Country profile

Overview of national waste prevention programmes in Europe

Slovenia

2021

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European Environment Agency

General information

Name of the country/region	Slovenia
Coverage of the waste prevention programme (national/regional)	National
Type of programme (stand alone or integrated into waste management plan)	Integrated into waste management plan
Title of programme and link to programme	Program ravnanja z odpadki in program preprečevanja odpadkov Republike Slovenije (Republic of Slovenia waste management programme and waste prevention programme) http://www.mop.gov.si/fileadmin/mop.gov.si/pageuploads/zakonodaja/varstvo_okolja/operativni_programi/op_odpadki.pdf
Duration of programme	2016 to present
Language	Slovenian
Development process of the programme/revision	Revision of the 2016 waste management plan is still ongoing. Slovenia's waste prevention programme is in public consultation and the government was expected to adopt it in December 2021 https://www.gov.si/assets/ministrstva/MOP/Javne-objave/Javne-obravnave/OP-odpadki/op_odpadki.pdf
Budget envisaged for implementation of the project	No costs of waste prevention measures are stated in the programme

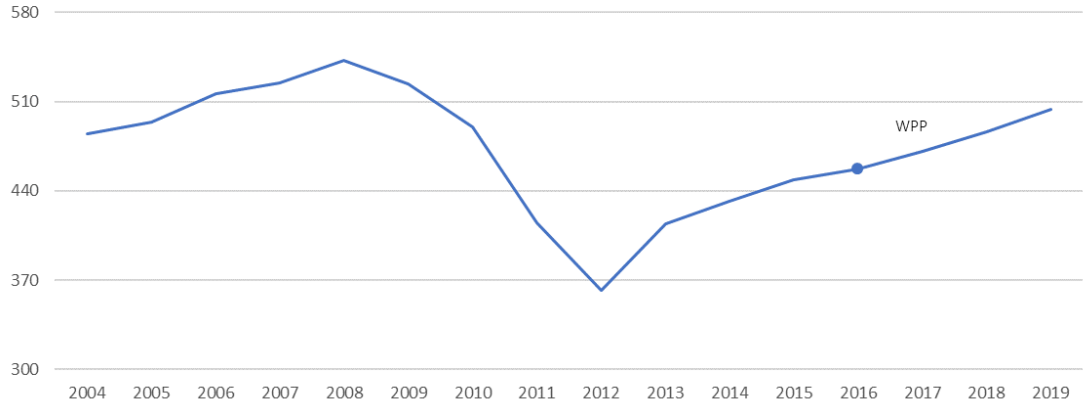
Waste generation

The following figures illustrate the progress towards waste prevention and decoupling of waste generation from economic growth in Slovenia.

Municipal solid waste

- Between 2004 and 2019, generation of municipal solid waste (MSW) per capita was changeable, but it returned to its 2004 level in 2019 (see Figure 1).
- Between 2004 and 2008, waste generation increased steadily before rapidly decreasing in the following years and reaching its lowest level in 2012. This steep decrease can probably be explained by the global financial crisis that developed shortly before this period.
- From 2012 to 2019, an increasing trend can be observed, from 362 kg per capita in 2012 to 504 kg per capita in 2019. This increase may have been influenced by many factors (e.g. population, household expenditure).
- Overall, the average MSW generation of 473 kg per capita is slightly below the European average of 502 kg per capita per year.

