Country fact sheet

Municipal waste management

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Malta

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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

- An important parameter influencing municipal solid waste (MSW) generation in Malta is the considerable tourism sector, in which waste per person is higher than for Maltese residents.
- The overall treatment of MSW in Malta in 2014 is characterised by high landfilling rates, 80 %, and low recycling rates, 10.9 %.
- With total MSW recycling being this low in 2014 and a very unstable recycling performance in the previous years, Malta will need to speed up its efforts to fulfil the Waste Framework Directive's 2020 50 % recycling target.
- In 2014 the Maltese government launched a new national waste management plan (NWMP) for the period 2014–2020, in which a significant effort is planned for improving collection schemes and increasing treatment capacity.
- The Eco-Contribution Act (Act XII of 2004), promoting the producer responsibility principle and imposing a levy for waste deriving from producers' or importers' operations, is currently under government review.
- The small scale of the Maltese market is an inherent obstacle to recycling expansion, emphasising the need to access the wider European one. One of the principal issues lies in achieving economies of scale in recovery and recycling of waste compared to other Member States.

1 Introduction

1.1 Objective

Based on historical municipal solid waste (MSW) data for Malta and EU targets linked to MSW in the Waste Framework Directive (WFD), the Landfill Directive and the Packaging Directive, the present analysis includes:

- The historical MSW management performance based on a set of indicators;
- uncertainties that might explain differences in country performance, which may relate more to variations in reporting methodology than to management performance;
- indicators relating to the country's most important initiatives for improving MSW management;
- possible future trends.

2 Malta's municipal solid waste management performance

The first Waste Management Policy, issued in 1998, incorporated principles such as the sustainability principle and the waste hierarchy (waste minimisation, reuse, recovery, etc.). Nevertheless, the implementation of this policy has not met any of its goals and, for a number of reasons, it was largely compromised (Ginige *et al.*, 2010). During the pre-accession to the European Union (EU) period, it became clear that several issues concerning waste management in Malta needed to be resolved. This prompted the Maltese government to develop a Solid Waste Management Strategy in 2001 (Ministry for the Environment of Malta, 2001a). This new policy was based on the previous Waste Management Policy and provided a framework to improve the previous strategy and enable the government to incorporate regulatory changes required by the EU. At the same time, another document titled *Space for Waste – The Waste Management Subject Plan* was published a month later, providing details of how the policy presented in the previous document would be executed during 2001–2010 (Ministry for the Environment of Malta, 2001b).

Malta joined the EU in 2004 and managed to obtain special derogation periods for targets in the Landfill Directive, the Packaging Directive and the Directive on waste electrical and electronic equipment (WEEE) due to the fact that it was lagging behind other EU Member States in waste management practices. A thorough revision of the existing strategy was deemed necessary (Ginige *et al.*, 2010). Revision of the Solid Waste Management Strategy for the period 2006–2010 was considerably delayed, and was eventually published in 2009 in the form of two new consultation documents by the Ministry of Resources and Rural Affairs, expanding the timeframe to 2008–2012 (MRRA, 2009a, 2009b). The fact that the revision came so late was severely criticised by several non-governmental, political, environment organisations, but it enabled inclusion of the fundamental principles of the WFD (2008/98/EC) and set an appropriate policy context for Maltese waste management for the years to come (*Ginige et al.*, 2010).

The Malta Environment and Planning Authority (MEPA) is responsible for regulating environmental matters. The competent authority for drafting and implementing the national waste management plan (NWMP) is the Ministry for Sustainable Development, Environment and Climate Change (MSDEC). Local councils are responsible for MSW collection and management on their territory and they receive public funds allocated by government. A public company, WasteServ Malta Ltd., operates the

collection of various waste streams, mainly MSW. In addition, private companies operate in the sector. (Arcadis, 2014; BiPRO, 2014)

Villages and cities in Malta are administered by local councils as established by Chapter 363 of the Laws of Malta, the Local Councils Act (CAP 363). Under this, local councils are obliged, amongst other things, to provide for the collection and removal of all refuse from any public or private place. They are to do so in line with Regulation 12 of S.L. 504.37, the waste regulations on the duty of care. Penalties for those who fail to honour their obligations under the aforementioned regulations are laid in the said regulations. The Waste Management Plan (WMP) for the Maltese Islands 2014–2020, discusses the problems encountered by local councils in managing waste generated within their localities, as well as principles of ownership. In this context, the WMP outlines several measures that are to be looked into, particularly Section 3.11, with regard to compliance and enforcement. The latter section proposes several measures to promote compliance with existing obligations, thus aiding enforcement procedures, two of which are: "*5. confirm that Local Councils are to be the legal holders of waste collected from their communities*"; and "*6. introduce reporting requirements for Local Councils for waste managed within their locality*" (MEPA, 2015).

