

SWAL-CITIZENS-TOWN

Sharing working
algorithms for
urban/rural waste
collection
Project number
101089517

First part

First part



Funded by
the European Union



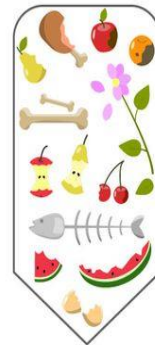
Project summary:

The circular economy is a model of production and consumption that minimizes waste and encourages its reuse as a resource. As early as/Back in 2005, the EU adopted a strategy to prevent the generation and recycling of waste, which also sets the long-term goal of making the EU a "recycling society". The four new waste directives in the recently adopted Circular Economy Package introduce new waste management objectives in terms of waste prevention, reuse, recycling and landfill. The hierarchical ranking of waste activities promotes, above all, the prevention of waste generation, followed by reuse, recycling and recovery, and the disposal (disposal, incineration) of waste is the last in this ranking and the most undesirable option. The main goal of the project proposal is the cooperation and intensive exchange of good practices in the process of waste management. Research and analysis of the policies implemented by the municipalities and the city governments in the field of garbage collection and processing as a basis for achieving the goals of the green economy.



Partners:







Strategies and policies for garbage collection and processing of waste in Bulgaria



The state policy on waste management is a modern concept of resource efficiency aimed at preventing the generation of waste, promoting reuse and recovery through recycling, regeneration or other process of extracting secondary raw materials, disposal and safe storage of waste, increasing responsibility of producers, stimulation of investments in the sector, within the framework of available financial instruments.

The **Ministry of Environment and Water** in Bulgaria determines the state policy on waste management. It represents a modern concept of resource efficiency aimed at preventing the generation of waste, promoting reuse and recovery through recycling, regeneration or other process of extracting secondary raw materials, disposal and safe storage of waste, increasing the responsibility of producers, stimulating investments in the sector, within the framework of available financial instruments.



Strategies and policies for garbage collection and processing of waste in Bulgaria



The waste management policy in Bulgaria is carried out by the Ministry of Environment and Water, assisted by the Waste Management and Soil Protection Directorate, and Regional environment and water inspections. It is in accordance with the legislation of the European Community and national legislation - Law on Environmental Protection, Law on waste management, regulations, national planning and strategic documents: **National Waste Management Plan 2021-2028, and the Circular Economy Transition Strategy 2022-2027.**



Strategies and policies for garbage collection and processing of waste in Bulgaria



Until 2020, this policy was also developed on the basis of the National Strategic Plan for the Management of Sludge from Urban Wastewater Treatment Plants 2014-2020, the National Strategic Plan for the Management of Construction and Demolition Waste 2011-2020 and the National a strategic plan for a step-by-step reduction in the amount of biodegradable waste destined for landfill.



Strategies and policies for garbage collection and processing of waste in Bulgaria



In the context of the European Commission's policy on waste and the development of a circular economy, the linear economic model of the type "take, produce and dispose" no longer corresponds to the needs of modern society and the limited nature of natural resources. According to the adopted waste hierarchy, priority is given to waste prevention, followed by preparation for re-use, recycling, recovery and finally disposal as the least desirable option.

In this sense, the state policy on waste management focuses on the integration of new, ecologically and economically sustainable models, where everything that can be recovered and recycled to turn into energy is separated from household waste, in raw materials for industry, in fertilizer for plants, and in the newly built regional landfills to deposit minimal amounts of waste.



Strategies and policies for garbage collection and processing of waste in Bulgaria



By undertaking legislative and non-legislative initiatives, the policies of the Ministry are aligned with European level policies and the main aspects of the national interest to achieve 65% recycling of household waste by 2030, 75% recycling of packaging waste by 2030 and 10% maximum disposal by 2030.

The main strategic documents in Bulgaria are:

- National Waste Management Plan 2021-2028;
- Strategy for the transition to a circular economy 2021-2027;
- Implementation action plan for the strategy for the transition to a circular economy 2022-2027.



Strategies and policies for garbage collection and processing of waste in Bulgaria



3 laws at country level:

- Waste Management Act;
- Environmental Protection law;
- Act on the ratification of the Basel Convention on the Control of Transboundary Transportation of Hazardous Wastes and their Treatment;

Regulations

21 in number

- As an example: the latest regulation from 2023, namely Regulation No. H-4_of June 2, 2023 on the conditions and requirements that must be met by waste storage or treatment sites, for the placement of waste treatment facilities and for transporting production and hazardous waste.



Strategies and policies for garbage collection and processing of waste in Bulgaria

Others:

- Ordinance on separate collection of bio-waste and treatment of biodegradable waste
- Ordinance No. 1 of 09.02.2015 on the requirements for waste collection and treatment activities on the territory of medical and health facilities.

Acts

- **one:**

ACT No. 209 of the Council of Ministers of August 20, 2009 to provide funding for the construction of regional systems for household waste management, regional facilities for preliminary treatment of household waste and for the closure of municipal landfills for household waste.



Strategies and policies for garbage collection and processing of waste in Bulgaria



Municipal policy

The mayor of a municipality develops and implements a waste management program for the territory of the respective municipality. The program is an integral part of the municipal environmental program.

The program is developed and adopted for a period that should coincide with the period of operation of the National Waste Management Plan.



Strategies and policies for garbage collection and processing of waste in Bulgaria



The program includes the necessary measures to fulfill the duties of the mayor of a municipality and the requirements. The mayors of two or more municipalities included in a region may develop a common program for waste management, in case the duties, responsibilities and measures affecting individual municipalities are clearly distinguished in the program. The waste management program is published on the website of the respective municipality in order to ensure public access.





Strategies and policies for garbage collection and processing of waste in Malta



The Long Term Waste Management Plan for Malta 2021-2030, published by the Ministry for the Environment, Climate Change and Planning (MECP), recognises the need for Malta to move away from the consume and throw mentality and strengthen the transition towards resource efficient circular economy. The plan identifies the following strategic objectives:

- ✓ Maximise the resource value in waste through different management options;
- ✓ Innovate by designing waste prevention initiatives to lower Malta's per capita generation rate;
- ✓ Reform the collection system to increase economies of scale, harmonise collection practices and modernise the collection fleet;



Strategies and policies for garbage collection and processing of waste in Malta



Build the necessary waste management facilities to treat recyclable, organic and residual waste to achieve Malta's targets;

- ✓ Study the feasibility of an enhanced producer responsibility framework to complement Malta's transition to a circular economy and reflect further on the true cost of waste management; and
- ✓ Promote further the involvement of the private sector in waste management. These strategic objectives will be achieved through the implementation of a number of targeted measures, that cater for waste prevention and improvements to its collection and treatment (including infrastructure), Extended Producer Responsibility (EPR), commercial waste, monitoring and compliance together with data management.



Strategies and policies for garbage collection and processing of waste in Malta



These measures have been categorised based on the timeframe during which they will be implemented, that is in the short term, medium term or the long term, spanning between 2021 and 2030.

Background: Two Legal Notices (LNs) with the aim of introducing mandatory separation at source requirements within national legislation, namely:

1. The Waste (Amendment) Regulations, and
2. The Abandonment, Dumping and Disposal of Waste in Streets and Public Places of Areas (Amendment) Regulations.





Strategies and policies for garbage collection and processing of waste in Malta



The first LN amends the Waste Regulations (S.L. 549.63) and introduces a new regulation 12A with a duty upon every person to separate the following waste streams at source prior to their separate collection:

- paper;
- metal;
- plastic;
- glass;
- bio-waste; and
- any other waste stream as determined by the Minister.

This applies to every person – including households, businesses, government buildings, etc., and regardless of whether waste is generated at home, at work, or in public places.