Figure 1: Municipal waste generation in Slovenia (kg per capita), 2004-2019

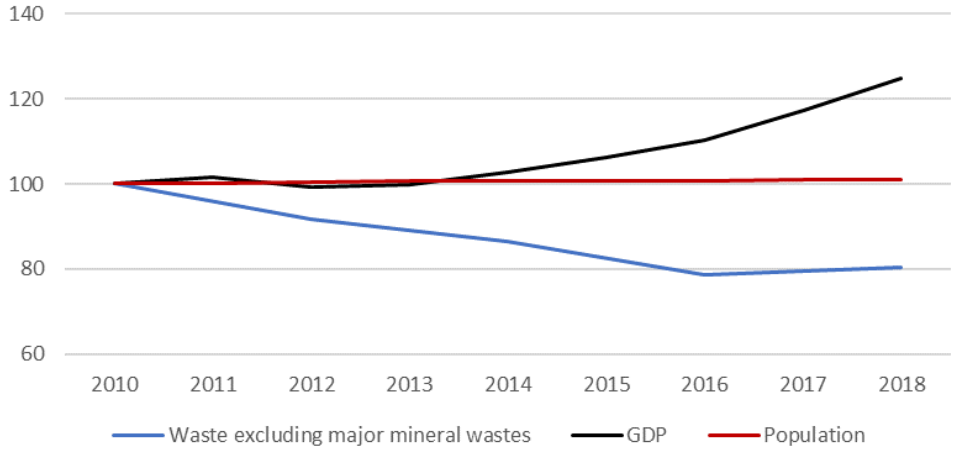


Note: WPP, waste prevention programme.
Source: Eurostat Circular Economy Monitoring Framework.

Total waste

- Slovenia's waste generation decreased continuously from 2010 to 2016, showing a slow increase in the years that followed (see Figure 2).
- GDP remained at a constant level between 2010 and 2013 and has risen steadily since 2014.
- Slovenia seems to have been on track to decouple total waste generation from economic growth since 2010, although a longer time series is needed to confirm this conclusion.
- A link cannot be observed between waste generation and population growth, which remained unchanged.

Figure 2: Growth rate of waste (excluding major mineral waste), GDP and population in Slovenia, 2010-2018 (2010 = 100)



Source: Eurostat.

Waste prevention programme

Objectives and priorities

1.	Waste prevention objectives of the programme: quantitative objectives (waste reduction) and qualitative objectives (reduction of hazardous substances/environmental impacts)	The Slovenian waste prevention programme sets the following specific objectives (p. 236): • reducing material consumption as well as environmental burdens • creating closed material loops • supporting technologies and techniques that use less resources • encouraging a transition to sustainable patterns of production and consumption • stimulating market demand for efficient services by public procurement • reducing the risks to human health and damage to the environment • reusing items, materials or products • reducing the levels of pollutants in products • reducing the amount of emissions released into the air, water and soil throughout the life cycle of products
2.	Sectors covered	• Construction and infrastructure • Manufacturing • Sale, retail, transport • Households • Private service activities, hospitality • Public services
3.	Priority waste types	• Food/organic • Construction and demolition waste • Hazardous waste • Household/municipal waste • Paper • Packaging • Waste electrical and electronic equipment/batteries • Manufacturing waste • Bulky waste • Other (e.g. plastic bags)
4.	Target groups	The Slovenian waste prevention programme is aimed at a broad range of stakeholders, including those in industry, trade and households, and considers all stakeholders — from those involved in production and consumption to those in society, including customers, suppliers, retailers, contractors and employees. The programme explicitly defines target groups for the implementation of food waste prevention measures: food production; industry, trade and crafts; social institutions; large kitchens and catering premises; households; and public administration (p. 251)

Targets, indicators and monitoring

1.	Indicators proposed	Indicators related to prevention of construction waste (p. 255): • total amount of construction waste Indicators related to waste prevention in enterprises (p. 255): • amount of waste • number of companies with Eco-Management and Audit Scheme (EMAS) certification for increased material efficiency • number of closed material loops in companies Indicators related to waste prevention in households (p. 255): • amount of municipal waste generated in households Indicators related to waste prevention in households — plastic bags (p. 255): • amount of plastic bags Indicators related to the prevention of food waste (p. 256): • amount of food waste Indicators related to waste prevention in households (p. 256): • amount of bulky waste Indicators related to reuse — prevention measures for textiles and clothing (p. 256): • amount of textile waste and waste clothing Indicators related to the prevention of waste in the public sector (MOP) (p. 256): • amount of waste from the public sector
2.	Quantitative targets	The Slovenian waste prevention programme refers to existing quantitative targets (e.g. reducing plastic bags at EU level or improving the material efficiency index from 1.07 (2011) to 1.50 (2020)), but does not set additional quantitative targets for the programme itself
3.	Monitoring of programme	The Slovenian waste prevention programme is derived from an assessment of scenarios and the evolution of the generation of major waste streams and their recycling rates. Progress is assessed by monitoring the indicators developed for this programme (see Section 16, p. 238). Monitoring includes the prevention of construction waste, the promotion of good practice for the reuse of building materials and the prevention of the use of hazardous substances in buildings (p. 240). The programme also describes a list of potential approaches to monitoring and evaluating the effectiveness of specific measures, such as those to ensure that the annual level of consumption does not exceed 90 lightweight plastic carrier bags per person by 31 December 2019, or 40 lightweight plastic carrier bags per person by 31 December 2025, and the adoption of legislation on 31 December 2018 to ensure that lightweight plastic carrier bags will be available free of charge at the point of sale of goods or products (p. 245). The monitoring of data on food waste is currently under development. In 2015, Slovenia launched a 14-month pilot project, ‘Food waste’, to monitor data on food

