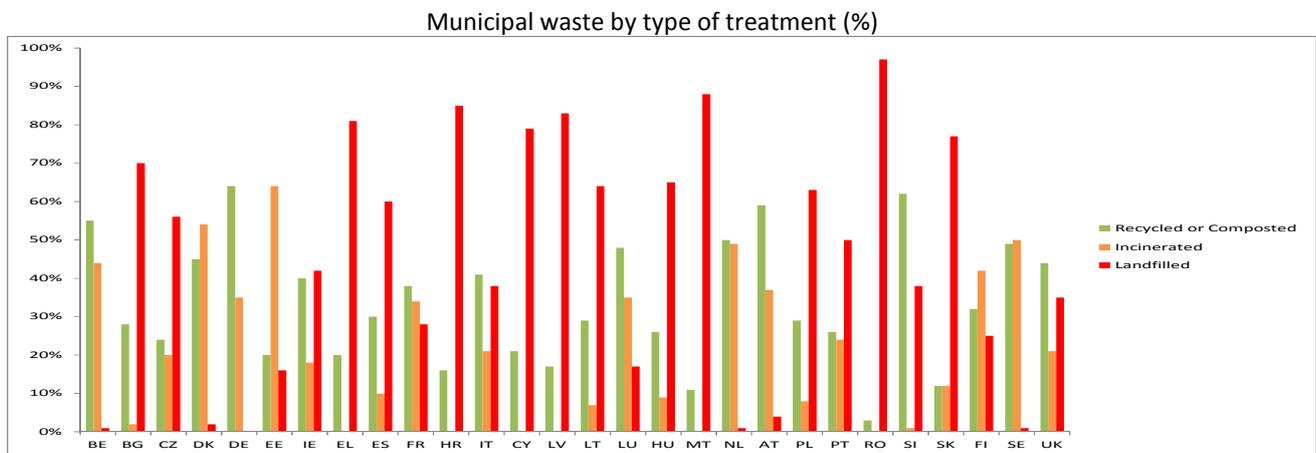
² The opportunities to business of improving resource efficiency,

³ COM (2015) 614/2

⁴ Annex 1, COM (2015) 614/2

⁵ <http://ec.europa.eu/eurostat/documents/2995521/6757479/8-26032015-AP-EN.pdf/a2982b86-9d56-401c-8443-ec5b08e543cc>

2% being sent to landfill, although 54% was incinerated. It is important to note that the term 'municipal waste' refers mainly to household waste but also includes commercial waste. The proportion of the latter varies between countries, making strict comparisons difficult. Another issue was the local and regional variations in Member States. A recent study for the European Commission showed that Copenhagen for example generated significantly less waste than the Danish average, while the opposite was the case for Tallinn-Estonia.⁶



Source: Eurostat: Eurostat Newsrelease, 26 March 2015 NB: Figures are rounded and may not add up to 100

The amount of packaging waste also varied between Member States with an average of 157 kg per person generated in 2012. The most common types of packaging waste were paper and cardboard (40%), glass (20%), plastics (19%), wood (15%) and metals (6%). In 2012, five Member States fell just below the 2008 target of 60% recovery of packaging waste, while one Member State did not reach the 55% target of recycling rate for total packaging waste.⁷

On the issue of food waste, Parliament had called for a binding food waste target in its 9 July 2015 [resolution](#). While this had been included in the previous circular economy proposal, it was not present in the current version. A frequently cited source on food waste is the 2010 [Preparatory study on food waste across EU27](#), which uses Eurostat data from 2006 to estimate that 89 million tons or 179 kg per capita of food was wasted. (Data refer to the manufacturing, household and 'other sectors'). The reasons for food waste varied by sector, but for households awareness and attitudes, as well as packing and labelling, were important barriers to preventing food waste. Households were the main source of food waste in this study as well as national studies in [Sweden](#) and the [UK](#). Both these studies showed a decrease in food waste over time with food waste in the home at 50% (UK) and at 35% (SE). The Swedish study showed that unnecessary food waste was particularly high in supermarkets. Supermarkets only generated 7 kg per person of waste, compared with 81 kg per person for household, but 91% of the waste was deemed unnecessary.