Strategies and policies for garbage collection and processing of waste in Malta



Co-mingled collection of certain waste streams may be allowable if carried out in line with the provisions of Schedule 3 of S.L. 549.40 – at present, this refers to the co-mingled door-to-door collection of recyclable paper, plastic and metal in the grey/green bags.

As regards waste generated in public places (at beaches, walking in the streets, etc), this new obligation will apply where relevant bins for the separate collection are so available to the public.

The second Legal Notice amends the Abandonment, Dumping and Disposal of Waste in Streets and Public Places of Areas Regulations (S.L. 549.40) so as to introduce the obligation to separate waste as a new Regulation 4B, by cross-referencing to the obligation within regulation 12A of the Waste Regulations.

The following applicable fines (*ammenda*) for failing to separate waste correctly are being proposed:



Strategies and policies for garbage collection and processing of waste in Malta



For waste from commercial establishments:

- 1st contravention: reprimand and admonition (warning);
- 2nd contravention: €75
- Subsequent contraventions: €150

For any other instance/establishment (including households):

- 1st contravention: reprimand and admonition (warning);
- 2nd contravention: €25
- Subsequent contraventions: €50

Notably, the enforcement of this obligation will be carried out gradually by the respective authorities (ERA, LESA & Police) in a phased approach, so as to allow for a period of adaptation. To ensure transparency and legal certainty, the enforcement plan shall be published in the Government Gazette by the Minister responsible for the environment.



Strategies and policies for garbage collection and processing of waste in Malta



Amendments to the following regulations within S.L. 549.40 are also being proposed in relation to this requirement:

- Regulation 8(1): to ensure that every hawker or street seller operating in a public place, is to have such number of bins as approved by Government during its operating times, to allow for source separation of waste generated;
- Schedule 3: to include a cut-off date (i.e. one year from publication of the Legal Notice) by which all mixed waste placed for door-to-door collection must be in transparent bags, as opposed to current black bags.



Strategies and policies for garbage collection and processing of waste in Malta



Other ancillary amendments to S.L. 549.40 being proposed through this Legal Notice include:

- Amendment to regulation 10(4) to allow for a minimum fine of €400 to be applicable in certain instances relating to unlawful dumping of waste where the amount of waste is considered minimal, as opposed to current minimum fine of €3,000 for dumping of any waste not listed in paragraphs (a), (b) and (c) of regulation 10(4); and
- Amendment to regulation 12(1) to make the person dumping waste within certain sites of historical or environmental importance liable of an additional fine (multa).

Single-use plastic products (SUPs) are products that are made wholly or partly from plastic and that are not conceived, designed or placed on the market to accomplish, within its life span, multiple trips or rotations by being returned to a producer for refill or re-used for the same purpose for which it was conceived.



Strategies and policies for garbage collection and processing of waste in Malta

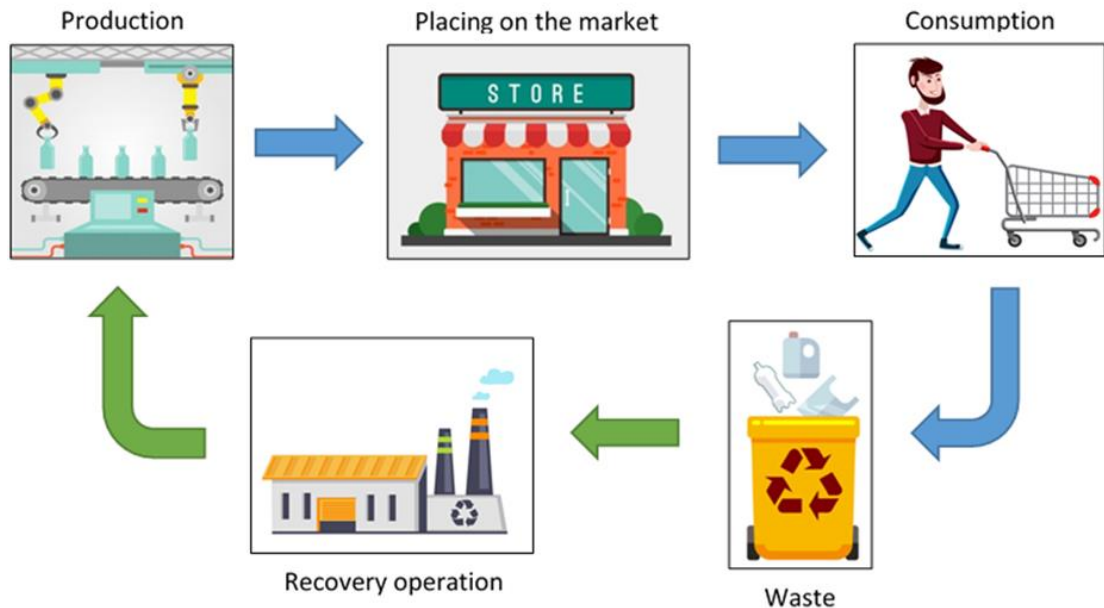


These products are present in many aspects of our daily activities and they constitute an important element of our economy. However, since SUPs are intended to be used only once, they respond to the principles of the take-make-waste model, which goes against the concept of circular economy. Furthermore, they tend to be littered and have low rates of recovery and recycling when compared with other recyclables (i.e. paper, metals and glass).

The Single-Use Plastic Products Strategy for Malta 2021-2030 – Rethink Plastic – contains 24 measures that aim at reducing the consumption of certain single use plastic products, and increasing the quality and quantities of plastic waste collected for recycling. The implementation of these measures will further assist Malta to move towards a more circular model, in line with the European Union's and national principles, as well as to protect our environment and human health from plastic pollution.



Strategies and policies for garbage collection and processing of waste in Malta



Separate collection of the organic waste from households was introduced in 2015 as a pilot project in nine localities in Malta and the entire region of Gozo. It has since been introduced on a national scale since the last quarter of 2018. The frequency of kerbside collection per locality is set out in Schedule 3 of S.L.549.40 – the Abandonment, Dumping and Disposal of Waste in Streets and Public Places or Areas Regulations



Strategies and policies for garbage collection and processing of waste in Malta



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Strategies and policies for garbage collection and processing of waste in Poland



Basic legal acts of the Commission on municipal waste in Poland:

- The Act of 13 September 1996 on Maintaining Cleanliness and Order in Municipalities (Journal of Laws of 2022, item 2519)

<https://isap.sejm.gov.pl/isap.nsf/download.xsp/WDU19961320622/U/D19960622Lj.pdf>

- Regulation of the Minister of Climate and Environment of 10 May 2021 on the method of selective collection of selected waste fractions (Journal of Laws of 2021, item 906)

<https://dziennikustaw.gov.pl/D2021000090601.pdf>

- Act of 14 December 2012 on waste (Journal of Laws of 2022, items 699, 1250, 1726, 2127, 2722, of 2023, item 295)

<https://isap.sejm.gov.pl/isap.nsf/download.xsp/WDU20130000021/U/D20130021Lj.pdf>



**National waste management plan established by a
resolution of the Council of Ministers**

<https://bip.mos.gov.pl/strategie-plany-programy/krajowy-plan-gospodarki-odpadami/>

The basic acts of local law regulating waste management in a given commune are resolutions of the Commune Council, such as:

- resolution on the establishment of regulations for maintaining cleanliness and order in a given commune;
- resolution on specifying the detailed method and scope of providing services in the field of collecting municipal waste from property owners and managing this waste in exchange for a fee for municipal waste management;
- resolution on the choice of the method of determining the municipal waste management fee and the rate of this fee;
- resolution on the determination of the template of the declaration on the amount of the municipal waste management fee.



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- resolution on the determination of the template of the declaration on the amount of the municipal waste management fee.



The definition of municipal waste and the waste producer is specified in the Waste Act.