The generation of MSW in Malta increased continuously, reaching a peak in 2008, since when it has stabilised. An important parameter that affects MSW generation in Malta is the considerable tourism sector, which constitutes a large share of national gross domestic product (GDP; NSO, 2011). The 2003 National Statistics Office (NSO) Hotel Waste Survey indicates that, on average, a tourist generates almost double the waste generated by a Maltese resident. While a Maltese resident living in a household generates an average of 0.68 kilograms of waste daily, a tourist residing in an hotel produces an average 1.25 kilograms of waste each day (MRRA, 2009a). Consequently, the reduction in MSW can largely be directly linked with an observed fall in tourist arrivals and nights spent in hotels during 2009 and 2010, followed by a substantial increase for 2011–2014 (Eurostat, 2015c). Table 2.1 shows the development of tourism in Malta in nights spent by non-residents in hotels and similar establishments. While tourism activity increased after 2011, however, MSW generation further decreased.

Table 2.1 Malta, total number of nights spent by non-residents in hotels and similar establishments, 2003–2014

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
Million nights spent in Malta	7.3	7.4	7.2	7.0	7.7	7.6	6.5	7.2	7.4	7.5	8.2	8.4

Source: Eurostat, 2015c.

The projection on MSW generation for the period 2012–2020 presented in the NWMP is based on a yearly increase rate of 0.33 %. This estimate would result in an increase of around 20 000 tonnes from 2010 to 2020, totalling 267 500 tonnes per year in 2020 (BiPRO, 2014).

Waste shipment for treatment is crucial for Malta, especially for hazardous waste, as there are limited domestic treatment facilities. In addition, the domestic market for recycled materials is limited, calling for export of these materials. Malta also exports refuse-derived fuel produced in its waste treatment facilities (Arcadis, 2014).

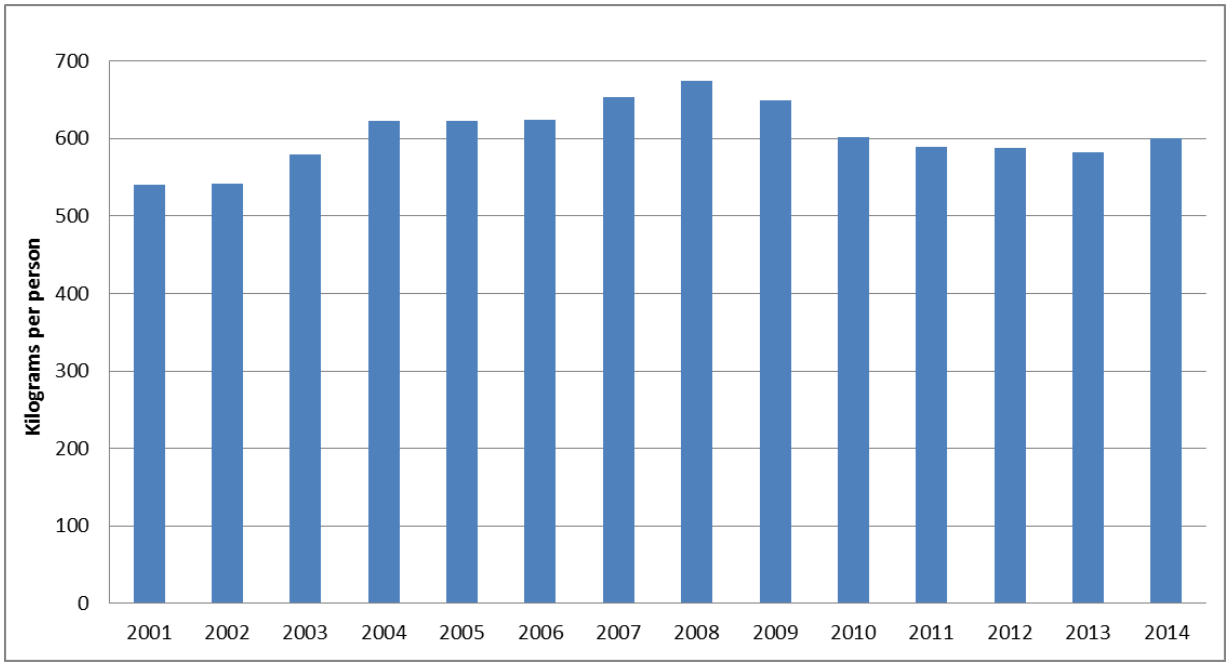
According to the reporting to Eurostat (2016), 91–100 % of the waste generated in 2001–2014 was treated. Discrepancies between MSW generated and treated relate to temporary storage of municipal waste (NSO, 2014) – in 2013, 246 251 tonnes of MSW were generated (MEPA, 2015). Collection coverage in Malta is 100 % of all households (Gibbs *et al.*, 2014a).