Given the similarities with the 2014 proposal, the Commission's previous [Impact Assessment](#) (IA) was thus broadly the same. The preferred option arising from the IA was a combination of targets in the area of waste, coupled with a simplification of the legislation: the latter reducing the administrative burden and the former reducing negative environmental impacts. In terms of municipal waste targets, the IA options ranged from a low target of 60% by 2030 to a high target of 70%. The [EPRS initial appraisal](#) of the IA concluded that it was thoroughly researched, but that the weaknesses in the data, i.e. unreliable Member State statistics, along with the role played by regions in waste management could merit further examination. It also noted that current targets were based on the best performing Member States and that it might be 'too optimistic' to assume that all Member States would reach the same levels by 2020. In addition to the IA, the Commission published a [complimentary IA](#) in 2015, focusing on some further options in relation to targets, and in particular what would be the impact of allowing struggling Member States to delay reaching the landfill target by five years. This IA took into account the views of the Parliament, the European Economic and Social Committee and the Committee of Regions. It noted that there had been a consensus among the institutions in calling for harmonised statistical reporting to improve the comparability and reliability of the data. In the accompanying [Implementation Plan](#), the Commission listed the main challenges: meeting the targets and monitoring progress. The [EPRS appraisal](#) of the Commission's complimentary IA noted that the concern around target-setting

⁶ Bipiro, [Assessment of separate collection schemes in the 28 capitals of the EU](#), European Commission, November 2015

⁷ http://ec.europa.eu/eurostat/statistics-explained/index.php/Packaging_waste_statistics

based on the most successful Member States had been addressed, but that the IA was too focused on the potential impact of the new proposed waste targets and did not consider the targets within the broader policy agenda.

The [Waste Framework Directive \(WFD\) 2008/98](#)

This Directive aims at preventing and reducing the negative impacts of waste and to manage resources more effectively. It sets out a waste management hierarchy for Member States to follow: prevention, preparing for re-use, recycling, other recovery, and disposal. It also introduces the concept of 'polluter pays principle' and introduces targets on recycling and re-use. For example, a 50% recycling target for household waste by 2020 and a 70% recycling target for the re-use, recycling and other recovery of construction and demolition waste.⁸ The Directive also requires Member States to adopt [national waste management plans](#) and prevention programmes with clear objectives. These programmes are regularly evaluated. The transposition date for this Directive was December 2010. The Directive includes a legal requirement to review waste management targets which is a main driver behind the [current proposal](#) which proposes new recycling targets for municipal waste until 2030 and minimum operating requirements for Extended Producer Responsibility schemes. (See above for a comparison between the current and previous proposals).

The [Packaging and Packaging Waste Directive \(PPWD\) 1994/62](#)

The Directive aims at harmonising national measures relating to packaging (packaging in use and as waste) for environmental reasons as well as guaranteeing a well-functioning internal market. Following the waste hierarchy, the main aim of the Directive is firstly to prevent packaging waste and secondly, to encourage recycling and re-use by ensuring specific packaging requirements. The Directive sets out specific targets related to the main material generating packaging waste such as cardboard and plastic. The transposition was required by June 1996. The Directive was last amended in April 2015 by [Directive 2015/720](#) with regards to the consumption of lightweight plastic carrier bags. The [new proposal](#) updates these targets until 2030. In 2014, this Directive was included in a [fitness check](#) of five waste stream Directives. The fitness check concluded that all Directives were seen as achieving their purpose, although the report pointed out that more could be done to improve the implementation of the legislation, increase coherence in the design of waste legislation and improve its relevance in relation to the EU raw materials initiative. The more detailed analysis of the PPWD in the fitness check showed that its target had been effective and had a wider positive effect on greenhouse gases (GHG) for example. All but one Member State had achieved the overall recycling target for 2008 (55%) and many countries had gone far beyond that. Consistent reporting was still an issue. For example, some countries counted waste collected for recycling as recycled waste while there were no real checks to see that waste exported to be recycled was in fact recycled. Barriers to recycling included lack of infrastructure, poor waste separation and a high dependence on landfill while effective recycling depended on good Extended Producer Responsibility (EPR) schemes as well as economic instruments.

The [Landfill Directive 1999/31](#)

This Directive introduces strict technical requirements aimed at preventing or reducing the negative effects of landfill waste, especially on surface water, groundwater, soil, air, and on human health. The Directive divides waste into several categories: municipal waste, hazardous waste, non-hazardous waste and inert waste. The implementation of the legislation has been patchy and there is still considerable difference between Member States use of landfill, with some landfilling less than 5% of their municipal waste while others landfilled more than 50%. The Commission's [new proposal](#) sets a new target of landfill to be reduced to a maximum of 10% of total waste by 2030. It also proposes that economic instruments be increasingly used to discourage landfill and aims to ensure that only waste that is not recyclable should be incinerated. Transposition took place two years after legislation entered into force. A 2011 [report](#) by the European Environment Agency argued that if the Landfill Directive was fully implemented, municipal waste could be cut by 62 million tonnes in 2020 equal to 1.2% of the total GHG emissions in 2008.

