Country fact sheet

Municipal waste management

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Belgium

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European Topic Centre on Waste and
Materials in a Green Economy

Context

This country profile was prepared within the EEA's work on municipal waste, resulting in the following outcomes:

- 32 country profiles (this document) – The country profiles were originally produced by the ETC/SCP and were published by the EEA in 2013. The ETC/WMGE updated them for the EEA under its 2015 and 2016 work programme.

- An EEA briefing on Municipal waste management across European countries

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Related country information

Country information on waste prevention programmes can be found at:
http://www.eea.europa.eu/publications/waste-prevention-in-europe-2015

For country profiles on material resource efficiency policies, please visit:
http://www.eea.europa.eu/publications/more-from-less/

Contents

Highlights

- Belgium has already met all the diversion targets of the EU Landfill Directive for biodegradable municipal waste (BMW) and the EU Waste Framework Directive's 50 % recycling target for municipal waste.
- Significant differences in municipal waste (MSW) recycling rates exist between the Brussels Capital Region (BCR), Flanders and Wallonia: rates for material and organic waste recycling were highest in Flanders throughout the period 2001–2013, while the BCR has made most progress, especially in material recycling.
- Belgium has one of the highest landfill taxes and landfill tax rate increases in the EU, combined with a selective landfill ban. Together these seem to have effectively diverted waste from landfill to recycling.
- A portfolio of policy instruments has been used to achieve the high recycling rate, although it has not been implemented uniformly across the different Belgian regions.
- The Brussels Capital region (BCR) has instituted mandatory waste separation by householders with fines up to EUR 625 for non-compliance from 2010
- The Flanders region applies mandatory quality thresholds for separately collected waste and mandatory maximum quantity thresholds for residual waste generation.

1 Introduction

1.1 Objective

Based on historical municipal waste (MSW) data for each country and EU targets linked to MSW in the Waste Framework Directive (2008/98/EC), the Landfill Directive (1999/31/EC) and the Packaging and Packaging Waste Directive (94/62/EC), the analysis undertaken includes:

- the historical performance on MSW management based on a set of indicators;
- uncertainties that might explain differences between the countries' performance which are more linked to differences of what the reporting includes than to differences in management performance;
- the country's most important initiatives taken to improve the management of MSW; and
- possible future trends.

2 Belgium's municipal waste management performance

Waste management in Belgium is the responsibility of the three regions: the Brussels Capital Region (BCR), Flanders and Wallonia, in which waste management planning and statistical reporting are undertaken by three separate entities. All the relevant waste related statistics are submitted individually to Eurostat, which compiles the information and provides national data. This report presents an *ex-post* analysis for the whole country, but efforts are made to include the regional differences, based on available information.

Belgium has both household waste both door-to-door collections and bring sites. The collection frequency ranges from weekly to monthly, depending on the material type. Pruned wood is collected four times a year where the service is available. (Gibbs *et al.*, 2014a)

In total, 4.9 million tonnes of MSW were generated in Belgium in 2013, of which 9 % is generated in the BCR, 59 % in Flanders and 32 % in Wallonia. These shares have remained practically constant between 2000 and 2013.

All regions in Belgium incinerate the vast majority of their residual waste. Organic waste is composted in all regions and, in addition, anaerobic digestion is used in Flanders and Wallonia. Mechanical biological treatment (MBT) is not currently widespread in Belgium; the technology is only applied in Flanders. (Gibbs *et al.*, 2014a)

The Brussels Capital Region

Population density and urbanisation in the BCR is very high, and its economy is primarily service orientated. This affects effective waste management because of a paucity of space for waste management infrastructure, for example there is a lack of bring sites. Two complementary institutions are concerned with waste management: Bruxelles Environnement is responsible for waste prevention and management policy, and Agence Bruxelles Propreté looks after municipal waste collection and waste treatment.

The region has published three five-year waste management plans (WMP). According to an assessment of the 2003–2007 WMP (IBGE, 2008), the region depends on the waste management

systems and policies of the other regions of Belgium because it has no landfill capacity. The main objective of the WMPs is to highlight the various instruments needed to promote waste prevention.

Extended producer responsibility (EPR), which has been harmonised between the three Belgian regions, is applied to 11 waste flows, and more specifically to fractions of them potentially found in MSW, such as batteries and accumulators, out of date or unused medicines, paper and cardboard, and packaging,. Other wastes subject to EPR, such as end of life vehicles, are generally not expected to be collected by municipalities.The EPR regulation. According to the WMP 2010 (IBGE, 2010), the EPR has been a significant driver of the increase in the recycling rate in the Brussels Capital Region.

Since 2010, the separation of paper, plastic, composite materials and metals in household waste into three differently coloured waste bags is mandatory in the BCR, and glass is mainly collected at bring sites. The region has two civic amenity sites where the citizens can bring up to 3 cubic metres of all types of waste free of charge including bulky waste, waste electric and electronic waste (WEEE) and hazardous wastes. There are also separate door-to-door collections of green garden waste in green waste bags and, after a successful pilot project in 2013, separate door-to-door collections of kitchen waste (food waste) will be introduced for the whole region in 2016. (Bipro and CRI, 2015)

Flanders

Flanders has a long history of WMPs (OVAM, 2004). The first was for 1986–1990, with a focus on closing down existing landfills and developing new higher-standard ones. This plan also included the maximum use of the incineration capacity and the separate collection of MSW was initiated. Landfill and incineration costs were increased to promote waste separation and recycling.

A second WMP, in force between 1991 and 1995, specifically emphasised the separate collection of waste with the overall objective of waste prevention and material recovery. The 1997–2001 WMP initiated quantitative targets for the maximum amount of residual waste generated by inhabitant – a reduction from 255 kilograms per person in 1998 to 220 kg in 2001 and on long term towards 150 kilograms (2010).

The 2003–2007 plan indicated tighter targets – a reduction from 180 kilograms per person in 2003 to 150 kilograms in 2007. The plan also included other key policy aspects, such as the promotion of organic waste recycling, 13 % waste prevention by 2007 compared to 2000, a target to separately collect and recycle 70 % of all MSW.