2.1 Municipal solid waste indicators

The following indicators illustrate the development of Maltese MSW management for 2001–2014. All percentages have been calculated as proportions of generated rather than managed waste. Relating the indicators to managed amounts would generally result in higher rates for all waste management paths.

Figure 2.0 shows the development of MSW generation per person in Malta 2001–2014. There was an increase throughout the years 2001–2008, with MSW generation peaking at 670 kilograms per person in 2008. In the following years MSW generation declined, dropping to 600 kilograms per person in 2014. The fall can be attributed to a rise in landfill charges (NSO, 2014). Another possible explanation for the decrease might be the economic recession generally, and specifically the decline in the tourism sector. The recovery of tourism up to 2013, however, did not bring about an increase in MSW generation, which is a positive sign.

Figure 2.0 Malta, municipal solid waste generation per person, 2001–2014



Source: Eurostat, 2016.

Malta is in a group of EU countries that still have high landfill rates. The share of MSW sent to landfill in 2014 was 80 % of the total generated. The peak in MSW landfill occurred in 2008. The high amounts of waste sent to landfill in 2007–2009 are partly due to the diversion of waste from the Sant'Antnin recycling plant to landfill, as the plant was undergoing refurbishment (NSO, 2014). A modest development in recycling has been observed but very low rates still pertain, while there is almost no incineration of MSW.

2.1.1 The recycling of municipal solid waste, 2001–2014

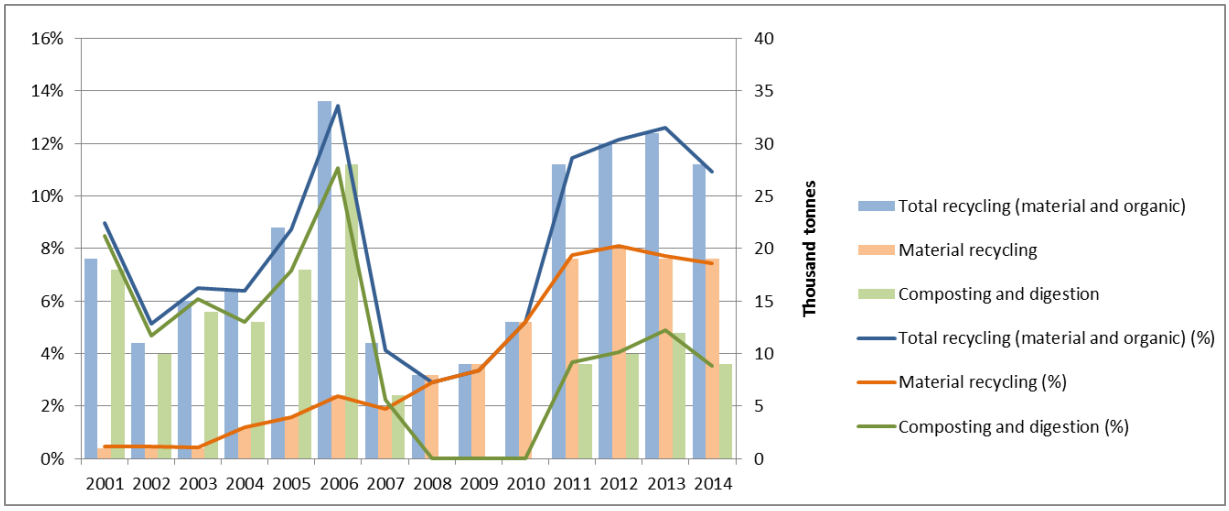
Figure 2.1 shows the development of total, material and organic (compost and other biological treatment) MSW recycling in Malta. Recycling has been subject to considerable fluctuations over the years but the proportion of MSW recycled has remained below 15 %.

Up until 2006, the largest share of recycling in Malta was organic recycling, which was already quite high in 2001, at 8.5 % of the MSW generated. In 2002, organic recycling dropped significantly but soon picked up again, reaching 11 % in 2006. A sharp decrease in 2007 was due to the composting

facility undergoing refurbishment, which continued throughout 2008 and 2009. In fact, the facility was shut down in the years 2008–2010, receiving no organic MSW at all (NSO, 2014). In 2011, there was a moderate recovery of organic recycling, of around 9 200 tonnes, 3.7 % of MSW.