Electrical and Electronic Waste – Three Directives can be found under this heading, Directive 2000/53/EC on end-of-life vehicles, Directive 2006/66 on batteries and accumulators and waste batteries and accumulators, and 2012/19/EU on waste electrical and electronic equipment. The [new proposal](#) is mainly aimed at amending reporting requirements and to ensure that they are in line with the other three proposed legislative amendments.

⁸ <http://ec.europa.eu/environment/waste/framework/>

Infringements procedures – While the implementation of the various waste Directives has been challenging at times, deadlines for transposition have long passed, so recent infringement processes are relatively rare. Nevertheless, the most recent are:

- In December 2015 the Commission referred Greece to the Court of Justice over illegal landfills, having referred Spain for the same reason in July 2015.
- In April 2015, the Commission took Romania to Court over its failure to amend packaging waste legislation (this referred to an update of packaging definitions) that should have been enacted by September 2013.

2. EU-level reports, evaluations and studies

What do the studies to date say about the circular economy and waste management?

A range of reports have been produced in these different policy areas. Broadly, the reports summarised here around the **circular economy** can be seen as attempts to work out a variety of policy options for moving towards a circular economy as well as quantifying its benefits. As the circular economy is a relatively new concept, the need to convince and sell the idea still appears to be key – particularly perhaps because the transition costs are substantial and because the circular economy will primarily produce long-term benefits. These studies reflect both the potential beneficial impacts of the circular economy, and the large uncertainties surrounding estimations of future behaviour and gains.

The main theme running through all reports on **waste management** are the lack of reliable and comparable data and the uneven implementation of waste legislation across Member States. This has led to difficulties in assessing progress in a robust way and conclusions are, at best, estimates of the real situation. Despite these problems, there are still clear indications that targets have contributed to an increase in recycling across the EU. However, targets alone are not sufficient. The most successful Member States have also invested heavily in waste management infrastructure, information campaigns and introduced economic instruments such as taxes to change behaviour. National targets do not always tell the full story; the regional and local differences within Member States can be significant, to the extent that national successes can mask regional shortcomings. Despite the difficulties in analysing data, it is clear that the countries struggling most are mainly located in the south and south-east of the EU. National performance is also linked to citizens' overall attitude to recycling. There are clear parallels between self-reported recycling behaviour and national statistics on waste management. Given the disparities in this area, many of the European Commission reports are looking at ways of improving compliance, such as guidance on good practice and additional assistance to those struggling to meet the waste management performance targets.

Data sources: All reports on waste draw on Member State waste data, it is therefore important to note that the discrepancies can be significant. For example, there is no consensus on what constitutes municipal waste and some countries only record primary landfill waste as landfill and not secondary landfill waste (pre-treated waste).

21. The Circular Economy

A. European Commission Reports

[Scoping study to identify potential circular economy actions, priority sectors, material flows and value chains](#), prepared for the Commission, April 2014

This scoping exercise aims at identifying potential policy options for the EU to encourage a move towards a circular economy. The study identified two areas of action: 1) material, i.e. agricultural products and waste; wood and paper; plastics, metals and phosphorus; and 2) sectors, i.e. packaging; food; electronic and electrical equipment; transport; furniture; buildings and construction. The study also looked in more detail at areas such as mobile phones, metals, food supply and plastics.

The study identified several barriers to a circular economy, such as the lack of investment or financial and fiscal incentives, as well as more fundamental lifestyle changes, such as moving from owning a car to sharing one. In terms of areas for EU action, the report suggested three areas: 1) legislative action – including better implementation as well as new and revised legislation; 2) voluntary agreements; and 3) public investments. The study was mainly based on a review of relevant literature.

[Study on modelling of the economic and environmental impacts of raw material consumption](#), prepared for the Commission, April 2014

This report used modelling to assess the socio-economic and environmental impacts of different policy options aiming to increase resource efficient use of materials. To do this, the study used resource productivity defined as 'GDP per unit of raw material consumption (RCM)'. While most European statistics uses a slightly different measure (DMC),⁹ RCM was used here to take account of materials recorded at border crossings so that they are included as part of the domestic production.