The following plan 2007-2011 maintained the tight target of 150 kg per inhabitant, with focus on the least scoring municipalities. It is worth noting that Flanders has also introduced quality thresholds for separately collected waste – a maximum of 3 % impurities each for vegetable, fruit and garden waste (VFG), green waste, cardboard and paper; 5 % for wood and glass waste; 15 % for construction and demolition waste and 5–15 % for textile waste (OVAM, 2008).

Finally, a landfill ban and an incineration ban of selected waste streams have been in place since 1998 (ETC/SCP, 2008). In 2004, in Flanders, 71 % of household waste was collected separately and only 4 % landfilled.

Flanders currently aims to align the door-to-door collection systems throughout the region for paper, metal, plastic and glass, but differences in municipal services will remain for bio-waste and other waste types – for example regarding tariffs, collection frequency, and the collection system. Additionally, Flanders has civic amenity sites serving households, and a deposit system is in place for refillable glass beverage bottles. (Bipro and CRI, 2015)

One of the key elements of Flemish waste policy is the encouragement of home composting for vegetable, fruit and garden waste, and thereby to use the organic waste as a basic material within a closed loop, or bio-cycle. Around 2 700 active ‘master composters’ have received training from the

Flemish Compost organisation (Vlaco), while courses, campaigns and information materials are addressed to the wider public. As a result, about 52 % of all the population compost at home – up from 5 % in 1991 – and an estimated 106 000 tonnes of bio-waste are treated this way (Van Stichelen, 2015).

The 2008–2015 WMP has the following objectives: more environmentally beneficial consumption, no more than 560 kilograms of waste produced per person per year and no more than 150 kilograms of residual waste produced per person per year.

Generally, a number of instruments have been used to move waste management further up in the waste hierarchy, promoting prevention and material recovery. These include obligatory source separated waste collection in urban and rural areas, subsidies for reuse centres, pay-as-you-throw schemes, producer responsibility, landfill and incineration taxes as well as selective bans, quotas on waste production per person, and communication such as public campaigns.

Wallonia

Wallonia's recent waste management strategy has been driven by the implementation of WMPs. The general objectives of the first WMP, covering 1991–1995, were to promote waste prevention, material and energy recovery – through the development of infrastructure, optimisation of waste management technology and pollution control, higher control of movements of waste, the more consistent collection of waste statistics and the further development of the institutional framework for the management and control of waste (DGO3, 1991).

The first plan also included the further development of the separate collection of waste – door-to-door collection, collection points in streets and civic amenity sites. Source separation of waste includes glass using collection points, and paper and cardboard, metals, plastics, textiles, and used engine oil through civic amenity sites and kerbside collection. Only 15 % of the source separated waste, however, was actually sent for recycling at that time (DGO3, 1998).

The objectives of the second plan (1998–2010) reinforced the objectives stated of the first Walloon WMP. In addition, it included some quantitative targets such as halving household and industrial waste generation by 2010 (waste prevention target). Municipal waste sent to incineration was expected to increase from 480 000 tonnes to 733 000 tonnes, including 617 000 tonnes of MSW, by 2010, drastically reducing the amount of waste sent to landfill. The plan also indicated that a strong increase in biological treatment was expected but no quantitative target was set. A new WMP is in development and should be officially adopted in late 2016. (Bipro and CRI, 2015). Until then, the previous WMP applies.

An assessment of Wallonia's WMP, carried out in 2011 (DGO3, 2011), indicated that a slight reduction in MSW generated was achieved between 2001 and 2010. A more significant reduction in mixed and separately collected household waste occurred in the same period. However, other than in 2010, a significant increase in bulky household waste, including inerts, appliances, furniture and garden waste, was observed.

The assessment also noted that recovery of materials and oganics from MSW increased by 49 % between 2000 and 2004, but the rate of increase slowed in 2008–2010. A significant increase in incineration occurred between 2004 and 2010. Finally landfilling decreased drastically, especially in 2008–2010.

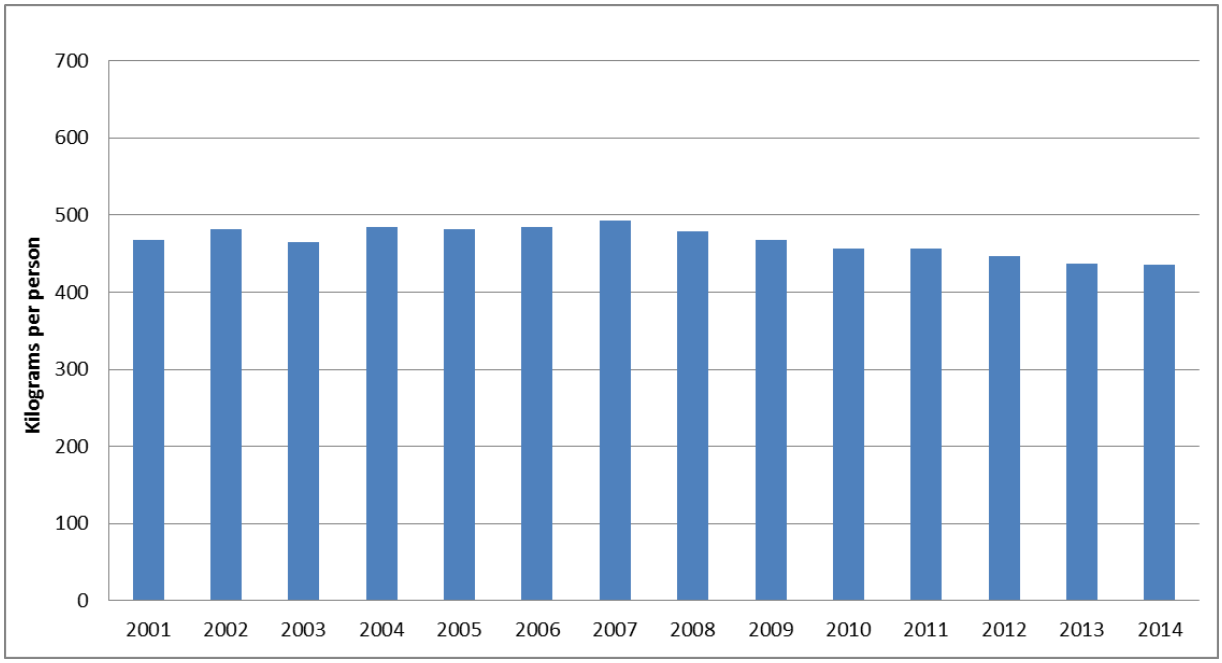
The separate collection systems in Wallonia include separate collection of glass and textiles at collection points, civic amenity sites for the collection of green waste, paper, metals, plastic, glass, textiles, asbestos, WEEE, bulky waste, oils, tyres and small hazardous wastes and separate door-to-door collection of paper, packaging waste, organic waste and bulky waste. The majority, close to 40 %, of source separated waste is collected via civic amenity sites. (Bipro and CRI, 2015).