		waste and analyse (i) individual waste streams that may include food waste, (ii) the proportion of food waste mixed with municipal waste and (iii) biodegradable waste, to assess the share of edible and inedible food waste and obtain and evaluate information about home composting (p. 247)
4.	Evaluation of the programme	The programme does not envisage a specific evaluation of the programmes a whole

Prevention measures

Prevention measures implemented in accordance with Article 9 of the Waste Framework Directive

Table 1: Specific waste prevention measures structured in accordance with Article 9 of the Waste Framework Directive

Promote and support sustainable consumption models	• Introduce a consumer awareness programme on reducing the use of lightweight plastic bags, and educational programmes for children
Encourage the design, manufacture and use of products that are resource-efficient, durable (including in terms of life span and absence of planned obsolescence), repairable, reusable and upgradeable	• Enforce techniques and technologies to extend the life span of buildings (e.g. through energy certificates)
Target products containing critical raw materials to prevent those materials becoming waste	
Encourage the reuse of products and the setting up of systems promoting repair and reuse activities, including in particular for electrical and electronic equipment, textiles and furniture, as well as packaging and construction materials and products	• Establish five new value chains for circular material flows by 2023, such as efficiency in the reuse of resources; technological and non-technological solutions and possibilities for improving the use of resources in the context of individual sectors; cost-effectiveness of possible solutions; access to databases and comparison tools at European level supported by the European Resource Efficiency Excellence Centre; counselling and financial support for the implementation of these measures • Further educate responsible stakeholders on waste in enterprises, with a focus on identifying opportunities for prevention and reuse • Analyse material flows in bulky waste by individual fraction • Provide incentives for reuse
Encourage, as appropriate and without prejudice to intellectual property rights, the availability of spare parts, instruction manuals, technical information, or other instruments, equipment or software enabling the repair and reuse of products without compromising their quality and safety	• Provide incentives for dialogue on enhanced cooperation between producers and importers as well as collectors of used clothing
Reduce waste generation in processes related to industrial production, extraction of minerals, manufacturing, construction and demolition, taking into account best available techniques	• Provide web-accessible documents on best practice examples of waste prevention techniques/technologies

Reduce the generation of food waste in primary production, in processing and manufacturing, in retail and other distribution of food, in restaurants and food services as well as in households as a contribution to the UN Sustainable Development Goal to reduce by 50 % per capita global food waste at the retail and consumer levels and to reduce food losses along production and supply chains by 2030	• Establish a methodology for monitoring data on food waste • Analyse individual waste streams that may include food waste • Estimate the proportion of food waste mixed with municipal waste and biowaste, assess the share of edible and inedible food waste, and collect and evaluate information on home composting • Promote the reduction of food waste in households with publications in various formats • Provide an incentive to change the school curriculum so that there is a greater focus on education about the prevention of food waste; publicise information brochures in classes • Support organisations in advertising campaigns, conferences and other projects aimed at raising awareness of preventing food waste as well as presenting and promoting best practice in this field
Encourage food donation and other redistribution for human consumption, prioritising human use over animal feed and reprocessing into non-food products	In Slovenia, the Agriculture Act includes provisions to encourage the donation of food to intermediaries such as humanitarian organisations
Promote the reduction of the content of hazardous substances in materials and products, without prejudice to harmonised legal requirements concerning those materials and products laid down at EU level, and ensure that any supplier of an article as defined in point 33 of Article 3 of Regulation (EC) No. 1907/2006 of the European Parliament and of the Council provides the information pursuant to Article 33(1) of that regulation to the European Chemicals Agency as from 5 January 2021	The Slovenian waste prevention programme includes several measures that focus on hazardous waste prevention and aim to reduce the amount of hazardous substances in products, e.g. in construction waste. For detailed descriptions see section 14
Reduce the generation of waste, in particular waste that is not suitable for preparing for reuse or recycling	
Identify products that are the main sources of littering, notably in natural and marine environments, and take appropriate measures to prevent and reduce litter from such products; where Member States decide to implement this obligation through market restrictions, they should ensure that such restrictions are proportionate and non-discriminatory	• Reduce the consumption of lightweight plastic bags and improve its monitoring • Introduce charges for lightweight plastic bags