The report showed that resource productivity has been steadily increasing, with an average of 1.9% per year between 2001 and 2011. However, the exact drivers behind resource productivity changes were harder to determine. Looking to the future, a baseline scenario based on the European Commission's own population and economic growth projections was used to produce estimates up to 2030. While there were some caveats surrounding the assumptions in the model, the report concluded that significant resource productivity improvements (2%-2.5% per year) could be made, while increasing economic growth and employment.

[The opportunities to business of improving resource efficiency](#), prepared for the Commission, February 2013

This report attempts to estimate the benefit to businesses of the circular economy. It is based on a literature review, a review of available industry data and examples from case studies. The report focused on three sectors, where most data were available: food and drink manufacturing, fabricated metal products and hospitality, and food services. The potential gross benefits were assessed in these three sectors and estimates were scaled to all sectors in the EU-27. Taking into account different levels of prior resource efficiency, the study estimated a 'theoretically possible' gross benefit ranging from €466 billion to €914 billion¹⁰ to businesses. Taking into account investment costs and using the same efficiency scenarios the report gives a net benefits range between €245 billion to €604 billion. The study also looked at the barriers to improving resource efficiency and noted that more information is needed across sectors about the benefits of resource efficiency. A series of assumptions were made to produce the benefit estimates, particularly around scaling the results across businesses and Member States.

B. Other Reports

[Growth within: A circular economy vision for a competitive Europe](#), Ellen MacArthur Foundation, 2015

This report aims to provide policy-makers with an overview of potential paths towards a circular economy. The study used both an extensive literature review and economic modelling to attempt to quantify the benefits of a circular economy. The study focused in particular on three areas: food, housing, and mobility. The study found that although progress had been made, most resources and products were still being wasted (31% of food is wasted while cars are parked 92% of the time). The report used modelling to estimate the costs of current production and usage methods, while also looking at the potential savings in a more circular economy. The report argued that 'changing to a more circular economy could yield annual benefits of up to €1.8 trillion by 2030'. The report acknowledged that this is a much higher estimate than many other reports, but assumed that technological changes will be much faster than others suggested. However, while technological advances are important, there was still a need for strong decision-making for the circular economy to succeed, as transition costs would be substantial.

⁹ http://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:Domestic_material_consumption_%28DMC%29

¹⁰ The highest benefit refers to 'no businesses have yet optimised their resource efficiency', while the lowest assume that 55% of businesses have 'already optimised their resource efficiency'.

This report is the result of the Commons Environmental Audit Committee hearing on the circular economy. The Committee took evidence from scientific experts, NGOs, industry representative and from the European Commission. The report urged the UK government to 'embrace the EU's ambitious targets for improving resource productivity by 30%'. The report also noted that barriers to the circular economy remain, and that these could potentially be addressed by tax changes, by rewarding design with low impact on the environment, or by increasing investment to encourage technological improvements. Many of those giving evidence also reported that a lack of data was problematic, with the quantity of waste generated and managed by commerce and industry, in particular the construction industry, being unknown.

2.2. Waste management

A. European Commission Reports

[Assessment of separate collection schemes in the 28 capitals of the EU](#), prepared for the European Commission, November 2015

This study looked at how the capital cities of all Member States have implemented the requirements in the WFD to set up separate waste collection systems for paper, metal, plastic and glass by 2015. The report built on a review of the implementation of law in all EU-28 countries and of the literature to identify best practice. Collection systems within and across Member States varied and the report showed that only 19% of generated municipal waste was *collected separately* (from 189 kg per capita in Luxembourg to 5 kg per capita in Zagreb). Reviewing best practice in top-performing cities such as Ljubljana and Helsinki, the report concluded that strict separate waste collection and door-to-door collection systems led to higher recycling rates. The implementation of 'Pay as You Throw' schemes also contributed positively to higher recycling rates.

[Development of Guidance on Extended Producer Responsibility \(EPR\) 2014](#), prepared for the European Commission, 2014

This study aimed to assess the implementation of Extended Producer Responsibility (EPR) and to identify how to best design these schemes. EPR refers to producers being involved in the collection and recycling of their products. The study looked at EPR schemes for batteries, end-of-life vehicles, graphic paper, oils, packaging, and electrical and electronic equipment waste in a variety of countries.