2.1 Municipal waste indicators

The following indicators illustrate the development of Belgian MSW generation and management in 2001–2014. All percentages have been calculated as proportions of generated waste, rather than treated waste. However, the reported amounts of generated MSW and treated MSW are the same (Eurostat, 2016).

Figure 2. shows the evolution of MSW generated per person between 2001 and 2014, when average generation per person over the period was 467 kilograms. While this fluctuated slightly, the amount has decreased from a maximum of 494 kilograms per person in 2007 to 435 kilograms in 2014. Meanwhile, the absolute amount of MSW generated in 2014 (4.8 million tonnes) was even slightly higher than in 2001 (4.8 million tonnes) due to an increase in population.

Figure 2.0 Belgium, municipal waste generation per person, 2001-2014

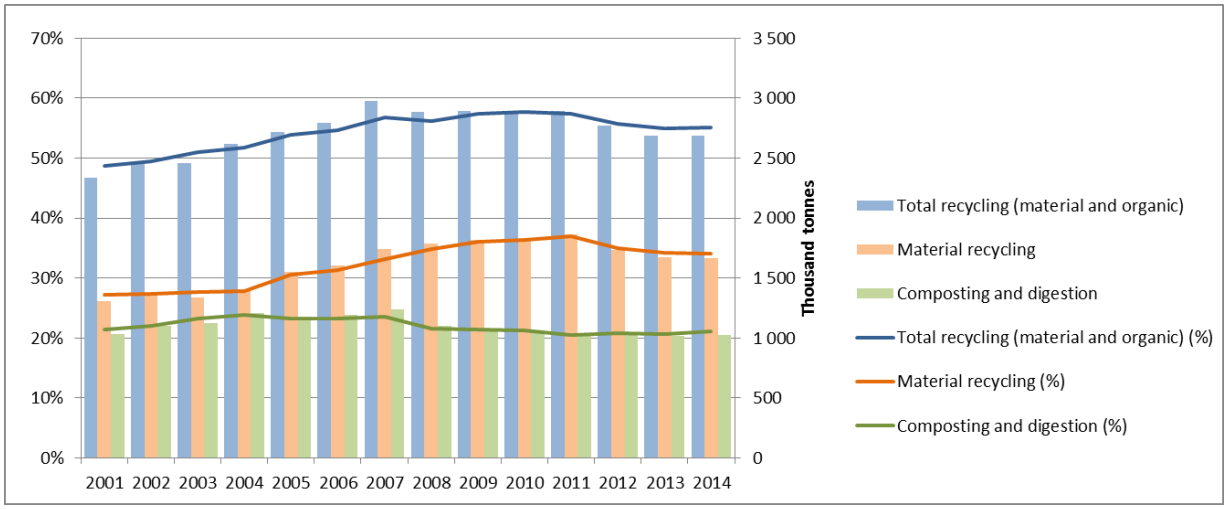


Source: Eurostat, 2016

2.1.1 Municipal waste recycling from 2001 to 2014

Figure 2.1 shows the development of MSW recycling in Belgium related to total, material and organic (compost and other biological treatment) recycling.

Figure 2.1 Belgium, recycling of municipal waste, 2001–2014, per cent and tonnes



Source: Eurostat, 2016.

On a national level (Figure 2.), the recycling rate has been above 50 % of the generated amount of MSW since 2004. It peaked at 58 % in 2010, mainly due to an increase in material recycling. However, since 2011, the recycling rate has decreased slightly – to 55 % in 2014. As the organic recycling rate has remained steady since 2009, this implies a decline in material recycling.

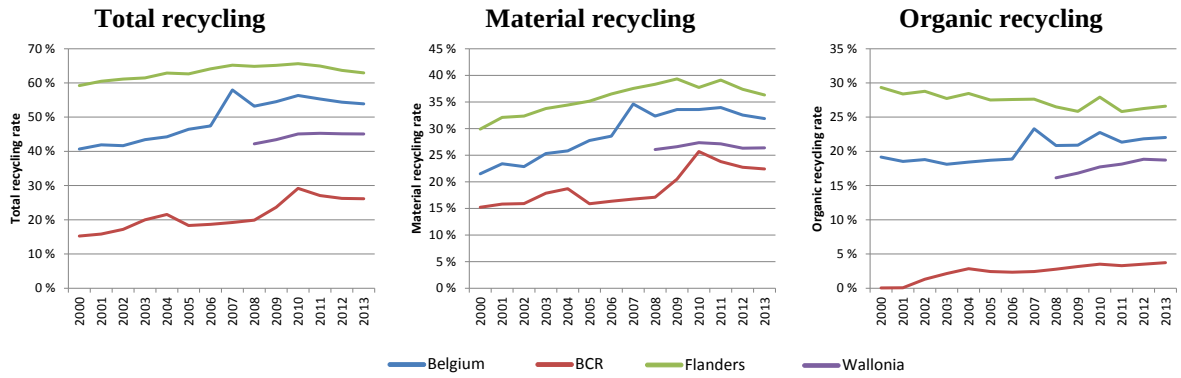
The EU's 2008 WFD includes a target for certain fractions of MSW: 'by 2020, the preparing for re-use and the recycling of waste materials such as at least paper, metal, plastic and glass from households and possibly from other origins as far as these waste streams are similar to waste from households shall be increased to a minimum of overall 50 % by weight'. EU Member States may choose between four different methodologies for calculating compliance with the target[1]. Belgium has chosen calculation method 4 (Gibbs *et al.*, 2014). The recycling rates shown in this paper also correspond to method 4, the only method for which time series data exist. According to Eurostat data the current target has already been achieved by Belgium. In 2015, the European Commission proposed new targets for municipal waste of 60 % recycling and preparing for reuse by 2025 and 65 % by 2030, based on only one calculation method, and with the possibility of time derogations for some countries (EC, 2015).

