Overview of national waste prevention programmes in Europe







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European Environment Agency

General information

Name of the country/region	Czechia
Coverage of the waste prevention programme (national/regional)	National
Type of programme (stand alone or integrated into waste management plan)	Stand-alone programme
Title of programme and link to programme	Program předcházení vzniku odpadů České Republiky (Czech Republic's waste prevention programme) Czech version: https://www.mzp.cz/c1257458002f0dc7/cz/predc zeni_vzniku_odpadu_navrh/\$file/oodp-ppvo- 2014_10_27.pdf English version: https://www.mzp.cz/C1257458002F0DC7/cz/predc hazeni_vzniku_odpadu_navrh/\$FILE/OO- EN_WPP_Czech-20150407.pdf
Duration of programme	2014 onwards. (The waste prevention programme will continue as part of the updated waste management plan. The updated waste management plan will be approved by the Czech government in the first quarter of 2022)
Language	Czech
Development process of the programme/revision	The waste management flow streams perceived to exist, and requiring analysis and monitoring in greater detail under the programme, were specifie in a meeting attended by the Ministry of the Environment (MoE), Ministry of Industry and Trade, the Czech Chamber of Commerce, the Confederation of Industry of the Czech Republic and the Institute for Sustainable Urban and Municipal Development, held on 26 October 2011 The next negotiations on the progress of preparing the programme took place at the MoE on 16 November 2012, attended by selected individuals from relevant ministries, professional associations, and representatives from the busines community, research and non-governmental organisations (around 50 participants); the manua was introduced, the waste streams to be monitore were specified, and the attendees were requested send in their respective documentation and data A follow-up technical document was commissioned, to be developed by the Waste

	Management Research Institute. The technical
	document was delivered to the MoE in July 2013.
	Subsequently, the MoE's own document, called
	Czech Republic's waste prevention programme,
	was developed for further consultations. The
	document passed an internal round of comments
	and, following approval by a meeting of the MoE
	executive, also an inter-sectoral comments process
	The draft programme was made public on the
	Ministry's website on 12 December 2013 (source:
	Czech waste prevention programme (WPP))
Budget envisaged for implementation of the	No specific budget for the implementation of the
project	programme is included in the programme
project	programme is included in the programme

Waste generation

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

Municipal solid waste

- Starting at a relatively low level of 279 kg per capita in 2004, municipal solid waste (MSW) generation per capita increased slowly for the next decade (see Figure 1).
- From 2016 on, generation of MSW generation per capita jumped rapidly (due to a change in the calculation methodology in Czechia) and reached 489 kg by 2017 and continued increasing steadily, reaching a maximum of 500 kg per capita in 2019.
- The Czech WPP came into force in 2014, but, as MSW generation is influenced by many factors (e.g. population, household expenditure), the prevention measures did not lead to a decrease in MSW levels.



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

Source: Eurostat Circular Economy Monitoring Framework.

Total waste

• Overall, total waste generation in Czechia (excluding major mineral wastes) shows an increasing trend between 2010 and 2018. A slight decrease occurred between 2012 and 2014, but waste generation continued to increase in the years that followed.

- A similar situation is observed for economic growth (GDP), which decreased slightly between 2011 and 2014, but has risen steadily since.
- Although both indicators show a similar trend during the observed time period, from 2016 the growth in GDP is more rapid than waste generation. Although a longer time series is needed to confirm any conclusions, these increasing trends since 2014 indicate that significant decoupling of waste generation and economic growth is not yet happening in Czechia.
- The Czech population has been almost constant over this period and does not seem to have influenced GDP and waste generation levels.