The study was hampered by a lack of data and a lack of transparency in the data collection. However, the review showed that the implementation of these schemes had been carried out very differently across Member States. The report concluded that often the most effective schemes were not the most costly, that fees paid by the producers varied greatly across all products reviewed and that currently not one EPR model outperformed all others.

[Support to Member States in Improving Waste Management Based on Assessment of Member States' Performance](#), prepared for the Commission, 2013

This study aimed to identify the ten Member States struggling most with implementing waste legislation, and to subsequently develop country-specific recommendations to improve their waste management performance. This report is a follow-up on a recommendation from the 2010 Commission-sponsored report on the [Thematic Strategy on the Prevention and Recycling of Waste](#). The initial assessments in this report were also published in [2012](#).

A total of 18 waste management assessment criteria were developed, with countries being scored on each of them.¹¹ The criteria covered the areas of: waste management hierarchy compliance; existence and application of economic and legal instruments; existence of treatment facilities and future planning on waste; performance against landfill targets for municipal waste; and number of infringement procedures and court cases for non-compliance with EU

¹¹ Countries were given a score of 2, 1 or 0 on each waste management criteria, some criteria were weighted. A final score was then given with some of the lowest scores being selected for additional support.

waste legislation. The exercise led to three groups emerging (above average performance, average, and below). The third group included the twelve Member States with the largest implementation gaps achieving an overall score between three and 18. From this group, ten countries¹² were selected to receive particular support.

Overall, the report concluded that the wide disparity between Member State implementation prevented the EU from benefiting fully from the economic potential of a well-functioning waste management industry.

[Use of economic instruments and waste management performance](#), prepared for the Commission, 2012

This study reviewed the use of different economic instruments (EI) by Member States and their impact on waste management systems. The study draws on a literature review, collection of available quantitative data and stakeholder consultations. In particular the report looked at: 1) Charges for waste disposal and treatment (landfill and incineration taxes and fees); 2) Pay as You Throw (PAYT) schemes; and 3) Producer responsibility schemes for specific waste streams (notably packaging, WEEE, ELV and batteries).

The report did not look at all Member States in equal measure, partly because not all Member States had the EI discussed in the report in place, and partly because data was not always available. Therefore, much of the results represented potential trends more than exact relationships. The report found that there appeared to be a clear relationship between higher landfill taxes and less municipal waste; however, landfill restriction may also have an effect on this relationship. In terms of PAYT, while 17 countries used the schemes, their application varied widely across the EU. Schemes obliging producers to support recycling, for example, also varied widely, with only three Member States having producer fees that covered the full cost of waste to local authorities. The report stressed the importance of giving Member States the flexibility to implement any economic instruments in the most appropriate way, and for a mix of legislative and non-legislative incentives. The report gave 11 policy options, ranging from guidance tools to fees and incentives.

[Implementing EU waste legislation for green growth](#), prepared for the Commission, 2011

This report aimed to provide the European Commission with some policy options to improve the implementation of EU waste legislation across the EU. The study looked at eight waste-related Directives.¹³ It used available data and literature to map the current state of implementation, as well as identifying gaps and barriers. Finally, the report made a series of recommendations to strengthen waste management implementation at EU level, such as better implementation monitoring systems and increased guidance and technical assistance to struggling Member States. The report also suggested that the European Environmental Agency be given an increased role in monitoring waste legislation implementation.

[Study of the coherence of waste legislation](#), prepared for the Commission, 2011

This study undertakes an analysis of the coherency and efficiency of five waste related Directives (Packaging, Batteries, End of life Vehicles, Restriction of Hazardous Substances and Waste Electrical and Electronic Equipment). The study reviewed legislation, assessed evidence on the implementation impacts and consulted with stakeholders. It concluded that the legislation had contributed to environmental and economic benefits, but made some suggestions for improvements such as including a more holistic approach, taking in the waste hierarchy and including the life-cycle approach in all Directives.

B. Other Reports

[Waste prevention in Europe — the status in 2013](#), European Environmental Agency (EEA), 2014

This report looked at Member State¹⁴ progress in setting up waste prevention programmes, a legal obligation by December 2013, following the Waste Directive. The report only reviews whether programmes have been put in place and does not attempt to make any assessment about the quality of the programmes at this stage. The report

¹² Bulgaria, Czech Republic, Greece, Estonia, Italy, Latvia, Lithuania, Poland, Romania and Slovakia

¹³ The following Directives were included: Waste Framework, Landfill, Incineration, Waste Shipment, Batteries and Accumulators, End of Life Vehicles, Packaging and Packaging Waste and Waste Electrical and Electronic Equipment.