As the three regions of Belgium have separate waste management strategies, it therefore makes sense to undertake a more complete analysis of the recycling performance of each of them. In order to perform this analysis, the municipality data (NUTS2 level) has been compiled in their respective regions from Eurostat's regional dataset (Eurostat, 2015a) (Figure 2.2), while Figure 2.1 was compiled based on national data (Eurostat, 2016). **Error! Reference source not found.** shows a comparison between the three regions, including the national data (simple sum of the regional data). In the left-hand graph, the total recycling rate, including material and organic recycling, is shown. The central graph shows the material recycling performance as a percentage of MSW generated. Finally, the right-hand graph shows the organic recycling rate as a percentage of MSW generated for each region.

[1] Commission Decision 2011/753/EU allows countries to choose between four different calculation methods to report compliance with this target. Member States have the option of considering four alternative waste streams and fractions:

1. paper, metal, plastic and glass household waste;
2. paper, metal, plastic, glass household waste and other single types of household waste or of similar waste from other origins;
3. household waste;
4. municipal waste (the method used in this document).

Figure 2.2 Belgium, recycling of municipal waste in the Brussels Capital Region, Flanders and Wallonia, 2000–2013, per cent



Source: Eurostat, 2015a.
Note: Data for Wallonia is only available at Eurostat from 2008; 2013 data are the latest available.

The very different profiles shown are at least partly due to inconsistencies in reporting that need to be addressed.

Figure 2.2 shows that Flanders has consistently had the highest level of recycling for both material recycling and organic recycling, compared to the other Belgian regions. While the overall recycling rate increased in Flanders from 60 % in 2001 to 65 % in 2009, the organic recycling rate decreased over time from a high of 29 % in 2001 to a low of 26 % in 2008. In Flanders the overall recycling rate was 63 % and the organic recycling rate 27 % in 2013. The BCR has had historically low total MSW recycling rates which have changed from 16 % in 2001 to 26 % in 2013. Data for Wallonia is only available at Eurostat from 2008, since when recycling has increased, especially organic recycling which has risen from16 % in 2008 to 19 % in 2013.

The rates of separate collection and mixed waste collection together with different municipal policies may explain the differences in recycling performance in the three regions (Table 2.1). In Flanders, 70 % of all household waste was collected separately as early as 2005, while the share of separately collected waste was only 22 % in the BCR in 2010.

Table 2.1 Belgium, collection types in the three regions, various dates, per cent of total collected municipal waste

Region	Kerbside Mixed	Kerbside Separate	Civic amenity sites	Recycling banks/bring banks	Comments/references
Flanders	30	70			2005 data, household waste
Wallonia	40	15	40	5	2012 data, MSW
BCR	78	22			2010

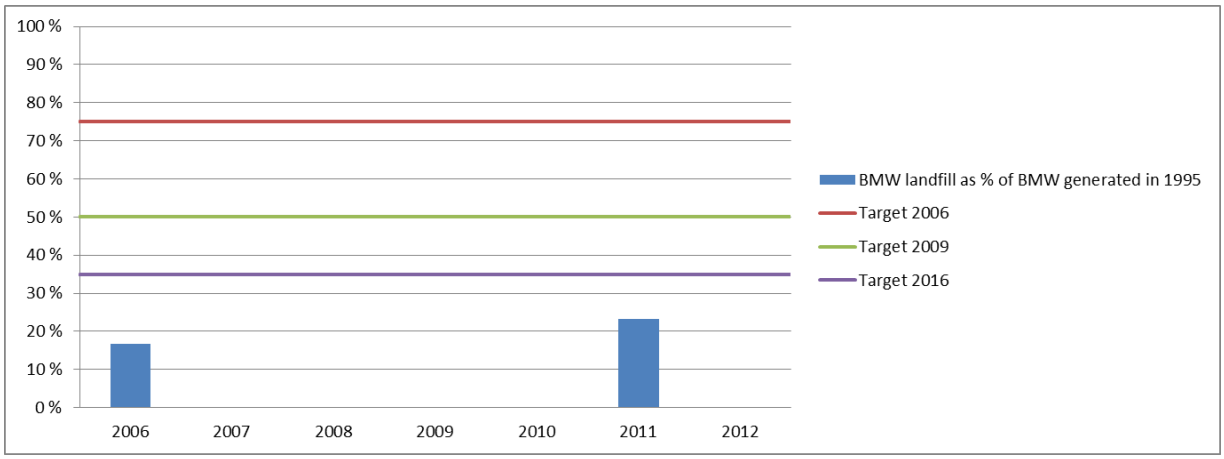
Source: DGO3, 2011; DGO3, 2010; DGO3, 2015

2.1.2 Landfilling of biodegradable municipal waste

According to the EU Landfill Directive, Member States have to reduce the amount of biodegradable municipal waste (BMW) landfilled. It sets specific targets for 2006, 2009 and 2016. The targets are related to a generated amount of BMW in 1995, when Belgium generated 4.262 million tonnes of BMW.

In Belgium, a landfill ban on untreated waste, including BMW, has been in place since 2007. As a consequence, Belgium is compliant with the diversion targets of the Landfill Directive. In Wallonia, the amount of MSW landfilled has decreased drastically from 46 % in 2000 to 3 % in 2010 (DGO3, 2011). In Flanders, the separate collection of bio-waste and garden waste and subsequent bio-treatment was already introduced in 1991 (EEA, 2009).