Material recycling was very low before 2004, at about 1 000 tonnes, but then grew steadily until 2012, reaching 8 % of MSW. In 2014 material recycling and organic recycling stood at 7.4 % and 3.5 %, respectively. The highest total recycling rate achieved in Malta was in 2006, 13 %, mainly due to organic recycling. Looking at the situation in 2014, organic recycling has been much higher in the past, which means that there is already a basis for organic recycling. Overall, there is considerable room for improvement in both material and organic recycling. Currently the introduction of a third bag for the separate collection of organic waste and the collection of waste from commercial establishments are part of new measures proposed by MSDEC. A pilot study is currently ongoing in this regard (MEPA, 2015).

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



Source: Eurostat, 2016.

The EU's 2008 Waste Framework Directive (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 to calculate compliance with the target[1]. Malta has chosen calculation method 1 (Gibbs *et al.*, 2014), and has reported a recycling rate of 23 % according to this methodology. The recycling rates shown in this paper correspond to method 4, the only method for which time series data exist. 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 option of time derogations for some countries, including Malta (EC, 2015).

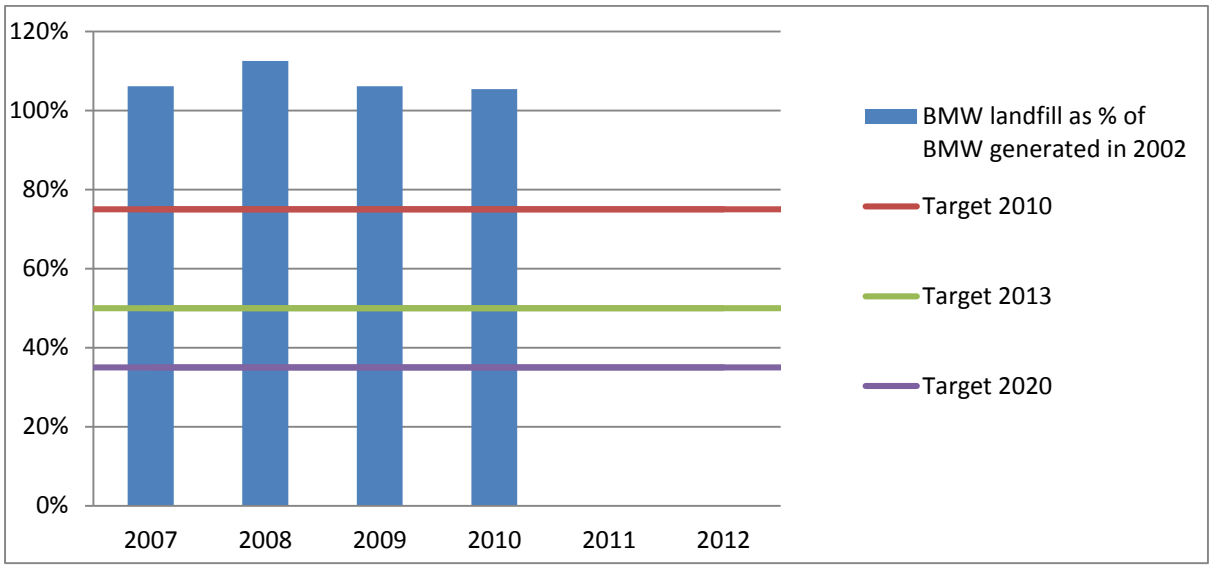
[1] Commission Decision 2011/753/EU allows countries to choose between four different calculation methods to report compliance with this target. Member States have the option of considering four alternative waste streams and fractions:

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).

2.1.2 Landfill of biodegradable municipal waste

According to the EU Landfill Directive, Member States have to reduce the amount of biodegradable municipal waste (BMW) sent to landfill by a specific percentage by 2006, 2009 and 2016. Malta has been given a four-year derogation period, however, and thus has to meet the targets by 2010, 2013 and 2020. The targets for Malta are set relative to the amount of BMW generated in 2002, when Malta generated 141 359 tonnes. Malta has reported BMW landfill amounts to the European Commission for the years 2007, 2008, 2009 and 2010 (EC, 2014).

Figure 2.2 Landfill of biodegradable municipal waste in Malta, 2007–2010



Source: MEPA, 2015 (baseline data for 2002); EC, 2014 (data for 2007-2010.
Notes: the target dates take into account Malta's 4-year derogation period. Malta did not report in 2011–2012.

Figure 2.2 shows that from 2007 to 2010 the amount of BMW sent to landfill exceeded the amount in the reference year 2002, showing an increase instead of a decrease as required by the EU Landfill Directive's targets. The main reason for this increase was that BMW could not be diverted away from landfill during 2007–2009 due to the composting facility being closed for refurbishment (NSO, 2014). Nevertheless, BMW levels going to landfill remain high and, according to reported data, the 2010 target of 75 % was not met. Consequently, a very large effort is needed if Malta is to fulfil the 50 % and 35 % requirements by 2013 and 2020.