¹⁴ The report also includes three EFTA countries with the same legal obligations.

concluded that 18 out of 31 countries had set up waste prevention programmes. These programmes varied considerably. Some programmes included stakeholder involvement, regular progress reports and evaluations, while others did not. In terms of scope, all programmes included household and public sectors, but only some included other sectors such as agriculture. Some countries had agreed quantitative prevention targets while others had not, citing unreliable data as a main reason. Progress so far was inconsistent and varied considerably depending on the country.

[Managing municipal solid waste: a review of achievements in 32 European countries](#) EEA, 2013

This study provided an overview of the progress made in the area of municipal waste and in particular whether the target of a 50% recycling of municipal solid waste by 2020 would be achieved. The study included all current Member States.

The report noted that, in general, there had been an increase in the proportion of municipal waste recycled. The recycling of materials is still more frequent than bio-waste recycling. The report also noted that within countries there can be substantial regional differences in recycling, emphasising the need for better local waste management strategies. All in all, the likely achievement of the 50% recycling target was mixed across the EU, with many countries needing to make 'extraordinary efforts' to meet the set targets by 2020. The report further noted the difficulty in comparing data due to different definitions being used and varying quality of data. It noted that for example some countries do not include packaging waste recycling in their data on municipal waste. The report called for a more consistent approach to data collection.

[Impact Assessment of Recycling Targets in the Waste Framework Directive](#), European Parliament, May 2008¹⁵

This study looked at the potential for setting binding targets in the area of waste and was produced ahead of the Waste Framework Directive in 2008. It focused particularly on the 50% recycling of household waste and 70% construction waste as proposed in the Waste Framework Directive. The report concluded that both targets were feasible but would represent different challenges. While around 95% of construction waste was recyclable, only about 75% of household waste could easily be recycled. This meant that bio-waste had to be recycled for the target to be met. There were also other factors which would make recycling of waste more, or less, difficult. Member States' previous interest in recycling, rural/urban geography, cost of transport, the possibilities of avoiding detection of illegal waste dumping, and current waste infrastructure and consumption, were important factors that would determine the successful achievement of the targets. For example, Northern and Western Europe consume more paper and cardboard than other parts of Europe and this was relatively easy to recycle. The report also pointed out that the landfill target could work against the waste targets as the Landfill Directive allows waste to be incinerated rather than recycled. The report recommended that different targets for plastic, paper, glass etc. be set along with one overall waste target, so that industrial waste, which was difficult to define, would still be covered.

3. European Parliament position

The Parliament has shown strong support for the circular economy, both in terms of its importance for the environment and for job creation. It has generally favoured ambitious targets to increase recycling rates and to phase out landfill, as well as improving the implementation of waste legislation across the EU.

In a [resolution](#) on 9 July 2015 on 'resource efficiency: moving towards a circular economy', the Parliament called for the European Commission to put forward its proposal on the circular economy by the end of 2015 as announced. In particular, it urged the Commission to include proposals on waste legislation with clear definitions, preventative measures and binding targets for municipal, commercial and industrial waste. This should include increasing recycling/preparation for re-use targets to at least 70% of municipal solid waste and an 80% target for recycling of packaging waste by 2030. Monitoring should be facilitated by harmonising reporting and by producing externally verified statistics. It also called for resource efficiency targets at EU level to be increased by 30% by 2030 compared to 2014 levels, for a binding food waste reduction target of at least 30% and a ban on landfill by 2030.

¹⁵ Study commissioned by the Policy Department Economic and Scientific Policy, DG Internal Policies, European Parliament

In an own initiative [resolution](#) on 14 January 2014, members called for a review of the Packaging Directive, proposing ambitious binding targets for collection, sorting and recycling of plastic waste, EU-wide harmonisation of criteria for waste management and specific labelling to inform consumers about the recyclability of material. The resolution also called for better implementation of EU waste legislation and the phasing-out of recoverable waste in landfill.

4. Members' questions

Several Members of the European Parliament have asked questions related to the circular economy. In the current parliamentary term many questions have related to the withdrawal of the circular economy package, and the content of the new proposal in terms of targets and other specific actions.¹⁶ More specific topics have included questions on food waste, impact on employment and more actions to promote awareness as well as research.¹⁷ In terms of waste, a large number of questions were asked, ranging from questions on food waste to questions related to local waste management infrastructure.