Figure 2.3 Belgium, landfilling of biodegradable municipal waste, 2006–2012, per cent of biodegradable municipal waste generated in 1995



Source: EC, forthcoming
Note: The European Commission only holds data for the whole of Belgium for 2006 and 2011

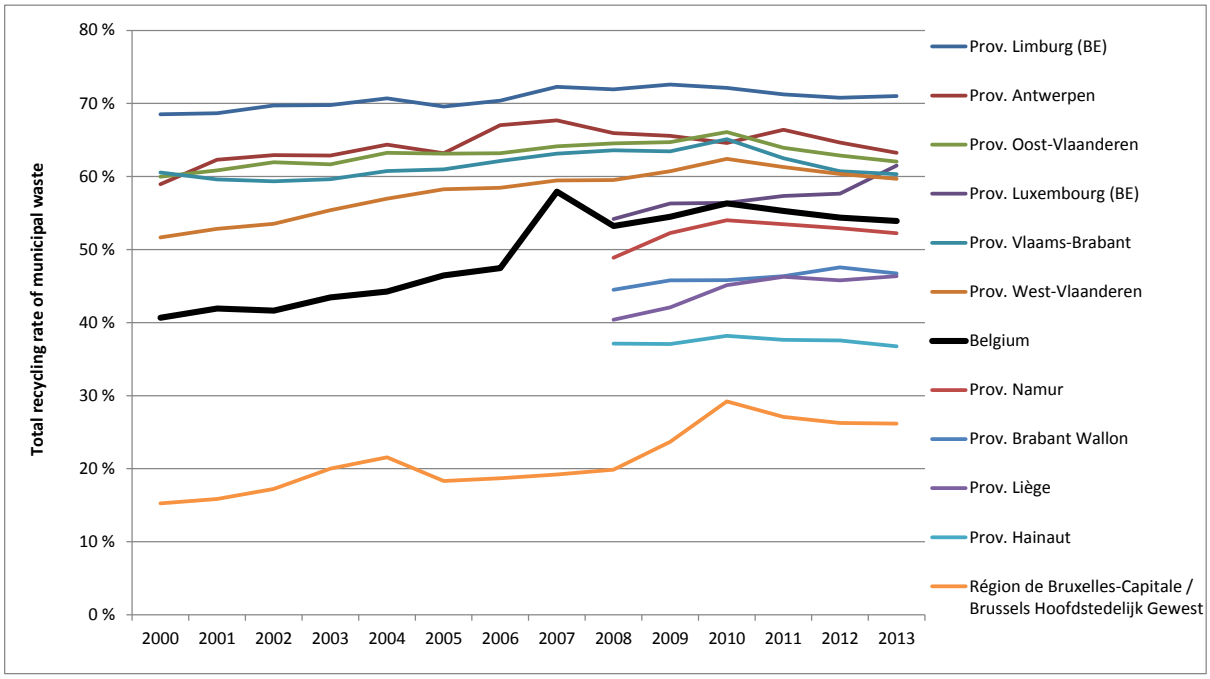
2.1.3 Regional differences in municipal waste recycling, 2000–2013

Figure 2.4 shows regional differences in MSW recycling rates between 2000 and 2013.

Flanders is formed by the provinces of Antwerp (Antwerpen), East Flanders (Oost-Vlaanderen), Flemish Brabant (Vlaams-Brabant), Limburg, and West Flanders (West-Vlaanderen). The provinces of Hainaut, Liège, Luxembourg, Namur, and Walloon Brabant (Brabant Wallon) form Wallonia.

The recycling rates in Belgium are generally very high (Figure 2.), however it is worth noting that the BCR has the lowest overall recycling rate, reportedly caused by a lack of bring sites due to high urban density. Figure 2. also indicates that regions producing the highest amount of waste in the country, such as the provinces of Antwerp and Limburg, Flanders) have achieved very high recycling rates of above 60 %.

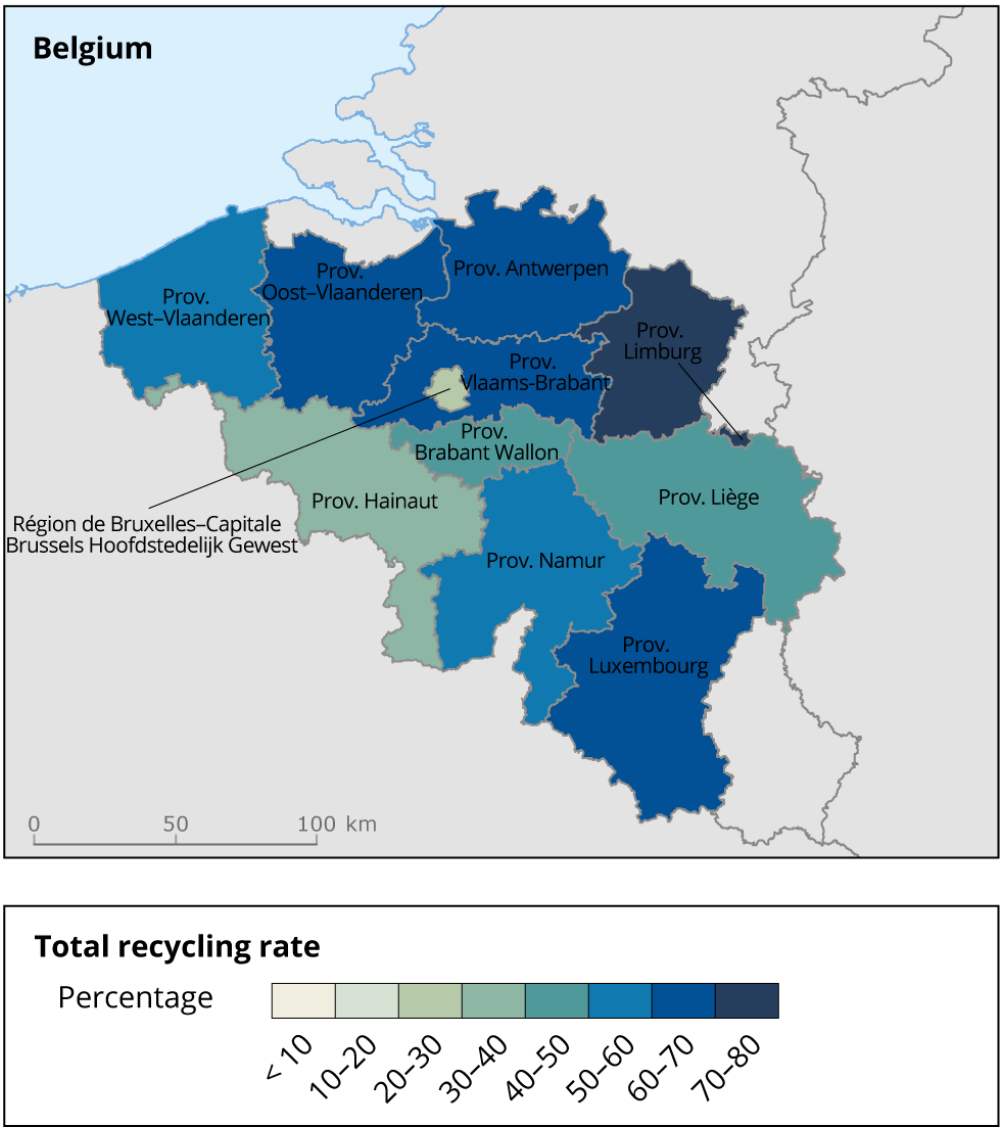
Figure 2.4 Belgium, regional differences in recycling municipal waste, provinces and Brussels Capital Region, 2000–2013, per cent