Figure 2: Growth rate of waste (excluding major mineral wastes), GDP and population in Czechia, 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 programme describes several objectives referring to the decoupling of waste generation from economic growth, but i does not mention any specific means of achieving this It contains a variety of measures that are aimed at a quantitative prevention of waste and divides them into four main categories: information support, education and awareness raisin regulation and planning methodological support and voluntary tools research, experimental development and innovation (Section 14)
		Measures specifically referring to a qualitative prevention of waste include providing information and educational suppor on waste prevention at all levels of state administration, developing a guide on preventing waste in the construction industry, and analysing waste prevention in the food sector, including catering facilities, and the possibility of reducing the weight of food packaging
2.	Sectors covered	 Mining, raw material processing Construction and infrastructure Manufacturing Households Private service activities, hospitality Public services Charities and non-profit organisations Public sector
3.	Priority waste types	 Food/bio-waste Construction and demolition waste Hazardous waste Household/municipal waste Paper Packaging Waste electrical and electronic equipment/batteries Manufacturing waste Other (e.g. textiles, plastics other than packaging, animal by-products from the processing of meat and fish)
4.	Target groups	Target groups are not specifically mentioned; however, the primary target groups addressed by the measures are public consumers, businesses and manufacturers, the public sector and local authorities

Targets, indicators and monitoring

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1. Indicators proposed	 The following main indicators are mentioned (pp. 84-85): the generation of mixed municipal waste in Czechia, in tonnes/year, kg/capita/year the generation of separately collected municipal waste (four component collection — glass, paper, plastic, metals), in tonnes/year the generation of biodegradable waste and biodegradable municipal waste, in tonnes/year the amount of materials composted (home composting), in tonnes/year the amount of materials composted (community composting), in tonnes/year the amount of textiles, footwear and selected reusable products collected, in tonnes/year the amount of food handed over for further use, in tonnes/year the amount of secondary raw materials used in production, in tonnes/year
	• the ratio of total waste production to domestic material
	input
	Additional indicators are as follows:
	• the number of analytical materials, assessment tools and
	plans closely associated with the programmethe number of visits to the programme's website
	 the number of visits to the programme's website the number of updates to the programme's website
	 the amount of information and educational
	methodologies, publications and materials in the area of waste prevention
	• the number of licences related to the national ecolabelling
	 programme the number of directives related to the national
	ecolabelling programme
	• the number of projects implemented in programmes of
	research, experimental development and innovation, with a focus on low-waste technologies, saving raw materials,
	energy saving and waste preventionthe number of workshops, training courses and
	educational programmes on the issue of waste prevention
	• the number of service centres and networks for extending the life and increasing the reuse of products and components, as well as the number of products that went
	through service centres and were subsequently reused
	• the number of non-profit organisations developing activities for the reuse of products and activities related to
	waste prevention the number of new logislative instruments
	 the number of new legislative instruments the number of research programmes involving the issue of
	saving raw materials, energy and waste prevention
	• the number of voluntary agreements in relation to the
	prevention of waste

		 the number of public budget contracts taking into account environmental aspects, with a focus on waste prevention the number of environmental management systems for businesses
2.	Quantitative targets	The waste prevention programme does not include specific quantitative targets
3.	Monitoring of programme	The methodology for carrying out a comprehensive evaluation of the programme to monitor and assess the progress made was developed in 2016
4.	Evaluation of the programme	An evaluation of the programme beyond the requirements of the Waste Framework Directive is not envisaged in the programme. The goals and measures set are continuously evaluated. The continuous evaluation report was prepared in March 2017. The second continuous evaluation report for the period 2017-2019 was prepared in March 2020

Prevention measures

Prevention measures	Most of the measures stipulated in the Czech waste prevention
implemented in accordance with	programme are in line with the requirements of Article 9 and focus
Article 9 of the Waste	on activities supporting and promoting reduction of waste in several
Framework Directive	sectors, including through effective dissemination of information
	and awareness programmes

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

Promote and support sustainable consumption models	 Provide technical support to ensure the dissemination of information and awareness programmes to progressively increase the number of products collected for further use, such as textiles, clothing, footwear, toys, books, furniture, carpets, tools and other reusable products Publicly promote non-governmental organisations' and similar bodies' activities to retroactively withdraw products for reuse and ensure the creation of interactive, publicly accessible networks (maps) for these organisations and centres
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	 Ensure the establishment of an expert study on the possibilities of financial incentives for firms producing secondary raw materials and related innovative technology, with the aim of increasing the use of secondary raw materials in production. Create an interdepartmental plan for the increased use of secondary raw materials in production Support programmes of research, experimental development and innovation in the use of secondary raw materials in production processes, the introduction of low-waste technologies and technology-saving feedstock, and the prevention of waste, including consideration of eco-design and life cycle assessment
Target products containing critical raw materials to prevent those materials becoming waste	• Support programmes of research, experimental development and innovation in the field of waste prevention to extend the life of products, reduce the amount of hazardous substances contained in them (in relation to the Packaging and Packaging Waste Directive), electrical and electronic equipment, batteries and accumulators, and cars, and reduce material consumption in production