[Written question](#) by MEP Lynn Boylan (GUE/NGL), 8 January 2015

The Commission is asked to give reassurances that the new circular economy proposal will not be watered down.

[Answer by the European Commission, 17 March 2015](#)

The Commission explained that the new proposal will take better account of Member States' different situations and that it will address the whole cycle, from design to re-use.

[Written question](#) by MEP György Hölvényi (PPE), 9 July 2015

This question asks what actions will be taken to reduce food waste in the new circular economy package and whether 2016 could be the European Year for Reducing Food Wastage.

[Answer by the European Commission, 10 September 2015](#)

The Commission stated that it was still exploring options and that prevention of food waste was one such option and that it had not yet decided on the focus of the 2016 European Year.

5. Consultations, Surveys and Petitions

[Attitudes of Europeans towards Waste Management and Resource Efficiency](#), Eurobarometer 388, (2013)

A telephone survey of 26,595 people was carried out in December 2013 on the above topics. In terms of waste, while most respondents (87%) felt that their country generated too much waste, only 43% felt that this was also applicable to them. Most respondents made a concerted effort to reduce waste, mainly by buying only what they needed (83%) or by repairing appliances (77%). Sorting and recycling varied from country to country. In countries like Belgium, Germany, Ireland, Austria and the UK, at least 70% said that they sorted all types of waste¹⁸ at least occasionally. Paper and plastic were the most common types of recycled waste, with an EU average of 90% of respondents saying that they recycled these occasionally. The lowest figures were from Romania, Bulgaria and Latvia, with around two thirds or less of those surveyed recycling paper and plastic. A better recycling infrastructure and reassurance that waste was actually recycled, were key to convince those not recycling to start doing so. While most respondents reported no litter problem where they lived, in Greece, Slovakia and Italy around 50% or more felt there was considerable rubbish in the area where they lived. When it came to the financing of household waste management, respondents either preferred to pay for the proportion of unsorted waste generated (44%) or that waste management costs were included upfront in the product price (30%).

The European Commission held a [consultation](#) to seek stakeholders' views on options to develop the new circular economy proposal between May and August 2015. The consultation sought views on measures to promote the

¹⁶ [E-007127/2015](#), [E-006753/2015](#), [E-005977/2015](#), [E-005097/2015](#), [E-005030/2015](#), [E-004571/2015](#), [E-004525/2015](#), [E-004467/2015](#), [E-001489/2015](#), [E-001198/2015](#), [P-000271/2015](#), [E-000176/2015](#), [E-011117/2014](#), [P-011062/2014](#), [E-010998/2014](#), [E-010161/2014](#), [E-010120/2014](#), and [E-009639/2014](#).

¹⁷ [E-014438-15](#), [E-011901/2015](#), [E-011093/2015](#), [E-010719/2015](#), [E-010665/2015](#), [E-010067/2015](#), [E-008990/2015](#), [E-013860/2015](#), [E-013158/2015](#), [E-013142/2015](#), [E-001836/2015](#), [E-002766/2015](#), [E-005042/2015](#), [E-005747/2015](#), [E-006083/2015](#), [E-006627/2014](#), [E-008165/2015](#), [E-007864/2015](#) and [E-007495/2015](#).

¹⁸ Paper, plastic, glass, household hazardous waste, kitchen waste, garden waste, metal cans and electronic and electrical waste

circular economy as well as what products and actions should be prioritised and what the main barriers to a circular economy were. The analysed results are not yet available, but from the [statistics available](#) it appears that over a thousand responses were received.

A consultation on the [review of waste management targets](#) which included the Waste, Packaging and Landfill Directives was held in 2013. A total of 670 responses were received with around a third coming from industry. Respondents were asked to choose between a series of policy options related to waste legislation. Most respondents strongly supported better quality assurance of Member States' reports on waste management as well as consistent definitions and calculation methods for all waste targets. Opinions varied more widely in the other areas of the consultation, but in terms of Waste Framework Directive, most preferred the use of a single target for municipal waste rather than one for household waste. In terms of landfill, there was no broad agreement for the suggestion to revise targets for countries whose economies are growing faster after starting from a lower base, but most supported removing an upper limit for how much packaging waste a country can recycle.