Source: Eurostat, 2015a.

Figure 2.5 shows regional differences in the MSW recycling in 2013, the latest year for which regional data is available. related to total recycling.

Figure 2.5 Belgium, provincial differences in municipal recycling, 2013



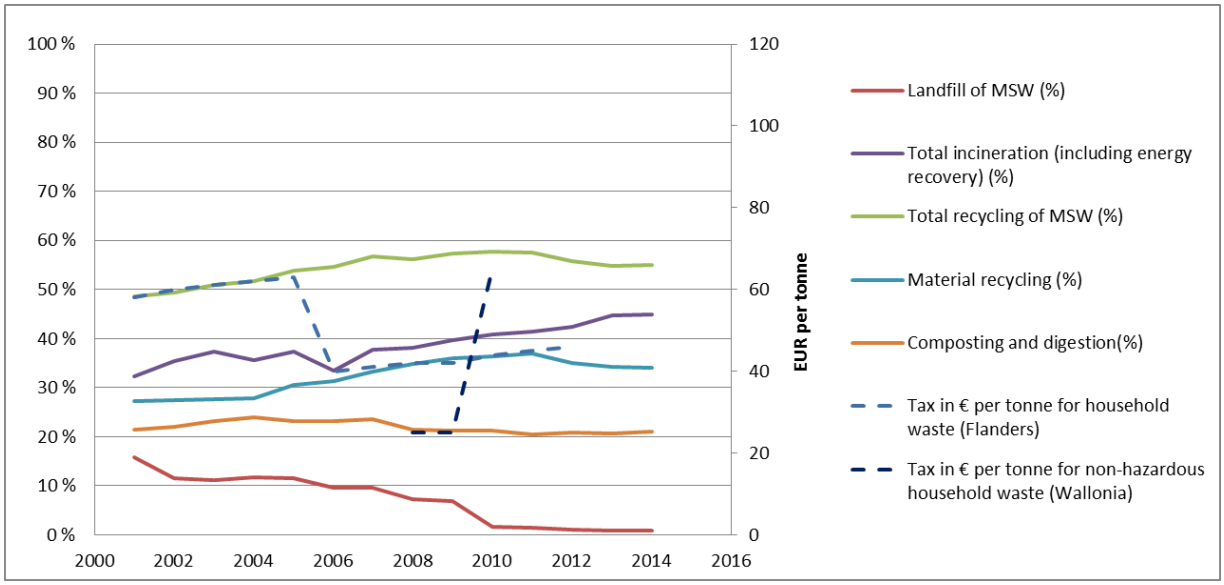
Source: Eurostat, 2015b.

2.1.4 Recycling and landfill taxes

Figure 2.6 shows the evolution of landfill taxes in Flanders and Wallonia along with trends in the shares of MSW sent to landfill, incineration and recycling.

Both Flanders, and more recently, Wallonia have introduced regional landfill taxes, while the Brussels Capital Region, which does not have its own landfill infrastructure and pays the landfill tax due in the region to which its waste is sent. On the national level, the large increase in the Wallonian landfill tax and the continuous application of a landfill tax in Flanders appear to have driven the levels of landfilling nationally down from 11 % of MSW in 2001 to 0.9 % in 2013, while the incineration rate increased from 32 % to 44 %. An increase in material recycling is observed but the recycling of organic waste stagnated at 21 %. Thus, the use of the landfill tax had a significant effect, reducing landfilling with the waste seemingly being redirected to either recycling or incineration.

Figure 2.1 Belgium, landfill tax and the development of recycling, incineration and landfill of municipal waste, 2001–2014, per cent and EUR per tonne



Source: ETC/SCP, 2012, OVAM, 2015, Eurostat, 2016

The landfill tax, combined with a selective landfill ban, seems to have been a significant driver in reducing the landfilling of waste in Belgium. It is, however, probable that a portfolio of instruments used in conjunction are most effective in moving waste up the waste hierarchy – a variable pay-as-you-throw (PAYT) system by volume and by weight, waste tax for all treatments, extended producer responsibility etc.

According to the assessment of its 2010 WMP, Wallonia's capacity for waste incineration with energy recovery more than doubled between 2000 and 2010 – from 400 000 tonnes in 2000 to 850 000 tonnes in 2010 (DGO3, 2011). Of the four municipal waste incinerators present in Wallonia, three have energy recovery and in one facility energy is partly recovered. 1 050 000 tonnes of MSW was incinerated in Flanders, 315 000 tonnes in the BCR (2013 data) (Eurostat, 2015b), and 887 000 tonnes in Wallonia in 2014 (CELINE, 2016). According to the regional statistics from Eurostat, the BCR has not reported any landfilling (Eurostat, 2015b).

In order to further incentivise recycling (IBGE, 2010), Wallonia and Flanders have introduced an incineration tax, ranging from EUR 1 per tonne to EUR 30 per tonne depending on the type of waste and whether or not energy is recovered. The BCR implemented an incineration tax only recently (BiPRO and CRI, 2015).