In the last quarter of 2015, Malta introduced a pilot project for the separate collection of biodegradable waste in five different localities. It is envisaged that by the end of 2016, the separate collection of biodegradable waste will be introduced throughout the country. In the coming years, this should help Malta to reduce landfill of biodegradable waste. (MEPA, 2015)

2.1.3 Regional differences in municipal solid waste recycling, 2001–2013

There are no regional data available for Malta on recycling of MSW in Eurostat's database.

2.1.4 Recycling and landfill taxes

There is no landfill tax in Malta and the management of MSW is covered by a general tax (MRRA, 2009a). Door-to-door collection of recyclables is funded by authorised recovery schemes – producer responsibility organisations – through an agreement between the scheme and the local councils (Gibbs *et al.*, 2014a).

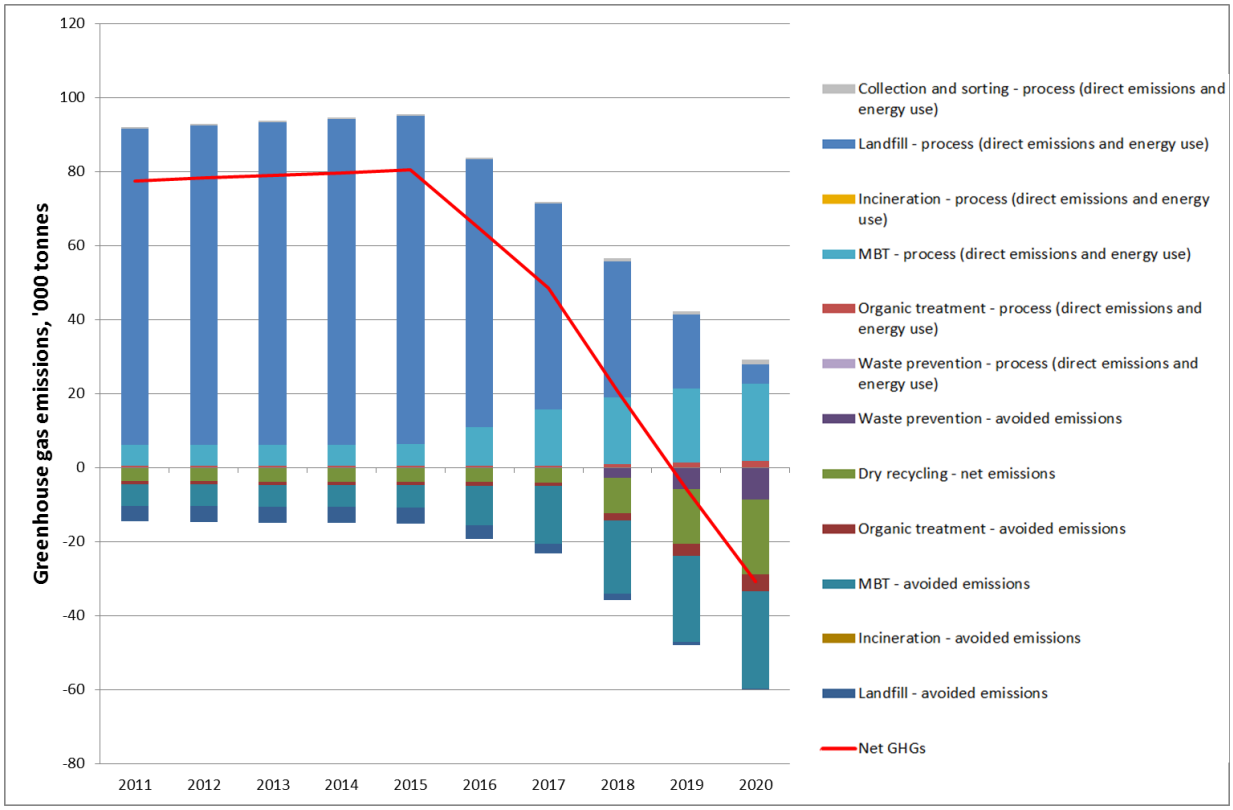
2.1.5 Environmental benefits of better municipal solid waste management

Figure 2.3 shows a scenario for the development of greenhouse gas emissions from MSW management in Malta. The scenario assumes a 0.74 % annual increase in municipal waste generation in Malta from 2011 onwards, and that EU municipal waste legislation is fully implemented. The calculation of emissions is based on data and assumptions contained 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 or 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. The methodology is very different from the reporting pursuant to the greenhouse gas Monitoring Mechanism Regulation and differs substantially from the Intergovernmental Panel on Climate Change (IPCC) methodology.