Aim to halt the generation of marine litter as a contribution towards the UN Sustainable Development Goal to prevent and significantly reduce marine pollution of all kinds	
Develop and support information campaigns to raise awareness about waste prevention and littering	• Provide information and raise awareness through various media (web-accessible documents, information campaigns), support municipalities and public utilities, strengthen prevention during 'sustainability weeks' or by raising awareness among consumers when shopping, supported by major retail chains

Additional implemented prevention measures, not covered by Article 9 of the Waste Framework Directive)	• Start-up programmes to identify and implement potential waste prevention measures in businesses

Food waste prevention

Food waste generation
In 2020 national food waste (edible and inedible) amounted to 68 kg per capita and 143 570 tonnes in total. Of this amount, 52 % (74 764 tonnes) was generated in households, 30 % (42 6664 tonnes) in restaurants and food service providers, 11 % (15 290 tonnes) in retail and other food distribution and 7 % (10 850 tonnes) in primary production, processing and manufacturing.

Measures to prevent food waste
In Slovenia, measures to reduce food loss and waste are included in the strategy for the entire food supply chain, developed by the Ministry of Agriculture, Forestry and Food (not yet adopted). The strategy will be accompanied by an action plan that lays down the goals, timetables and responsible authorities, and includes the following activities:

- improving the efficiency of sustainable production and processing, and of distribution, marketing and sales;
- information, awareness raising and cooperation;
- education and training;
- stakeholder cooperation;
- legislative measures.

For example, training sessions are offered to public and private sector officers on strategies to reduce the 'food print' (the amount of wasted food) through the EAT Circular project, sponsored by the European Institute of Innovation and Technology — Climate Knowledge and Innovation Community (KIC). Topics covered by the training sessions include policy, best practice, processes, business models, and technologies to measure food waste/surplus, 'divert' it and avoid disposal.

Furthermore, the non-governmental organisation Ecologists Without Borders (Ekologi brez meja) carried out a project titled 'Food waste prevention in the public sector and households — Do not throw away food!', co-financed by the Ministry of the Environment and Spatial Planning. The main focus of the project was to prevent food waste in hospitals and retirement homes, and its results included a toolkit for monitoring food waste, the awareness-raising campaign 'Just eat it!' and workshops for intergenerational integration (where the elderly taught young people about good practices with food).

A working group for food donation, established in 2013, aims to solve the issues that humanitarian organisations face when redistributing food. The Agriculture Act includes provisions for helping

humanitarian organisations that distribute donated food meet the cost of technical equipment, with contributions from the Ministry of Agriculture, Forestry and Food. Within the framework of tax legislation (the Act that defines the rules on implementing VAT), the price of donated food is equal to zero if the total value of donated goods does not exceed 2 % of the donor's revenue.

'Reducing the amount of disposed food waste' is a part of the care4climate project: https://www.care4climate.si/en/project/project-areas-and-activities/food-waste

For a more comprehensive mapping of country efforts to prevent food waste, please visit the European Commission's Food Loss and Waste Prevention Hub.

Reuse of products

Data
In Slovenia, there are 16 waste preparation plants for reuse with a total capacity (permitted annual amount) of 8 987 tonnes per year.

With regard to the Commission Implementing Decision (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2021.010.01.0001.01.ENG&toc=OJ%3AL%3A2021%3A010%3ATOC), this section will be updated by the EEA accordingly.

Measures to support reuse
According to Chapter 10.2.5 of Slovenia's waste management programme, there are several reuse measures to prevent bulky waste:

- analysis of the material flow of bulky waste by individual fractions;
- incentives for reuse;
- raising awareness of reuse through education.

There are also reuse measures to prevent textile and clothing waste, e.g.:

- raising awareness of and promoting the reuse of clothing;
- incentives for dialogue on enhanced cooperation between manufacturers and importers and collectors;
- promoting used clothes retailers;
- raising awareness of reuse through education for schoolchildren and adults.