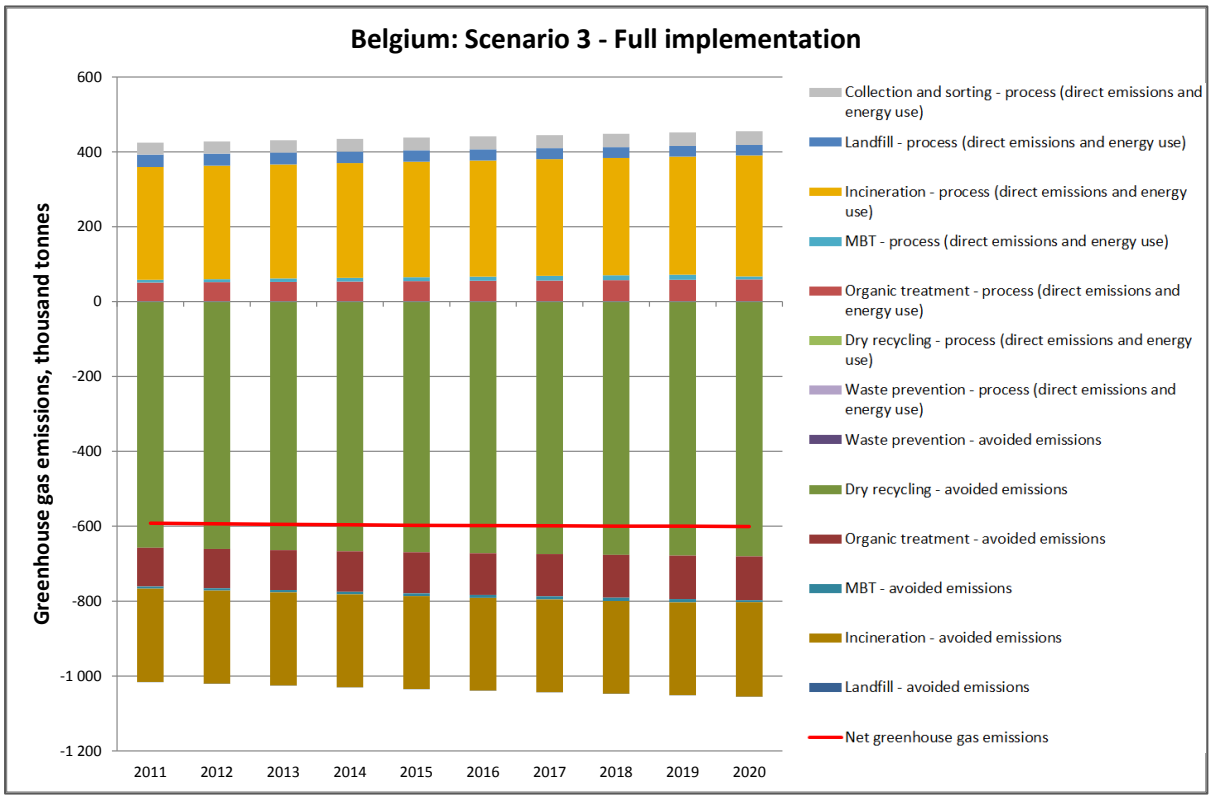
2.1.5 Environmental benefits of better municipal waste management

Figure 2. shows a scenario for greenhouse gas emissions from MSW management in Belgium. The scenario assumes a yearly growth rate of 0.8 % for MSW generation for the years 2011–2015 and 0.7 % for the years 2015–2020. The scenario also assumes that EU targets for municipal waste are fully met. The calculation of emissions is based on data and assumptions in the European Reference Model on Municipal Waste Generation and Management. The approach taken in the model is rooted in life-cycle thinking, in that it considers not only direct emissions, but also avoided emissions associated with the recycling of materials, and the generation of energy from waste management processes. The more detailed methodology is described in Gibbs *et al.* (2014b). The level of emissions depends on the amount of waste generated and the treatment it undergoes each year.

Figure 2. shows direct emissions, avoided emissions and net emissions resulting from the management of MSW. All the emissions (positive values) represent direct operating emissions for each waste management option. The phases of the waste management chain covered include waste prevention; material recycling; composting and anaerobic digestion; MBT and related technologies; collection and sorting; incineration and landfill.

For avoided emissions (negative values), the calculations integrate the benefits associated with energy recovery and material recycling of paper, glass, metals, plastics, textiles and wood, and bio-treatment of food and garden waste from MSW. (Gibbs *et al.*, 2014c)

Figure 2.7 Belgium, scenario for greenhouse gas emissions from municipal waste management, 2011–2020



Source: ETC/WMGE, calculation based on the European Reference Model on Waste

Note: Results presented in this figure should not be used for the compilation of greenhouse gas reporting for the Intergovernmental Panel on Climate Change (IPCC) national inventory report, or be compared with IPCC figures, as the methodology employed here relies on life-cycle thinking and, by definition, differs substantially from the IPCC methodology.

MBT means mechanical-biological treatment but the category also includes processes without a biological treatment step.

In countries with a low landfill share and high rate of recycling, waste treatment can have an overall positive impact on greenhouse gas emissions, reducing emissions as a whole. Belgium can be considered as one of these countries as net greenhouse gas emissions are negative and the projection up to 2020 indicates that the situation will persist.

2.2 Uncertainties in the reporting

Some uncertainties or differences in how countries report MSW recycling can result in different recycling levels. This applies, for example, to the following issues:

- the extent of packaging waste from households and similar packaging from other sources are included in or excluded from reports of the MSW recycling;
- the definition of municipal waste used by the country, such as the inclusion or exclusion of home composting;
- the methodology used to report the inputs and outputs of MBT and sorting plants.

Some issues concerning the reporting of regional and national datasets have already been addressed in this report. In Belgium, packaging waste is included in the reporting of MSW to Eurostat while home composting is not included (Statistics Belgium, 2014).

According to Statistics Belgium (2014), the reporting of MSW undergoing MBT is based on inputs in Flanders and Wallonia. In Flanders, the MBT inputs sent to incineration for final treatment are reported separately. While this waste treatment is relatively small in Belgium, it will be important to improve the reporting methodology for this type of pre-treatment technology. Waste undergoing sorting processes is also reported based on inputs – a combination of inputs and outputs in Wallonia when the final treatment is incineration. The amount of residual waste from sorting facilities treating source-separated waste is reportedly minimal. An exception is the PMD packaging waste (plastic bottles and flasks, metal packaging, drink cartons) in Flanders, where it first goes to a sorting facility and only the output from the packaging sorting facilities which goes to a recycling facility is considered as recycled waste. The sorting residues are incinerated.