Municipal waste is understood as waste generated in households and waste from other waste producers, which due to its nature and composition is similar to household waste, in particular non-segregated (mixed) municipal waste and selectively collected waste:

- from households, including paper and cardboard, glass, metals, plastics, bio-waste, wood, textiles, packaging, waste electrical and electronic equipment, used batteries and accumulators and bulky waste, including mattresses and furniture, and
- from sources other than households, if the waste is similar in nature and composition to household waste - however, municipal waste does not include waste from production, agriculture, forestry, fishing, septic tanks, sewage system and wastewater treatment plants including sewage sludge, end-of-life vehicles and construction and demolition waste; unsorted (mixed) municipal waste remains unsorted (mixed) municipal waste, even if it has undergone waste treatment, but this treatment has not significantly changed its properties.



Strategies and policies for garbage collection and processing of waste in Poland



Waste producer – any entity whose activity or existence causes the generation of waste (original waste producer) and any entity that carries out pre-treatment, mixing or other activities resulting in a change in the nature or composition of this waste; the producer of waste resulting from the provision of services in the field of construction, demolition, renovation of facilities, cleaning of tanks or devices as well as cleaning, maintenance and repairs is the entity that provides the service, unless the contract for the provision of services provides otherwise; producer of waste delivered to port facilities for receiving waste from ships within the meaning of Art. 5 point 9 of the Act of 12 May 2022 on port waste collection facilities (Journal of Laws, item 1250) is the entity providing the waste collection service at the port or sea harbour.





The Act of 13 September 1996 on maintaining cleanliness and order in communes is the basic act regulating municipal waste management and defines:

1. tasks of the commune,
2. obligations of property owners,
3. obligations of owners of premises in a multi-unit building in which separate ownership of premises has been established, persons who have a legal title to premises in multi-unit buildings, persons actually living in or using these premises, or persons actually living in or using premises belonging to a housing cooperative - regarding maintaining cleanliness and order,
4. conditions for conducting activities in the field of collecting municipal waste from property owners and managing this waste,
5. conditions for granting permits to entities providing services in the scope regulated in the Act,
6. obligations of municipal waste producers in terms of selective collection of this waste.



Strategies and policies for garbage collection and processing of waste in Poland



In Poland, **each waste producer**, in accordance with **Art. 4d. of the Act of 13 September 1996** on maintaining cleanliness and order in communes **is obliged to selectively collect municipal waste produced by them** in accordance with the requirements set out in the regulations for maintaining cleanliness and order in the commune, specified by a resolution of the Commune Council and in the manner specified in the regulations issued on pursuant to art. 4a sec. 1., i.e. in accordance with the Regulation of the Minister of Climate and Environment of May 10, 2021 on the method of selective collection of selected waste fractions.

The municipality is obliged to ensure cleanliness and order in its area and to create conditions necessary for their maintenance.

Municipalities in Poland in the scope of statutory obligations, among others:

- ✓ include all property owners in the commune with the municipal waste management system, and they are obliged to organize the collection of waste only from owners of real estate where residents live, for others.



Strategies and policies for garbage collection and processing of waste in Poland



In Poland, owners of real estate where no residents live and municipal waste is generated decide for themselves whether they want to join the municipal system, if the municipality decides, by way of a resolution constituting an act of local law, to collect municipal waste from owners of real estate where inhabited by residents, and municipal waste is generated;

- ✓ ensure selective collection of municipal waste, including at least: paper, metals, plastics, glass, multi-material packaging waste and bio-waste;
- ✓ create points for selective collection of municipal waste in a way that allows easy access to all residents of the commune, which will ensure the collection of at least waste, i.e. paper, metals, plastics, glass, multi-material packaging waste and bio-waste, hazardous waste, expired medicines and chemicals, waste that does not qualify for medical waste generated in the household as a result of taking medicinal products in the form of injections and monitoring the level of substances in the blood, in particular needles and syringes, waste batteries and accumulators, waste electrical and electronic equipment, furniture and other bulky waste;



Strategies and policies for garbage collection and processing of waste in Poland



- ✓ ensure waste management in accordance with the hierarchy of waste management methods;
- ✓ conduct information and educational activities in the field of proper municipal waste management, in particular in the field of selective collection of municipal waste;
- ✓ supervise the management of municipal waste, including the implementation of tasks entrusted to entities collecting municipal waste from property owners;
- ✓ ensure the construction, maintenance and operation of their own or jointly with other municipalities, or jointly with a metropolitan union:
 - a) installations for processing municipal waste, including municipal installations referred to in Art. 38b sec. 1 point 2 of the Act of December 14, 2012 on waste,
 - b) drainage stations, if it is impossible to connect all properties to the sewage system or causes excessive costs,



Strategies and policies for garbage collection and processing of waste in Poland



- c) installations and devices for the collection, transport and disposal of animal carcasses or their parts,
- d) public toilets;
- ✓ perform an annual analysis of the state of municipal waste management in order to verify the technical and organizational capabilities of the commune in the field of municipal waste management.

Communes are obliged each year:

- ✓ achieve the level of preparation for reuse and recycling of municipal waste, which in 2023 is 35% by weight;
- ✓ not to exceed the storage level of 30% by weight - for each year in the years 2025-2029;
- ✓ limit the weight of biodegradable municipal waste sent for landfilling to no more than 35% by weight of the total weight of biodegradable municipal waste sent for landfill in relation to the weight of this waste generated in 1995.



Strategies and policies for garbage collection and processing of waste in Poland



Each municipality in Poland has the right to define and organize a municipal waste management system in an individual manner, while maintaining common rules for the entire country, including: the minimum scope and method of selective collection of municipal waste, i.e. including at least: paper, metals plastics, glass, multi-material packaging waste and bio-waste, minimum collection frequency of unsorted (mixed) municipal waste and bio-waste, maximum fee rates for municipal waste management.

As a rule, residents of Poland must collect waste selectively, as provided for in the **Act of 13 September 1996** on maintaining cleanliness and order in communes, and in particular the **Regulation of the Minister of Climate and Environment of 10 May 2021** on the method of selective collection of selected fractions of waste, however, the legislator gives the commune councils the opportunity to decide on the details.



Strategies and policies for garbage collection and processing of waste in Poland



Unified requirements for the selective collection and collection of municipal waste in order to achieve the required levels of preparation for reuse and recycling of municipal waste, reduce the weight of municipal waste undergoing biodegradation of goods sent for storage and landfilling is regulated by **the Regulation of the Minister of Climate and Environment of May 10, 2021** on the method of selective collection of selected waste fractions.

According to the **Minister of Climate and Environment**, in order to harmonize the requirements and ensure the achievement of appropriate levels, according to the said regulation, it is enough to specify:

- what fractions must be collected selectively,
- colors and descriptions of containers and bags in which individual fractions of waste are to be collected, and
- that selective fractions of waste are collected in a way that ensures protection of waste against deterioration of its quality.



Strategies and policies for garbage collection and processing of waste in Poland



The Act on maintaining cleanliness and order in communes, on the other hand, indicates that Polish residents must also, on a mandatory basis, separately collect waste such as: hazardous waste, expired drugs and chemicals, waste that does not qualify as medical waste, which was generated in the household as a result of taking medicinal products in the form of injections and monitoring the level of substances in the blood, in particular needles and syringes, used batteries and accumulators, used electrical and electronic equipment, furniture and other bulky waste, used tires and textile and clothing waste, as well as construction and demolition waste from households, and the commune must ensure the collection of this waste at PSZOK, it does not have to collect this type of waste directly from the property.



Pursuant to the **Act on maintaining cleanliness and order in communes**, the commune council has the right to introduce other, broader, obligations for property owners, which must be indicated in the regulations for maintaining cleanliness and order in the commune and in the resolution on the detailed method and scope of providing services in the field of collecting municipal waste from property owners and management of such waste, in return for a municipal waste management fee paid by the property owner.