Figure 2.3 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; mechanical biological treatment and related technologies; collection and sorting; and incineration and landfill. The graph is based on the assumption that existing legislative targets are fully met.

For the 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 collected MSW. The modelled scenario assumes full implementation of existing EU legislation on waste management that all Member States are obliged to implement (Gibbs *et al.*, 2014c).

Figure 2.3 Malta, scenario for greenhouse gas emissions from municipal solid 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.

Based on the modelled scenario with full policy implementation, net greenhouse gas emissions from the management of municipal waste in Malta are first expected to increase in 2011–2015 and then to decrease in 2016–2020, reaching a level below zero by 2020. The reduction will mainly be due to increased mechanical biological treatment (MBT) and dry recycling of MSW, which results in more and more avoided greenhouse gas emissions as well as decreasing emissions from landfills. In the first modelled years of the scenario, the direct greenhouse gas emissions related to municipal waste management are linked almost exclusively to landfill and the benefits of recycling are low.

Greenhouse gas emissions from landfill are caused by the breakdown of organic wastes accumulated over past decades. In the model, which calculates landfill impacts over a 100-year period, the longer-term emissions from any given waste are attributed to the year in which that waste is deposited (Gibbs *et al.*, 2014b). Therefore, the positive effect of diverting BMW from landfill shows in the figures as an immediate reduction in greenhouse gas emissions from landfill. According to the model, the significance of MBT will increase in 2016 for both direct and avoided emissions.

2.2 Uncertainties in the reporting

Some uncertainties or differences in how countries report recycling of MSW 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 included or not included in the MSW recycling reported;

- 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.

Malta's reported MSW includes packaging waste from households as well as recyclables sorted in Maltese sorting plants that are subsequently exported (NSO, 2014).

The recyclables are sorted in Malta through a manual-mechanical process in material recovery facilities. Until 2010 Malta reported inputs of the sorting process as recycling, but since 2010 the outputs from sorting have been reported as recycled MSW (Gibbs *et al.*, 2014a).

Moreover, the data for 1995–2009 that Malta reported to Eurostat about municipal waste treatment has been recently revised and are based on the outputs from pre-treatment. As a result, all the data for 1995–2013 are based on the outputs from pre-treatment. Data for waste treatment in private facilities are included for the years from 2011 onwards. Prior to 2011, data about waste exports were used to fill in the data gap resulting from the lack of data from private facilities. Discrepancies between MSW generated and treated relate to temporary storage of municipal waste that, over the past few years, has ranged from 3.8 % to 7.2 % of waste generation (NSO, 2014).

2.3 Important initiatives taken to improve municipal solid waste management

The pre-accession Maltese waste management system was largely problematic and failed to address vital issues of contemporary practice (Ginige *et al.*, 2010). Several fundamental changes needed to take place for the re-organisation of the whole waste management sector in order to meet EU requirements. The 2001 Solid Waste Management Strategy laid the foundation for major institutional and organisational change by introducing specialised authorities for the regulation, monitoring and facilitation of waste management activities in the country.

In 2002, the Malta Environment and Planning Authority (MEPA) was established, with major roles including the issuing of licences or permits for waste management facilities and activities; monitoring and inspection to ensure that licence or permit conditions are being adhered to and enforcement action being taken if they are not (Ministry for the Environment of Malta, 2001a). Moreover, in 2002, WasteServ Malta Ltd, an autonomous waste management services agency, was established. The company is responsible for organising, managing and operating integrated systems for waste management including integrated systems for minimisation, collection, transport, export and disposal of solid and hazardous waste (WasteServ, 2012).

In 2004, the Maltese government introduced the Eco-Contribution Act (Act XII of 2004) to implement extended producer responsibility (EPR) systems. The act imposes a levy on products that generate end-of-life products or waste, with the ultimate aim of ensuring better disposal/reuse/recycling management. The levy has to be paid by producers or importers of products falling within its scope and its amount varies depending on the product. (BiPRO, 2014; MEPA, 2012)

Extended producer responsibility systems have been set up for packaging, WEEE, batteries and accumulators and end-of-life vehicles, but they are yet to be fully implemented. Packaging producers have to sign up for compliance schemes or take care of their obligations individually. Two authorised compliance schemes are in place for packaging waste. In addition to this, packaging producers have to pay the eco-contribution levy, causing double obligation. Therefore, eco-contribution legislation is currently being reviewed by the government (BiPRO, 2014).