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	 Develop technical analysis for the possibility of establishing new legislative requirements and objectives for waste prevention in Czechia regarding the development of EU legislation, including determining the legislative requirements for the operation of facilities for the reuse of products at the end of their life span, and optimising existing legislative requirements for catering equipment and using food in order to reduce food waste Develop a methodology for the qualitative and quantitative evaluation of textiles and clothing production, material streams and textile waste to determine the current status, obtain primary data and monitor the effectiveness of prevention measures in the future
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 technical support to ensure the dissemination of information and awareness programmes to progressively increase the amount of electrical and electronic equipment collected and reduce the waste of these products by: ensuring the development and analysis necessary to support the creation of an information network of service centres, including the preparation of rules for the operation of service centres and a system of certification ensuring the development and dissemination of handbooks for citizens on optimising the purchase and use of electrical and electronic equipment in relation to the potential waste generated
Reduce waste generation in processes related to industrial production, extraction of minerals, manufacturing, construction and demolition, taking into account best available techniques	 Undertake a professional study on various construction materials from demolished buildings used for the original purpose or for other purposes while maintaining the functionality of the material Support programmes of research, experimental development and innovation in sustainable construction and renovation of buildings, to reduce the use of hazardous substances in construction and construction materials, and prevent construction and demolition waste
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	 Provide technical support to ensure the dissemination of information and awareness programmes aimed at reducing food waste by: developing and disseminating handbooks for citizens about optimising the purchase of food and its subsequent storage to reduce potential waste providing a manual for owners and operators of restaurants, hotels and other

Encourage food donation and other	 catering facilities that focuses on preventing food waste Create a guide on the balance between composting material at home and composting in the community to evaluate the effectiveness of measures to promote a reduction in food waste generation Ensure that implementing issues in food waste prevention programmes feature in departmental studies and research programmes. Support programmes of research, experimental development and innovation in the field of food waste prevention Provide an analysis of waste prevention in the field of food waste prevention.
redistribution for human consumption, prioritising human use over animal feed and reprocessing into non-food products	food sector, including catering
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	• Analyse the current occurrence of hazardous substances and materials in the construction industry with the aim of reducing hazardous substances in construction and demolition waste, and proposing suitable alternatives without compromising the properties of building and construction materials and components
Reduce the generation of waste, in particular waste that is not suitable for preparing for reuse or recycling	• Ensure the development of a guide on the prevention of waste in buildings for building materials producers, designers, investors, construction companies and citizens, and publish information on hazardous substances and their negative impact on human and ecosystem health
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	
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	• Provide an analysis of the possibilities of reducing the weight of food packaging in terms of possible legislative changes
Develop and support information campaigns to raise awareness about waste prevention and littering	• Develop and ensure continuous operation of a freely accessible information base on waste prevention at all levels. Develop and promote a free guide for citizens on preventing waste (with