Regulations for maintaining cleanliness and order in a given commune specify detailed rules for maintaining cleanliness and order, including in the scope of:

- ✓ selective collection and collection of municipal waste, including at least: paper, metals, plastics, glass, multi-material packaging waste and bio-waste, whereby the commune council may introduce an obligation to selectively collect and collect also municipal waste other than those mentioned above,



Strategies and policies for garbage collection and processing of waste in Poland



- ✓ collection of municipal waste conducted by selective municipal waste collection points, the so-called PSZOK, to which owners of inhabited real estate may return municipal waste free of charge, while the commune council may introduce e.g. restrictions on the amount of waste that can be returned to PSZOK,
- ✓ type and minimum capacity of containers or bags intended for the collection of municipal waste on the property, conditions for placing these containers and bags and maintaining the containers in the appropriate sanitary, orderly and technical condition,
- ✓ maintaining waste collection sites in a proper sanitary and orderly condition,
- ✓ the frequency and method of disposing of municipal waste and liquid waste from the property and from areas intended for public use,
- ✓ other requirements resulting from the voivodeship waste management plan.



Strategies and policies for garbage collection and processing of waste in Poland



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- ✓ maintaining waste collection sites in a proper sanitary and orderly condition,
- ✓ the frequency and method of disposing of municipal waste and liquid waste from the property and from areas intended for public use,
- ✓ other requirements resulting from the voivodeship waste management plan.



Strategies and policies for garbage collection and processing of waste in Poland



In addition, **the bylaws** may also include:

- ✓ decide to collect waste that is parts of plants from the maintenance of green areas, gardens, parks and cemeteries separately from other biowaste constituting municipal waste,
- ✓ specify additional conditions for facilitating selective collection of waste by people with disabilities,
- ✓ specify the requirements for composting bio-waste constituting municipal waste in home composters on the premises of real estate developed with single-family residential buildings and exempt the owners of such real estate, in whole or in part, from the obligation to have a container or bag for this waste,
- ✓ specify the conditions for recognizing that waste is collected in a selective manner,
- ✓ introduce an obligation to use individual labeling of containers or bags intended for municipal waste collection,
- ✓ specify the method of reporting the location of the waste collection site by the property owner



Strategies and policies for garbage collection and processing of waste in Poland



The fee rates may be differentiated by the commune depending on the usable area of a dwelling, the amount of water used from a given property or dwelling, the number of inhabitants living in the property, the number of people or the amount of water used in a household, the collection of waste from rural or urban areas, as well as the type of buildings.

Where the property owner fails to comply with the collection obligation municipal waste in a selective manner, the fee rate is increased from two to four times the basic rate, depending on the choice of the Commune Council.

The Commune Council may introduce reductions in fees or partial exemptions, e.g. for households with low income - entitled to cash benefits from social assistance, or for owners of real estate developed with single-family residential buildings composting bio-waste.

The Act on Maintaining Cleanliness and Order in Municipalities specifies the upper rates of fees that may be set by the commune council.



Strategies and policies for garbage collection and processing of waste in Poland



In Poland, entrepreneurs who want to conduct business in the field of collecting municipal waste from property owners must meet a number of conditions set by law. The basic condition is to have an entry in the register of regulated activities in the field of collecting municipal waste from property owners in the commune where the entrepreneur intends to conduct this type of activity (hereinafter the register).

The register is kept by the commune head, mayor or president of the city competent for the place of collecting municipal waste.

The entrepreneur must know and meet the conditions for conducting activities in the field of collecting municipal waste from property owners, set out in the **Act on maintaining cleanliness and order in municipalities** and in the regulation of the **Minister of the Environment of 11 January 2013** on detailed requirements for collecting municipal waste from property owners (**Journal of Laws of 2013, item 122**).



Strategies and policies for garbage collection and processing of waste in Poland



Anyone who does not comply with certain laws is subject to penalties that are more or less severe in Poland, but it is difficult to enforce them, in particular against property owners who do not know the law or deliberately do not apply it, usually due to: lack of awareness or sheer laziness.

Municipalities and entrepreneurs operating in the industry implement environmental education in various forms and on various levels, which is why the level of awareness of the inhabitants of Poland is increasing, but it must be a continuous process, because the regulations and requirements set as well as the needs in the field of environmental protection are constantly evolving.





Strategies and policies for garbage collection and processing of waste in Greece



Within the past 3 years, the urban solid waste management systems in Greece - at both regional and local level- are under urgent transformation, in order to fulfil specific targets of the EU and national policies, as well as legal obligations and address the long-existing inefficiencies and poor compliance. The legislation framework and the national/regional/local policies are considered complete and fully updated, with all the latest EU Directives having been transposed. The basic laws describing and regulating the collection and management of urban solid waste by the responsible entities are the following:

Law 4042/2012 (Government Gazette 24/A'/13.02.2012): Penal protection of the environment – Adjustment to Directive 2008/99/EC - Framework for the production and management of waste Adjustment to Directive 2008/98/EC- Regulation of issues related to the Ministry of Environment, Energy and Climate Change **as amended and updated by Law 4819/2021 (Government Gazette 129/A'/23.07.2021):** Integrated framework for waste management –



Strategies and policies for garbage collection and processing of waste in Greece



Adjustment to the Directives 2018/851 and 2018/852 of the European Parliament and the Council of the 30th May 2018 for the amendment of Directive 2008/98/EC for waste and the for waste and the Directive 94/62/EC for packaging and packaging waste, Organization framework of the Hellenic Recycling Agency, provisions for plastic products and the protection of natural environment, spatial-urban planning, energy and relevant urgent regulations **and further corrections**.

The articles deal with all the issues described in the previous law. Some important provisions are those concerning the legal and operational frame of the Hellenic Recycling Agency.



Strategies and policies for garbage collection and processing of waste in Greece



By the end of 2025, a recycling rate of 65% by weight should be achieved. The individual recycling targets per type of packaging material are 75% for paper, 50% for plastics, 70% for glass, 70% for ferrous metals, 50% for aluminium, 25% for wood. Recycling from 55 to 80% by weight of total packaging waste. By the end of 2030, a recycling rate of 70% by weight should be achieved. The individual recycling targets by type of packaging material are 85% for paper, 55% for plastics, 75% for glass, 80% for ferrous metals, 60% for aluminium, 30% for wood.

Both laws are available at the following links:

https://ypen.gov.gr/wp-content/uploads/2021/06/%CE%9D-4042_2012%CE%A0%CE%A1%CE%9F%CE%A3%CE%A4%CE%91%CE%A3%CE%99%CE%91-%CE%A0%CE%95%CE%A1%CE%99%CE%92%CE%91%CE%9B%CE%9B%CE%9F%CE%9D%CE%A4%CE%9F%CE%A3.pdf

https://www.eoan.gr/%ce%bd-4819-2021-%ce%b1-129/%cf%86%ce%b5%ce%ba-%ce%b1-129_23-07-2021-%ce%bd-4819_2021/



Joint Ministerial Decision YPEN/DDA/90439/1846

(Government Gazette 14515/B’/ 30.09.2021): Measures and conditions for the sanitary landfilling of waste in accordance with the provisions of the Directive 99/31/EC of 26th April 1999 “on landfilling of waste”, as amended by Directive (EU) 2018/850 of the European Parliament and of the Council of 30th May 2018/ The purpose of the joint ministerial decision is to transpose the relevant European legislation that ensures the gradual reduction of waste sanitary landfilling and supports the targets for the transition to a circular economy. The categories of landfills, the types of waste that are not accepted in landfill facilities, the specifications for disposal of solid waste in these sites and the procedure for receiving them are defined. The calculation methods for the determination of targets achievement and the procedure for the registration in the Waste Electronic Registry are determined.