In the 2015 budget, the government proposed the elimination of the eco-contribution regime on electronic and white goods classified as electrical and electronic equipment. This has been implemented through amendments to national legislation, namely:

- L.N. 232 of 2015, the Waste Management (Electrical and Electronic Equipment) (Amendment) Regulations, amending Subsidiary Legislation 504.75 – the Waste Management (Electrical and Electronic Equipment) Regulations;
- L.N. 260 of 2015, the Eco-Contribution Act (Amendment of First Schedule) Regulations, amending the first schedule of Chapter 473 of the laws of Malta, the Eco-Contribution Act.

Further changes are envisaged to the Eco-Contribution regime as announced by government in the 2016 Budget Speech. Such measures would have to be implemented mainly through further amendments to the Eco-Contribution Act and the Producer Responsibility Regulations. (MEPA, 2015)

In 2003, in association with local councils, WasteServ established numerous waste collection points where the public could deposit clean, source-separated recyclable materials, in an effort to facilitate recycling and boost the collection of materials for recycling (MRRA, 2009a). Gradually, WasteServ handed over responsibility for the collection and maintenance of the collection points to local councils. In order to continue to provide recycling services to the public, local councils enrolled in existing producer responsibility schemes and passed the operation and maintenance costs of the waste collection points to them (WasteServ, 2012). In 2014 there were 829 such sites serving households, corresponding to one site for every 180 households (Gibbs *et al.*, 2014a).

Additionally, in 2008 recycling efforts were enhanced by means of the Recycle Tuesdays initiative through which the collection of plastic, paper, cardboard and metal for recycling became available on a door-to-door basis, further reducing the amount of household waste being sent to landfill (WasteServ, 2012). In the meantime, five civic amenity sites were introduced between 2007 and 2009 for the separate collection of bulky waste, WEEE, waste from do-it-yourself activities, construction and demolition waste, garden waste and hazardous household waste (Gibbs *et al.*, 2014a). A sixth civic amenity site was opened in 2015 (MEPA, 2015).

In 2006, two new state-of-the-art engineered landfill sites replaced all the previously uncontrolled dumping sites. Another important milestone was the development of the Sant'Antnin Waste Treatment Plant, which began operation in 2008 and was inaugurated in November 2010 (WasteServ, 2012). The Sant'Antnin MBT plant, with a capacity of 35 000 tonnes a year, treats MSW and employs mechanical treatment, anaerobic digestion and composting, as well as combined heat and power production. Sorting and baling of recyclables from kerbside collection, collection points and civic amenity sites takes place on the same site in a material recovery facility, which has a capacity of 36 000 tonnes a year (BiPRO, 2014).

Malta's first NWMP for 2008–2012 was finalised in 2009. In 2010, the revised Solid Waste Management Strategy came into force, promoting the adoption of nine policy objectives for improving waste management performance. Policy objectives include the urging of waste minimisation, setting a target of a 1.5 % reduction in waste generation a year, the promotion of producer responsibility, and calling for more recycling and separation of biodegradable waste. In order to achieve this, the government has called for significant investment to facilitate the development of new specialised waste processing facilities (Arcadis, 2014; MRRA, 2010).

In 2014 the Maltese government launched a new NWMP for the period 2014–2020 (*Waste Management Plan for the Maltese Islands: A resource management approach 2014–2020*). The plan merges the Waste Strategy, the Waste Management Plan and the Waste Prevention Plan into one uniform plan (Arcadis, 2014; MSDEC, 2014).

The plan identifies the key challenges of the Maltese waste management system as breaking the link between economic growth and waste generation, moving up the waste hierarchy and moving towards sustainable waste management through waste prevention and increased recycling and recovery. The