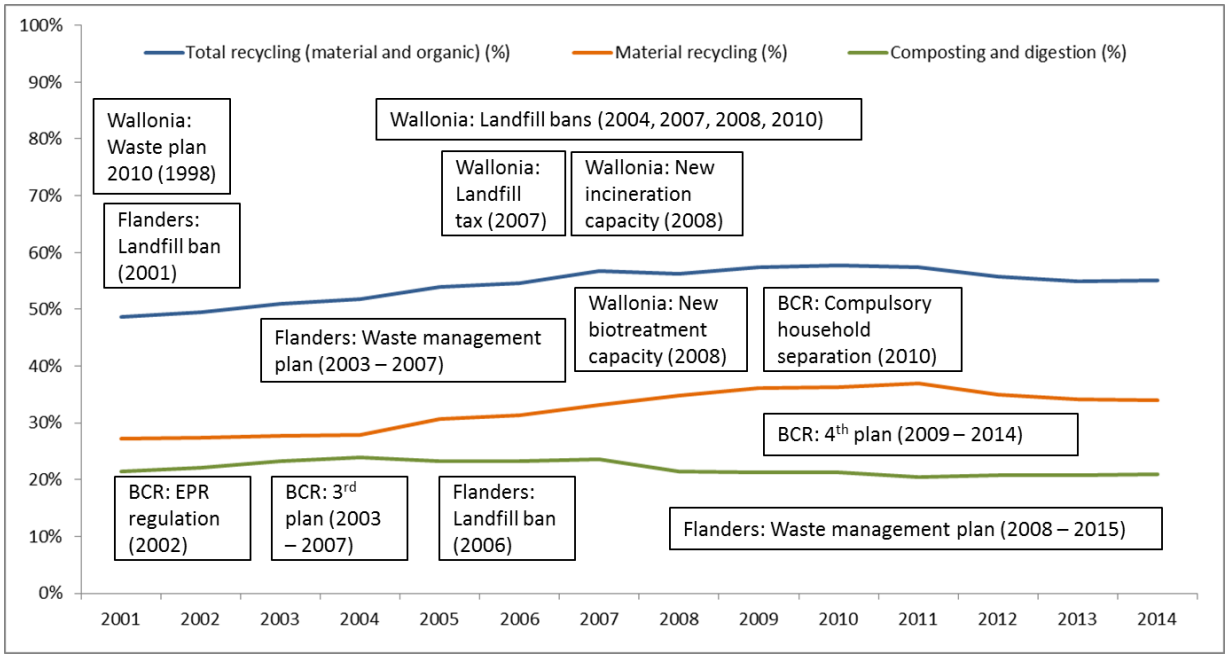
2.3 Important initiatives taken to improve municipal waste management

The most important initiatives taken in Belgium to improve MSW management between 2001 and 2013 include:

- regularly updated waste management plans;
- a strong emphasis on waste prevention;
- mandatory waste separation by householders with fines of up to EUR 625 for non-compliance since 2010 (BCR);
- high levels of separate collection – kerbside, bring banks and civic amenity sites – in Flanders and Wallonia;
- landfill bans and high landfill tax in Flanders and Wallonia;
- incineration ban on separately collected waste materials and not properly sorted waste in Flanders, and incineration tax in BCR, Flanders and Wallonia;
- extended producer responsibility;
- quality thresholds for separately collected waste in Flanders;
- colour coded collection bags with variable fees in BCR, Flanders and Wallonia;
- the systematic installation of civic amenity sites in Flanders and Wallonia;
- a focus on awareness campaigns for waste prevention and separation in BCR, Flanders and Wallonia); and
- waste prevention and recycling education in schools in BCR, Flanders and Wallonia.

Figure 2.8 plots Belgium's recycling performance and highlights key policy initiatives in each region.

Figure 2.8 Belgium, recycling of municipal waste, per cent, and important policy initiatives in the Brussels Capital Region, Flanders, and Wallonia, 2001–2014



Source: Eurostat, 2016.

In the BCR, the obligatory source separation, implemented in 2010, is expected to further increase the recycling rate from door-to-door separated collection. However, it will be difficult for it to reach rates similar to Flanders as there is a lack of space for the installation of bring banks and civic amenity sites.

In Flanders, the recycling is at a very high level. It should be noted that the landfill tax has been at a very high level (>EUR 50 per tonne) already since 1997 (ETC/SCP, 2012) and seems to have been a major driver of the high recycling rate.

The increase in organic waste recycling in Wallonia is primarily due to the amount of organic waste collected and recycled – composting and bio-methanisation – in the provinces of Liège and Luxembourg. The most significant factors that explain this are very large increases in the landfill tax – from EUR 25 per tonne in 2008 to EUR 65 per tonne in 2010 – in conjunction with a number of landfill restrictions introduced in 2004, 2007, 2008 and 2010. Furthermore, a ban on landfilling of unsorted domestic refuse came into force in 2008 and additional incineration and bio-treatment capacity has been installed.

2.4 Possible future trends

Belgium, as a country, has already met its recycling obligations according to the 2008 Waste Framework Directive and the 1999 Landfill Directive. When the three regions are considered separately, however, the BCR and Wallonia would have to increase efforts to raise the level of recycling if they want to reach a 50 % recycling rate by 2020. In Wallonia, the steep increase in landfill tax has driven the region to increase its recycling rates.

In the BCR, the recycling rate is below 30 %. Source separation of MSW was introduced in the early 1990s, but on a voluntary basis. But since 2010 separate collection has been mandatory, and could be a strong driver of behavioural change – a considerable increase in material recycling has already been achieved in recent years.

Flanders has introduced a maximum threshold for residual waste generation of 150 kilograms per person across the region and 180 kilograms in municipalities.

Waste management policy in Flanders now includes quality thresholds for the separately collected waste. This set of policy instruments should reduce the level of impurities in recyclable materials and support a further move towards a circular economy. It should be noted, however, that in practice, it seems rather difficult to monitor the quality of separated waste. It seems that continued efforts to educate householders to better separate their waste will be of major importance if these quality thresholds are to be achieved.

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