Strategies and policies for garbage collection and processing of waste in Greece



The procedure for licensing and operation approval of sanitary landfills, as well as and the sampling procedures during the inspections are described.

https://www.eoan.gr/wp-content/uploads/2021/10/%CE%9A%CE%A5%CE%91_%CE%A5%CE%A0%CE%95%CE%9D_%CE%94%CE%94%CE%91_90439_1846_%CE%A6%CE%95%CE%9A-4514%CE%92_30.9.2021.pdf

Joint Ministerial Decision 56366/4351 (Government Gazette 3339/B'/12.12.2014): Determination of requirements (specifications) for processing operations in the context of the mechanical - biological treatment of mixed municipal waste and determination of the characteristics of the produced materials based on their use, according to subsection b of paragraph 1 of article 38 of Law 4042/2012./ By this law, the specifications of the mixed municipal waste treatments and the required characteristics of the secondary products for their prelease on the market are determined.

https://www.elinyae.gr/sites/default/files/2019-07/3339b_2014.1418726257125.pdf



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Law 4496/2017 (Government Gazette 170/A'/08.11.2017): "Amendment of Law 2939/2001 on the alternative management of packaging and other products, adaptation to Directive 2015/720/EU, regulation of issues concerning the Hellenic Recycling Agency and other provisions"

The law replaces the former Law 2939/2001 (Government Gazette 179/A'/06.08.2001) "Packaging and alternative management of the packaging of other products - Establishment of a National Organization for the Alternative Management of Packaging and Other Products (EOEDSAP) and other provisions" and its amendment by Law 3854/2010 (Government Gazette 94/A'/23.06.2010), which had introduced the recycling of packaging, the responsible operators and supervising authorities of recycling activities and more specifically the operation and accreditation process of the alternative management systems, the programs that they can implement, as well as their obligations. https://www.eoan.gr/wp-content/uploads/2017/11/4496_2017.pdf



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Law 4685/2020 (Government Gazette 92/A'/07.05.2020): "Modernization of the environmental legislation, incorporation into Greek legislation of Directives 2018/844 and 2019/692 of the European Parliament and of the Council and other provisions". The new legislation framework for simplifying the environmental licensing of activities, the evaluation of environmental impact studies and the management of the country's protected areas and ecosystems.

<https://www.kodiko.gr/nomothesia/document/618405/nomos-4685-2020>

Law 4736/2020 (Government Gazette 200/A'/20.10.2020): Incorporation of the EU Directive 2019/904 regarding the reduction of the effects of certain plastic products on the environment and other provisions. The law aims to reduce the environment impact (mainly on aquatic ecosystems) and human health and facilitate the transition to a circular economy. Measures, such as the definitive ban of certain single-use plastic products and their replacement by alternative products and the gradual reduction of single-use plastic consumption by establishing quantitative targets, are adopted.



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Restrictions are also introduced on the availability of certain types of plastics on the market and special requirements are set for the plastic products themselves as well as their correct labelling. In some cases, the separate collection of packaging waste is adopted. The existing extended producer responsibility programs are expanded, to incorporate some additional categories of plastic waste. The law also describes measures for raising awareness of citizens and control systems for the implementation of the new legal framework.

https://www.eoan.gr/wp-content/uploads/2020/11/%CE%BD.4376_2020_%CE%A6%CE%95%CE%9A200%CE%91.pdf

The legislative framework that defines the responsibilities and obligations of municipalities regarding the collection and management of municipal solid waste (MSW) includes the following laws:



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N.3463/2006 (Government Gazette 114/A'/08.06.2006) and its amendments: "Sanction of the Municipalities and Communities Code "/ According to article 75, municipalities are responsible for the collection and management of MSW, in order to keep public areas within their boundaries clean.

<https://www.kodiko.gr/nomothesia/document/43235/nomos-3463-2006>

N.3852/2010 (Government Gazette 87/A'/07.06.2010) and its amendments: "New Architecture of local authorities(NUTS II, and LAU) and Decentralized Government (NUTS I) - Kallikratis Program"/ According to Article 94, additional responsibilities are provisioned for municipalities related to the temporary storage, transportation, treatment and utilization of solid waste in approved facilities and the rehabilitation of waste disposal sites. The management is always conducted according to the respective regional plan.

<https://www.kodiko.gr/nomothesia/document/132966/nomos-3852-2010>



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N.4555/2018 (Government Gazette 133/A'/19.07.2018): "KLEISTHENIS I" Local Authorities Reformation Program/ In Article 228 of the law (and its amendments), the responsibilities of municipalities are defined and specified in relation to the management of municipal solid waste.

<https://www.kodiko.gr/nomothesia/document/385525/nomos-4555-2018>

From the above-mentioned laws and their amendments, it can be deduced that municipalities have full and not exclusive responsibility for solid waste management from the stage of prevention to the stage of final disposal.

Law 25/ 1975 (Government Gazette 74/ A'/ 16.4.1975): "On calculation and collection system of municipal and community fees for cleaning and lighting services and regulation of related matters"/ This law, as amended by Law 4554/2018 (Articles 185 and 222) and in force, provisions a single remunerative cleaning and lighting fee, which is imposed on every property located within the administrative territory of the municipalities.



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The single compensatory cleaning and lighting fee is calculated based on the surface area of the respective property and results from the multiplication of its square meters by the coefficient of the single compensatory fee. The coefficient is defined, per category of use of the properties, by decision of the municipal council. The charging of the fees is made through the energy supply bills of the households at each municipality.

<https://www.kodiko.gr/nomothesia/document/335511/nomos-25-1975>

Provisions for the responsibilities, operation, and regulatory measures for the modernization of the organization framework and operation of the inter-level associations for the integrated solid waste management of regions (FoDSA) of the country, are contained in the following laws:

Joint Ministerial Decision 50910/2727 (Government Gazette 1909/B'/22.12.2003) “Measures and Conditions for Solid Waste Management. National and Regional Management Plan”

<https://www.eoan.gr/wp-content/uploads/2020/07/e6829ca1ecb700830b9fe930250de979e815b50d.pdf>



Local Waste Management Plan (LWMP) of Galatsi Municipality (2020). The plan has been prepared in accordance with the updated legislation and the objectives of the NWMP 2020-2030. The first sections of the document depict the services, infrastructure, equipment and the available network that supports the collection and transport of MSW in the Municipality of Galatsi. The collection programs for mixed waste and recyclable packaging materials are described and the waste management costs are reported. All contracts with alternative management systems for the disposal of different streams of recyclable materials are also reported. The performance of the municipality for the year 2019, which is the starting point for future planning, is:





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- ✓ An annual production of 20,337 tons of MSW
- ✓ Separate collection of streams at a rate of 9.8%wt. of the total waste produced and a remaining 90.2% by weight corresponding to mixed MSW for treatment and final disposal
- ✓ A total annual management cost for collection, transport, treatment and landfilling of 4.02 million euros
- ✓ An annual cost 197.92 euros/ton of waste or 67.83 euros/inhabitant

Future planning focuses on the overall reduction of waste that ends up in the municipality's green bins for mixed waste. The targets of the plan for 2025 are sorting at the source at a rate of 53.7% by weight of the total MSW, separate collection of recycling streams at 60%wt. on the produced streams, separate collection of bio-waste at a 46.4% of the produced bio-waste . To achieve the future targets, 21 proposed actions are provisioned. Some of the addressed fields are:



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- ✓ Actions for waste prevention and reuse of materials, through education campaigns, utilization of recycling corners for this purpose, promotion of food donations, voluntary agreements and creation of a reuse and repair network.
- ✓ Enhancement of sorting at source for packaging materials, through the utilization of equipment of the Hellenic Recovery Recycling Corporation (blue bins, arrays of bins for recyclables, vehicles), strengthening the infrastructure of storage, collection and transport.
- ✓ Separate collection of bio-waste , through the development of the network of brown bins in two implementation phases in combination with information actions. Collection with both central bins and door-to-door system.
- ✓ Separate collection of green waste. System organization and supply of collection, shredding and transport equipment.
- ✓ Separate collection of glass packaging, promoting the return to stores on a priority basis and as a second option the recycling through the existing network of bells provided Hellenic Recovery Recycling Corporation.