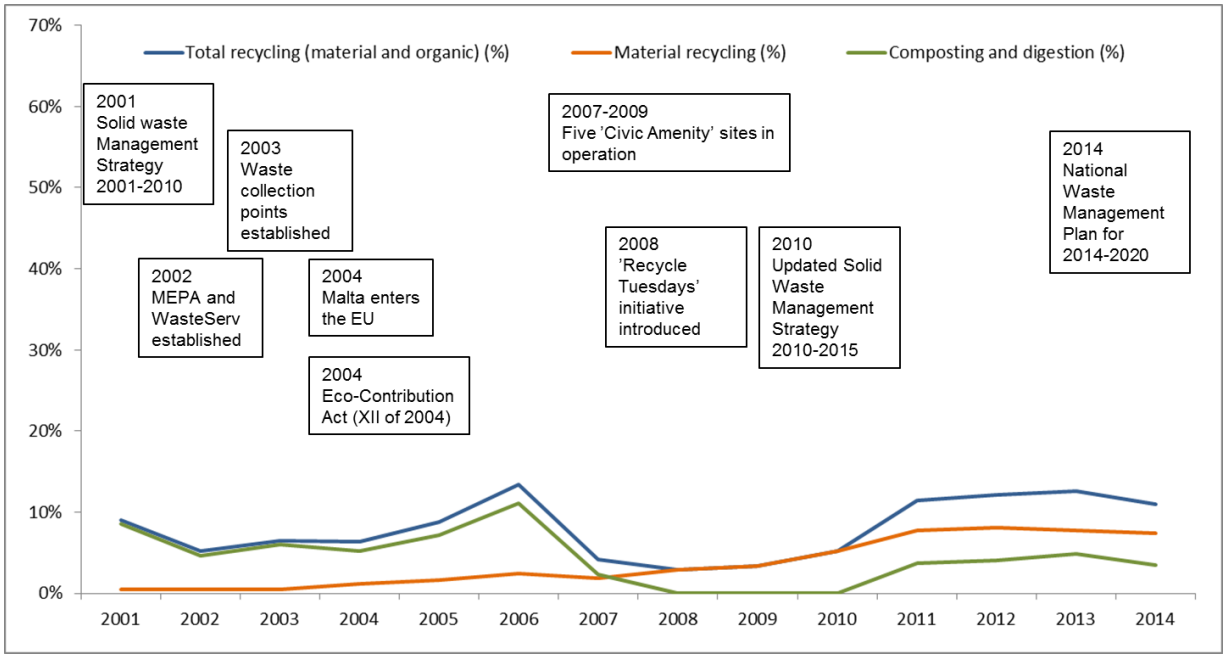
plan sets out the following targets for different waste streams (MSDEC, 2014), in line with the targets set in EU waste directives:

- a 50 % recycling rate for paper, plastics, metal and glass waste from households by 2020;
- diversion of biodegradable municipal waste from landfill so that no more than 35 % (based on 2002 levels) of BMW will be sent to landfill by 2020;
- recovery of 70 % of construction and demolition waste by 2020;
- collection of 65 % of the average weight of electrical and electronic equipment (EEE) placed on the national market by 2021;
- for EEE placed on the national market, achieve, depending on the application, 55 %, 70 %, 80 % and 85 % reuse and recycling and 75 %, 80 % and 85 % recovery by 2018;
- collection of 45 % of waste portable batteries;
- reuse and recover 95 % of average weight per vehicle per year by 2014.

In order to comply with the set targets, a significant effort is planned for the improvement of collection schemes. Dry recyclables are to be collected once or twice a week, whereas MSW collection will be reduced to three times a week and then once a week; this issue is currently being analysed through a pilot project. There are plans to introduce kerbside collection of bio-waste three times a week and to this effect a kerbside collection twice a week was introduced in five localities in 2015 to pilot this reform. Collection of commercial and industrial waste is also going to be focused on to consider reforms. The sixth civic amenity site was set up in 2015 while a new waste transfer station for sorting, processing, storing and transferring waste and recyclables is planned. The capacity of the existing MBT plant is 66 000 tonnes per year and another MBT plant, based on anaerobic digestion, for MSW and animal manure is being developed for the north of Malta. Further treatment is planned for refuse-derived fuel produced in MBT plants in order to improve energy recovery. An important new feature to be introduced under the NWMP is a system for charging waste management services according to the pay-as-you-throw principle. Options for the co-collection of industrial waste with household waste against an amount-based fee will be explored. (Arcadis, 2014)

Since 2012, Malta has developed numerous educational campaigns focused principally on the reduction and minimisation of waste, reuse and enhanced education regarding waste management (MEPA, 2015).

Figure 2.4 Malta, recycling of municipal solid waste and important policy initiatives, 2001–2014



Source: Eurostat, 2016.

2.4 Possible future trends

Malta is eligible to ask for a special derogation period under Article 11 (3) of the WFD, under which it can intensify its efforts for increased recycling. Increased recycling capacity will be needed and the Maltese government is already working towards this by planning the expansion of facilities, increasingly involving the private sector in the provision and management of facilities for recycling and improving collection schemes for recyclables (Arcadis, 2014; MRRA, 2010). The possible introduction of the pay-as-you-throw principle, suggested in the NWMP, would be a tool for improving separate collection as well as for waste prevention.

An inherent obstacle to recycling expansion is the small scale of the Maltese market and a lack of industries with demand for recycled materials, which makes recycling expensive. Local production does not make use of recycled materials, so that recycled quantities need to be exported (MRRA, 2009a). For this reason, if better access to the European recycled raw materials market could be established, recyclers in Malta would be eager to further increase domestic recycling and consequently push the recycling rates in Malta upwards.

At present, the government is carrying out the necessary studies to establish the feasibility of constructing a waste-to-energy plant for MSW or whether it would be better to export waste to incinerators abroad. Once these studies are concluded, a decision will be taken on the way forward. (MEPA, 2015)

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