The area of waste management generates considerable public interest and petitions to the European Parliament. In 2011, the Petitions Committee therefore decided to draw up a report on [Waste Management in Europe: main problem and best practices](#). It analyses 101 petitions submitted to the Parliament's Petitions Committee between 2004 and 2010. The report centred on three areas: permit procedure for landfills, operation of waste management facilities and potential deficiencies in waste management systems. The report made a series of recommendations to address the issues, such as better public consultation and better monitoring of compliance with EU and national legislation.

6. European Economic and Social Committee and Committee of the Regions

When the initial circular economy initiative was presented, the **European Economic and Social Committee** (EESC) adopted its [opinion](#) on the legislative proposal on 11 December 2014 'Towards a circular economy: A zero waste programme for Europe'. The EESC supported the proposal, in particular the focus on the full product lifecycle from raw material to waste, but regretted that the proposals were too focused on waste. In its [opinion](#) on the Job Creation and the Green Action Plan for SMEs from 11 December 2014, the EESC voiced support for the circular economy as a motor for jobs and prosperity, but stressed that the transition to a circular economy needed to be based on a shared understanding among private and public stakeholders.

In the **Committee of Regions' (CoR)** [opinion](#) adopted on 12 February 2015 'Towards a circular economy: review of EU waste legislation', the CoR welcomed the package and emphasised the key role of regional actors in implementing the targets. The opinion called for ambitious targets in recycling and reuse to be maintained, and support for clear definitions and uniform calculations of recycling targets. The Committee also requested a mandatory target for municipal waste and called for at least a 30% increase in resource productivity by 2030. The opinion also expressed its disappointment with the withdrawal of the legislative proposals. In an [opinion](#) from 8 October 2013 on the 'Green Paper on a European Strategy on Plastic Waste in the Environment' the Committee called for ambitious targets for plastic reuse and waste. It urged the European Commission to adopt a landfill ban on plastics and highly-combustible waste by 2020, to phase out funding for landfill completely, and to fully implement the polluter pays principle.

7. European Court of Auditors

[Is Structural Measures Funding for Municipal Waste Management Infrastructure Projects Effective in Helping Member States Achieve EU Waste Policy Objectives?](#) , Special Report No. 20, 2012

This report looked at the effectiveness of EU's funding of municipal waste management infrastructure and whether it contributed to Member States achieving their waste targets. The report looked at 26 waste management infrastructures across eight regions in four Member States (Italy, Portugal, Romania and Spain). These areas were chosen as they had received substantial financial support from EU between 2000 and 2006. The report looked across all types of waste treatment infrastructure, from sorting and composting, to incineration and landfill. The report noted that although some improvements had been made, success was highly dependent on whether robust waste management strategies were already well-established. In particular, the report noted that the most successful regions had well-defined supporting measures such as information campaigns, or economic instruments such as landfill taxes

and 'Pay as You Throw' schemes already in place. The report encouraged Member States to focus on developing separate strategies for different waste and consider introducing landfill taxes to increase recycling.

The report concluded that supporting measures and reliable waste management data should be conditions for future funding. The report also made recommendations to the Commission such as proposing waste prevention targets, clarifying the concept of treatment before disposal and providing best practice guidance on landfill waste treatment.

8. Conclusions

While the overall circular economy package is broader than the withdrawn proposals, in the area of waste the changes now presented are somewhat less ambitious when it comes to actual targets. Studies have shown that while targets are important to drive up performance, they need to be accompanied with additional measures from within Member States, such as information campaigns, financial incentives or taxes. The monitoring of Member States performance will be crucial to succeed, and while monitoring systems have been put in place, the question is whether they go far enough to address the issues around unreliable and non-comparable data which has hampered most assessments so far. There is also a question whether additional targets preventing waste should have been set.

9. Other sources of information

EPRS

- [Technology options for feeding 10 billion people: Options for Cutting Food Waste](#) STOA, 2013
- [Tackling food waste – The EU's contribution to a global issue](#) Ivana Katsarova, 2014
- [Closing the Loop: New circular economy package](#) Didier Bourguignon, 2016
- [Circular economy package](#): four legislative proposals on waste Didier Bourguignon, 2016
- [Resource efficiency and waste](#) Jan Tymowski, 2014

Ellen Macarthur Foundation <http://www.ellenmacarthurfoundation.org/>

European Environment Agency: [The European environment — state and outlook 2015](#)

European Environmental Bureau <http://www.eeb.org/>

Business Europe <https://www.businesseurope.eu/policies/energy-and-environment/circular-economy>

UN's International Resource Panel <http://www.unep.org/resourcepanel/>

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