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- ✓ Separate collection of paper. Participation in the paper collection program implemented by the Inter-level Association of Attica Region (EDSNA) for the direct coverage of large producers of paper waste such as banks and public services. Gradual equipment supply for the operation of an autonomous paper collection system.
- ✓ Separate collection of textile products waste, through a contract with an alternative management system.
- ✓ Separate collection of electrical and electronic equipment waste. Increase of separate collection through renewal/signing of new contracts with management systems and targeted information to citizens.
- ✓ Separate collection of edible oils. Organization of a collection network through contracts with private entities, installation of bins and launching of contests to encourage the collection within school units.



Planning Report for Separate Collection of Bio-Waste of the Municipality of Galatsi (2020). This techno-economic report is a complementary tool for the implementation of the LWMP and concerns the planning and effective organization of bio-waste management actions at the Municipality of Galatsi.

The basic guidelines for the organization of separate collection of green waste from pruning and cleaning of parks, plots and other areas are also mentioned. The two aforementioned documents that reflect the local planning of the Municipality of Galatsi are posted in a common folder at the link:

https://www.edsna.gr/wp-content/uploads/2022/01/11_%CE%94%CE%97%CE%9C%CE%9F%CE%A3-%CE%93%CE%91%CE%9B%CE%91%CE%A4%CE%A3%CE%99%CE%9F%CE%A5.zip



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Circular Economy – The New National Action Plan of

Greece The national strategy for circular economy has been updated taking into consideration the New Plan of the European Commission for Circular Economy (2019) and the European Green Deal. This guide has been designed for the implementation period 2021-2025 and consists of 71 actions aiming at a sustainable and competitive national economy, the protection of the environment, new rights for the consumers and generally at a greener future. The eligible actors (government departments, regional and local authorities, industries, public sector services, businesses, citizens) and the coordinating/accelerating authorities per type of action are specified and the implementation time frames are compatible with the respective EU initiatives. These actions cover the whole country territory and the entire value chain of the basic products and are being developed in 5 axes.

<https://ypen.gov.gr/wp-content/uploads/2022/03/SXEDIO-DRASHS-KO-8.pdf>



Belgium (Legislation and Policies at national level)

4 November 2008 - Cooperation Agreement on the prevention and management of packaging waste

The Cooperation Agreement consists of seven Chapters (General provisions - Packaging prevention plan - Management of packaging waste - Reporting obligation - The Interregional Packaging Commission and the competent regional administration - Monitoring, administrative penalties and penal provisions – Final provisions) and thirty-seven Articles.

The Cooperation Agreement begins with the constitutional and legal provisions that is based on and it continues with many definitions concerning Packaging, Waste Packaging and the factors engaged – eg “Sales packaging or primary packaging”, “Grouped packaging or secondary packaging”, “Transport packaging or tertiary packaging” etc.



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The application of the Agreement concerns “all transport, grouped or sales packaging and packaging waste” (Art. 3.1), under five Objectives, the prevention or the reduction of the production or the harmfulness of packaging waste, the stability of the proportion of the waste of each reusable good, per each year, to encourage the use of recycled materials, to oblige responsible companies, especially take – back obligation, the organizing and the reporting of responsible companies and other parties.

Quantitative targets are also set, concerning every type of packaging waste, for the years 2009 and 2010 – eg for the year 2009, the household packaging waste should have been 80% of the year 2008, concerning recycling.

Legal and financial provisions about the responsibilities of companies and other organizations are presented in details, including provisions about monitoring by the Interregional Packaging Commission. Furthermore, the companies should report their actions concerning packaging waste.



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There are, also, provisions about the administration of the system, based on the Interregional Packaging Commission, of which the structure is described (eg a decision making body of nine members, its authority, its meetings etc). Moreover, there are penal provisions for the companies and the organizations that don't comply with the rules and regulations of the Agreement.

The last Chapter of the Agreement presents the final provisions, eg that the Agreement shall come into force on 1 January 2009.

<https://www.ivcie.be/wp-content/uploads/2021/05/Cooperation-agreement-of-04-11-2008-on-the-prevention-and-management-of-packaging-waste.pdf>



Brussels 14 JUIN 2012 - Ordonnance relative aux déchets
Region de Bruxelles Capital (Decree for Waste of Capital
Brussels Region)

In Chapter 1 introductory provisions about Waste are presented. In Chapter 2, general provisions and definitions of terms, the application of the Decree, its Principles, the qualification criteria and the list of the Waste are presented. In this Chapter, the Hierarchy of the Waste is, also, included.

In the Chapter 3, the planning of the prevention and the Waste Management, including the contents of the plans – the structure based on analysis, objectives, measures and indicators - and the procedures – the role of the Government and Agencies, are presented. In Chapter 4, there are provisions concerning the prevention materials and waste management. For instance, a separate collection of paper, cardboard, metal, plastics, glass and hazardous waste of households is provided.



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In Chapter 5, the responsibilities of each factor are presented (producers and collectors), including financial responsibilities, whereas, in Chapter 6, there are provisions for certain categories of Waste (hazardous, biowaste, waste oil), their separate collection and processes and the authority that the Government retains.

In Chapters 7, 8 and 9, there are provisions for permissions – eg for incinerations – taxes – eg “29 € for any ton of waste incinerated beyond threshold” plus various percentages depending on the type of the waste or the year after 2015 – and sanctions – both penal and financial for person or organizations that violate environmental laws.

In Chapter 10, final provisions are presented, concerning modifications or interpretations of relative laws.

<http://www.ejustice.just.fgov.be/eli/ordonnance/2012/06/14/2012031319/justel>



**Wallonia, Décret relatif aux déchets, Decree related to waste
(including modifications until 08/03/2023)**

In the Chapter 1, there are general provisions, concerning waste, while in Chapter 2, there are provisions for the prevention and the limitation of waste. In the Chapter 3, there are provision for the prevention and the limitation of nuisance during waste management.

In the Chapter 4, the transfer of the waste is regulated, whereas in the Chapter 5, the Planning of Waste management is described. In the Chapter 6, there are special provisions and, in the Chapter 7, there are functional provisions. In the Chapter 8, measures for security are presented. In the Chapter 9, the compensation for damages by Wallonian Government is described. In the Chapter 10, the surveillance, the administrative sanctions and penalties are presented. In the Chapter 11, international obligations are described, whereas, in Chapter 12, amending and repealing provisions are presented. In Chapter 13, Final Provisions are made, concerning the links of the Decree to other laws and plans.



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According to *Décret relatif aux déchets* (including modifications, until 08/03/2023) a hierarchy of waste is established as below, which applies in order of priority in the legislation and more specifically: a) prevention, b) preparation for reuse, c) recycling, d) recovery, in particular energy recovery, e) elimination.

Additionally, recycling is defined as “any recovery operation by which waste is reprocessed into products, materials or substances for the purpose of their original function or for other purposes. This includes the reprocessing of materials organic materials, but does not include energy recovery, conversion for use as fuel or for landfill operations”.

Moreover, the Decree provides ordinances about the verification and the calculation of the waste after the processing. More specifically, the waste that ceased to be waste is considered as “recycled waste” or “recovered waste”, respectively, provided that the conditions demanded by the law are met.