In addition, there are 10 plants preparing waste for reuse with a total capacity of 4 957 tonnes of waste per year in Slovenia. The following waste types are prepared for reuse:

- cartridges (printer toner cartridges);
- wooden packaging (pallets);
- clothing, footwear and textiles;
- bulky waste.

Waste cartridges are disassembled, cleaned and refilled. The damaged parts of waste wooden pallets are replaced so that they are reusable as packaging. Waste footwear, clothing and textiles are sorted by type and quality. Clothing and footwear of better quality are directed to second-hand shops and inferior quality textiles are cut into cleaning cloths for industrial use. Bulky waste is dominated by wooden furniture, which is inspected and, if appropriate, repaired and painted for reuse, with the remaining bulky waste transformed into new usable items.

Best practice examples

Slovenian network — Centers of Reuse CPU ([1])
Reuse Centre Ltd was the first social enterprise in Slovenia, established in 2012 with the main aim of solving environmental and social problems. Reuse Centre developed a new model for a socially responsible business in Slovenia, bringing together municipalities and public waste management companies, enabling the development of new green jobs and promoting resource savings.

The USE-REUSE network runs centres across the country that take in unwanted but viable products before selling them on as second-hand goods. It is also a member of the international RREUSE network.

Reuse centres within the Slovenian network:

- carry out environmental management, implementing principles of reuse and recycling;
- focus on developing awareness of environmental services;
- provide work for hard-to-employ and disadvantaged people;
- process, repair and innovatively renovate particular types of still-useful products (upcycling);
- sell second-hand goods;
- work on increasing awareness about waste generation, reusing old things and sustainable consumption;
- encourage and promote the reuse of upcycled products;
- train and employ people from vulnerable groups with the purpose of returning them to the labour market in a socially responsible way.

Reuse Centre has an important effect on the general public in raising environmental awareness and highlighting that the planet has limited resources, and that we must do our best to conserve, recycle and reuse whenever possible.

Zero Waste Hotel initiative ([2])
Hotel Ribno is the first zero waste hotel in Slovenia. The hotel aims to provide high-quality services for guests to enjoy with a minimal impact on nature. The hotel is planning to sort 90 % of all collected waste, reduce annual waste by 30 % and use 30 % less water and energy. It will do this by:

- sorting waste for collection;
- reusing towels and bedlinen;
- using refillable soap or shampoo dispensers as well as reusable containers for sugar, jam, honey and other food in the hotel's restaurant and kitchen;
- working with local suppliers.

In May 2018, Hotel Ribno was awarded the Zero Waste Hotel certification. The ceremony marked the completion of an important stage in the series of measures and changes that the hotel had adopted. Waste measurements showed that the total volume of waste decreased considerably, as did the share of mixed waste, which now stands at 8 % of total waste. The change process involved the hotel management and all the staff, who actively searched for solutions and opportunities for further improvement.

Flea market in Ljubljana: Breg Embankment Antique Market ([3])
Traditionally held on Sundays in the old city centre of Ljubljana, Breg Embankment Antique Market, showcases various objects from the recent and distant past, many of which are still fit for use, such as antiques, art pieces, furniture, decorative items and kitchenware, and all kinds of bric-a-brac of collectible or simply nostalgic value.

([1]) https://www.interregeurope.eu/policylearning/good-practices/item/313/slovenian-network-centers-of-reuse-cpu/
([2]) https://www.bled.si/en/inspiration/blog/20210204101131 57/zero-waste-tourism-in-bled/
([3]) https://www.fleamapket.com/listing/breg-embankment-antique-market/

Links to the circular economy

Waste prevention is an integral part of the comprehensive transformation towards a circular economy. It reduces not only the input of natural resources into the economy but also the efforts required to collect and recycle waste.

Approaches to improving circularity are often linked to successful waste prevention. The following table shows which circular strategies are explicitly integrated into Slovenia's waste prevention programme.

Topic	Addressed in the programme	Comments and examples
Eco-design	Yes	The construction sector
Repair, refurbishment and remanufacture	Yes	Bulky waste and textiles
Recycling	No	Not explicitly mentioned
Economic incentives and finance	Yes	Charges for lightweight plastic bags
Circular business models	Yes	Start-up programmes to identify and implement potential waste prevention in businesses
Eco-innovation	No	
Governance, skills and knowledge	Yes	Providing an incentive to change the school curriculum so that there is a greater focus on education about preventing food waste