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The Decree recognizes the take – back obligation for goods or waste, declaring that the government is going to determine the rules and regulations and the factors engaged, in relation to the objectives, the management methods, information, terms and conditions and the procedures.

<http://www.ejustice.just.fgov.be/eli/decret/1996/06/27/1996027438/justel>

Flanders, Materials Decree 23 DECEMBER 2011. - Decree on the sustainable management of material cycles and waste

In Chapter 1, there are references to the constitutional basis of the Decree and the definitions of many terms – eg “waste”, “waste trader”, “waste producer”, “OVAM” etc.

In Chapter 2, there are several provisions about the management of waste and its cycle, especially, concerning the administration, in which Government of Flanders is pivotal, assisted by OVAM, which is the Public Waste Agency of Flanders.



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Both authorities are going to ensure the reuse of the objects and the components of the objects, while the activities preparing reuse are encouraged, just as the high-quality recycling. The Government of Flanders retains the right to impose various measures to waste traders, producers etc, in order to secure the implementation of the decree, while various provisions for the planning, the consultation and the monitoring of the process are described.

In the Chapter 3, there are several provisions on specific issues of waste management, such as the waste of households, operational waste, hazardous waste and special waste. In respect to the previous issues, detailed provisions about the obligations of the municipalities and private agents, both individuals and legal entities, are presented.

In the Chapter 4, a demarcation of the Waste is described, based on the chemical transformation of the products, including administrative procedures.



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In the Chapter 5, Environmental contributions, taxes and fees are presented, concerning licensing procedure, the fines, in case of violation, and fees for applications related to waste management – eg registration of companies etc.

In the Chapter 6, there is a brief description of “Plan C: Towards greater autonomy”, which refers to a Partnership of OVAM, the Department of Economy, Science and Innovation, the Department of Services for the General Government Policy and the Flemish Institute for Technological Research, offering know – how and support to private and public legal entities, about sustainable management of materials, for a better allocation of resources and tackling other problems.

In the Chapter 7, there are provisions for supervision and crime, referring to other environmental Laws of Region of Flanders, while in the Chapter 8, there are amendments to other Decrees, regarding environmental issues.



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Finally, in the Chapter 9, there are the Final Provisions of the Decree, repealing past Decrees on the prevention of waste, toxic waste etc.

<https://navigator.emis.vito.be/htmlServlet?woId=41707&woLang=en&version=2017-04-13&lang=nl>

Early warning assessment related to the 2025 targets for municipal waste and packaging waste - Belgium (2022) EEA

In 2019, 1,8 million tons (160 kgr/ cap), from households, industrial, commerce of packaging waste were generated in Belgium. Additionally, since 2010, the total packaging waste generation is over 10%. Moreover, an increase of 10% - 15% is recorded in paper, cardboard, wooden and plastic packaging, while an increase of 2,2% in glass packaging, over the past ten years.



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In Belgium, households are living in cities up to 60.67%, in towns and suburbs up to 35,59% and in rural areas up to 3,7%. During 2017 – 22, almost five million tons of municipal waste were generated in 2020, which corresponds to 416 kg/ cap, a rate that is below EU average of 505 kg/ cap. Overall, the half of municipal solid waste (MSW) is directed to recycling.

Furthermore, there is no landfill facility in BCR/ landfill ban in Flander and Wallonia. In 2020, landfill rate was at all-time low of about 1%. A high level of incineration around 43% in 2020, was recorded.

In conclusion, Belgium tends to comply with EU's rules and regulations and meets EU targets. More specifically, Belgium is not at risk neither in the prospects for meeting the recycling target for municipal solid waste, nor for the prospects for meeting the recycling targets for packaging waste, nor for the prospects of meeting the landfill of municipal waste target.

<https://www.eea.europa.eu/publications/many-eu-member-states/belgium/view>



Official Plans of Recycle and Circular Economy

Plan d' action fédéral pour une économie circulaire 2021-2024 (Federal Plan of Action for a Circular Economy 2021 – 2024)

Circular economy covers human needs, without the violation of biophysical limits of the planet. Using several methods (design, intelligent use of products, reuse and/or shared use of products, repair, reconditioning, the recovery of spare parts or finally recycling) circular economy maintains the use value of products, components and materials, as long as it is feasible. This contributes in the sustainable development and leads to the protection of natural resources, the prevention of waste and pollutants and the cautious use of territorial wealth.

Recycling is a fundamental component of circular economy and, therefore, it constitutes an object of several objectives and measures. More specifically, recycling is promoted through objectives and measures as follows.



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Objective 1 – Stimulate the marketing of circular products and services

Measure 1: Improve the design of certain products to facilitate their recycling

Leader: FPS Public Health in consultation with the actors concerned

Between 2018 and 2020, an analysis was made concerning the recycling process of waste branches (eg household packaging, electrical and electronic equipment, batteries, paper/cardboard, textiles, tires, small hazardous waste, construction waste, etc.), in consideration with barriers in technology.

The conclusion was that “design can indeed hinder the recycling process, even prevent it in some cases”.

For instance, non – homogeneous composition of packaging may mislead sorting devices in the identification of materials and, thus, certain recyclable products might be excluded from recycling.



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This problem could be observed in many cases in recycling process. Opaque and different colors, dark glass, the presence of paint or the addition of layers of internal protection may prevent the recycling of packaging. Bonded or melted components in equipment may prevent the recycling process in electronics. Multilayer panels, unknown materials, tarred roofing materials, embroidered logos, buttons, zippers, Velcro may also prevent the recycling of building materials or textiles. Re – use or repair of a product could be heavily depended in design, either its components or the product as a whole, eg with regard to the dismantling of certain product.

In conclusion, circularity can be deteriorated by the barriers in the recycling process.



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Measure 4: Develop a reliable certification for the content of recycled materials. It is developing a certification system attesting that a product contains recycled materials. Such certificate will be issued by accredited certification bodies, which can carry out the tests required. The requirements of the certificate and the necessary tests will be defined in collaboration with the authorities. At the same time, minimum requirements will be established by Royal Decree for any producer wishing to display the claim “contains recycled materials” or any claim similar on its product.

Leader: FPS Public Health in consultation with the actors concerned

Incorporating recycled materials in the new products is an objective of circularity and European official plans. A provision in Packaging Waste Directive demands the incorporation of recycled plastic at least 25% in certain products, after 2025, and at least 30% recycled plastic in bevered bottles after 2030.



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However, there are still obstacles and questions. On certain occasions, it is difficult to guarantee that recycled material are going to quality standards, such as chemical safety etc, as the original products do.

Such problems may diminish the consumers' trust and, in the worst case, may affect consumers' health. Therefore, the overall environmental evaluation of the product should be the main focus of authorities and producers. Whenever this is not feasible (eg plastic polymers), each factor may comment on his subject on the administrative database.

Objective 2: Encourage more circularity in production methods

Measure 11: Support the development of an effective digital system for tracking material flows at the European level in order to increase transparency on the components of the products and guarantee their high quality and safety recycling. A first study, analyzing at the Belgian level the needs and technical possibilities was financed in 2021 by the FPS Public Health. The results of this study will be valued at European level (in particular within the framework of the initiative on sustainable products) and will complement the ongoing analysis at European level.



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Leader: FPS Public Health in consultation with the actors concerned

There is often poor communication between the manufacturer, the retailer, the purchaser and the company responsible for reuse or final recycling. A higher quality recycling demands the transparency of the industrial value chain and the safety of the products. There is a need for an effective traceability system at European level in order to monitor the products, materials and chemical substances. The simplification of the system is going to help the SMEs to achieve the respective standards.

Measures added later

Measure 27: Study how regional measures within the framework of the extended responsibility of producers can be strengthened by federal commodity policy



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Pilot: FPS Public Health in collaboration with other partners

It is considered that a federal policy is going to assist the regional plans In the Extended Producer Responsibility, concerning recyclability, toxic substances or content recycled. There is, in existing and planned REP programs, a need for certain opportunities at minimum, and more specifically:

- a) an increase of the recyclability of products and packaging,
- b) an increase in the content of recycled materials in products and packaging covered,
- c) a design for products with longer life,
- d) an increase of the proportion for reusable packaging or products on the market.



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Measure 30: Recreational Vessel Recycling

Pilot: FPS Mobility in collaboration with FPS Public Health (North Sea)

Recreational boating wrecks are a major source of pollution in North Sea. Thus, there is a need for regulatory measures in order to develop a process for these hulls.



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Measure 31: Analyze how to develop the sector for reusing and recycling batteries from electric motor vehicles, including bicycles and micromobility

Leader: FPS Mobility in collaboration with FPS Public Health (Environment) and FPS Economy (Energy)

Reusing and recycling batteries, in parallel with micromobility tools and bicycles, is an important factor for the confrontation for Climate Change, since the decarbonization of transport demands sustainable modes of travel and zero emissions from electric vehicles.

Furthermore, batteries may also be a source of pollution or contain rare materials, which are not easily available, either due to geography or due to quantity.

https://www.health.belgium.be/sites/default/files/uploads/fields/fpshealth_theme_file/paf_face_sept_2022_fr_-_version_finale.pdf



GOOD FOOD STRATEGY TOWARDS A SUSTAINABLE FOOD SYSTEM IN THE BRUSSELS-CAPITAL REGION

The reduction of the food waste strategy is a priority goal, focusing on reducing the food waste at the root and recycling unsold food and organic waste. On the long term, waste could be almost non – existent in Brussels in 2035. There is a strong need for the transformation of the unsold food, which is going to be met by the Region.

Every year, 134,000 tons of organic waste are produced. A household in Brussels throws 15 kg of food away every year. There are two Actions concerning the management of foodwaste.



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Action 1: Reduce Foodwaste at the Source

The tackle of the problem of food waste needs a mix of actions, such as planning purchases, adopting food conservation techniques, learning to cook with leftovers, understanding conservation instructions, etc.

However, these actions cannot be implemented without the information and raising awareness among the households. Thus, practical information tools and training courses about “Good Food” are necessary for the reduction of food waste at the source.

Many of these educational tools are going to be used in schools. Furthermore, an initiative has already been implemented, concerning the encouragement of the purchase of “imperfect” fruit and vegetables.



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Action 2: Recycle Unsold Food

Except for the reduction of the food at the source, the recycle of the unsold food is another option. Local stakeholders (social restaurants, public welfare centres and food aid associations) work directly with shops in the neighborhood.

The Strategy supports food surplus initiatives, especially in the co – financing logistics that is required for the collection of the items.

Aligning the supply of the recycled unsold food with the demand from beneficiaries is another aim of the Action. A pilot action is going to take place, on local level, concerning the recycle of the unconsumed food by the households. The transformation of food surplus into different format will, also, be supported.

https://document.environnement.brussels/opac_css/elecfile/BRO_GoodFood_Strategy_ENGL.pdf



Plastics Implementation Plan 2020-2025 – Region of Flanders

A Background of the Plan is presented, concerning the purpose (a “much-needed framework and overview of actions that contribute to a sustainable management of the plastics cycle”), the scope (“all plastics, plastic items and plastic waste, both pre-consumer (e.g. production scrap and cutting residues) and post-consumer, of household as well as industrial origin”) and the validity period (“The present plastics plan is valid until the end of 2025 and will remain valid until it is replaced with another plan”).

In addition, the Policy Context is described with reference to:

a) European *Circular Economy Package*, which “adopts a life cycle approach and includes a focus upfront in the chain, through policies on ecodesign and sustainable production and consumption”,



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- b) *European Plastic Strategy*, on which plastics became key – priority in Circular Economy,
- c) *European Strategy for a Non-Toxic Environment*, concerning chemicals and waste legislation,
- d) *Flemish Policy Context*, that is
 - da) the *Vision 2050*, which is “long-term strategy of the Government of Flanders for a strong, social, open, resilient and internationally-connected Flanders that creates prosperity and well-being in a smart, innovative and sustainable way, and in which every individual counts”,
 - db) *Flemish Coalition Agreement*, a “focus on waste prevention, ecodesign (including through public procurement), reuse, sorting, recycling and recovery of plastics” and
 - dc) *Plastic in Existing OVAM Plans*, a compilation of various waste and materials plans.

Moreover, Plastics Landscape in Flanders is presented, concerning polymer producers, plastics converters, plastic collectors and sorters and plastic recyclers. Flanders is efficient in the research of polymers and the recycling of plastics has begun.



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Although many companies use plastic recyclates, however, there is a reluctance to communicate the information to the public, due to the fear that their products will be considered as inferior. Ideally, the challenge is an integrated plastic chain.

The Strategic Framework is presented, based on:

- a) the transition, through several initiatives (“Catalisti”, “Moonshot”, “Circular Flanders”)
- b) the Vision, including aims:
 - ba) “plastic products are designed in such a way that they have a long lifespan, can be reused, and are subsequently recycled in a high-quality manner;”,
 - bb) “plastics are used as efficiently as possible, so that fewer primary raw materials need to be used and chain losses are avoided”,
- c) principles, concerning management hierarchy for plastics, ecodesign in the circular plastics cycle,
- d) the description of role of bio – based plastics and
- e) the description role of biodegradable plastics.



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The Action Program for Plastics contains detailed activities for less and efficient use of plastics, the creation of a sustainable recycling market, plastic recyclate as a fully – fledged raw material, knowledge gathering and data collection and the role of public administration.

The Actions Program for Plastics include activities for food, design of the products, microplastics, pellet, governance, research, recycling, legal barriers, several studies and reports. Finally, the Monitoring of Actions includes provisions about stakeholder platform, budgeting and evaluation.

<https://publicaties.vlaanderen.be/view-file/55065>



**Plan de Gestion des Ressources et des Déchets: Pour
une consommation durable, sobre, locale et circulaire/ Pour
une société zéro déchet**

(Management Plan of Resources and Waste: For a Sustainable
Consumption, Sober, Local and Circular/ For a Society of Zero
Waste – Brussels Capital Region)

The Plan includes an Introduction about the Resources and the Waste of the Brussels, in comparison with Europe and Belgium. It is, also presented the Vision, focused on circular economy, the reduction of the dependence on materials from other continents, the consideration of urban features of the Region etc. Additionally, the Plan refers the principles that is based on. The fundamental ones are the polluter pays Principle, precautionary principle, principle of prevention, Standstill Principle, Principle of environmental and neighborhood protection and Principle of self-sufficiency and proximity.



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Moreover, the Strategy is presented in details that lead to seven Strategic Objectives. More specifically, Strategic Objective 1 focuses on an effective, modern, enhanced and innovative governance, while Strategic Objective 2 focuses on the transformation of the models of consumption and the encouragement of zero waste.

Strategic Objective 3 focuses on the preparation of the next generations, through pilot actions, education and new methods. Strategic Objective 4 focuses on the transformation of the professional practices and the encouragement of zero waste, including the public sector.

Strategic Objective 5 aspires to transform the sector of construction into circular economy, including its resources and its waste, tackling issues such as the reuse of materials, the adaptation of new practices, the recycling of the waste of construction and demolition, and the management of hazardous waste.



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Strategic Objective 6 aspires to a new economy and the sustainable management of the resources, via the innovative practices, the reparation activities of the equipment that household and professionals use.

Strategic Objective 7 focuses on the programming of the activities professionals of public and private sector in order to respond to the needs of the Region, including the diversification of the collective system and an effective and professional operation.

https://environnement.brussels/sites/default/files/user_files/pgrd_181122_fr.pdf