	 a focus on municipal waste and its individual components) Provide technical support to ensure the dissemination of information and awareness programmes to progressively increase the amount of electrical and electronic equipment collected and reduce the waste of these products by: ensuring the development and analysis necessary to support the creation of an information network of service centres, including the preparation of rules for the operation of service centres and a system of certification ensuring the development and dissemination of handbooks for citizens about optimising the purchase and use of electrical and electronic equipment in relation to the potential waste generated In the context of environmental education programmes, education and public awareness, ensure the development of learning materials on the topic of waste prevention and their subsequent practical inclusion in the curriculum to raise awareness about the issue In the framework of collective systems, ensure that extension activities are carried out by all stakeholders and exchange knowledge on the issue of waste prevention, particularly through information campaigns aimed at raising public awareness
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Additional implemented prevention measures, not covered by Article 9 of the Waste Framework Directive	 Measures targeting products and services that have a reduced environmental impact or targeting environmental management systems: Promote sound environmental labelling and products with a low impact on the environment, with the aim of gradually increasing the number of directives and licences in the national ecolabelling programme Promote and provide ongoing implementation of credible environmental management systems for businesses. Provide sufficient information support for various management systems to ensure the efficiency of Czechia's waste prevention programme
	 Measure focusing on increasing biodegradable waste composting: Provide technical support and conduct public awareness campaigns on domestic, community and municipal composting of biodegradable waste, taking the regional waste management plans into account when appropriate
	Measure supporting green public procurement:

•	Promote the consideration of environmental aspects, with a focus on waste prevention in public procurement, for example
	 by: considering requirements for environmental management systems, environmental labelling of products and services and preference for reusable containers
	 considering and prioritising offers documenting the use of building materials that comply with environmental aspects, with a focus on waste prevention (environmental management systems, voluntary agreements, environmental labelling)
	 considering and prioritising supply companies that document their activities using secondary raw materials directly related to a specific contract

Food waste prevention

Food waste generation

According to a *Guide on preventing food waste in the private catering sector*, published in 2017 by the MoE, the average annual food waste was estimated to be 829 851 tonnes, which is equivalent to 80 kg of food wasted per capita annually. The largest share of losses occurs in the production process itself, accounting for 44 % (362 000 tonnes), followed by households at 31 % (241 000 tonnes), catering services at 15 % (123 000 tonnes) and retailers at 11 % (91 000 tonnes).

An analysis of food waste in Czech households — a contribution to the international reporting effort, published in April 2021, was a survey comprising over 400 Czech households based on the kitchen diaries method, which showed that, on average, the households surveyed discarded 2.6 kg (1.1 kg per capita) weekly. After extrapolation, total food waste was estimated to be 57.1 kg per capita per year. According to another analysis carried out by Mendel University

(<u>http://neplytvejpotravinami.mendelu.cz/</u>) the average amount of food wasted per capita per year is 37.4 kg.

Measures to prevent food waste

Some of the measures set out in Czechia's current WPP, effective from 2014, are dedicated to the issue of decreasing the amount of food waste generated, and aim to:

- provide technical support for the dissemination of information and awareness-raising programmes focused on reducing the amount of food waste produced (comprising a manual for citizens on optimising purchases of food and their storage, and a manual for the catering sector on preventing food waste);
- acquire and improve primary data and monitor the effectiveness of the preventive measures, based on developing a methodology for performing qualitative and quantitative evaluations of the food waste streams and also on preparing an expert study of these waste streams;
- ensure that the issues of food waste prevention become anchored and implemented in sectoral research projects and research programmes and provide support to them;
- provide an analysis of waste prevention in the food sector, including catering, and provide an analysis of the possibilities of reducing the weight of food packaging for possible legislative changes.

In 2018, an amendment to the Czech Food Act came into force, requiring all supermarkets over 400 square metres to donate unsold but still consumable food to charities. Based on this regulation, Czech retailers donate food with deformed packaging, incorrect labelling or expired 'best before' dates and which do not pose a threat to human health.

Food banks are an important and well-functioning measure contributing to reducing food waste and improving the use of food that would otherwise be wasted (<u>https://www.potravinovebanky.cz/</u>). They are grouped into the Czech Food Bank Federation, a member organisation of the European Food Bank Federation. The food banks collect food free of charge, and store and allocate it to humanitarian or charity organisations, which in turn distribute the food to people in need. Currently, there are 15 food banks sourcing food mainly from farm producers, food manufacturers, food chains, retailers or food collections and they have over one thousand recipient organisations.

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

Reuse of products

Data

With regard to the Commission Implementing Decision (<u>https://eur-lex.europa.eu/legal-</u> <u>content/EN/TXT/?uri=uriserv%3AOJ.L_.2021.010.01.0001.01.ENG&toc=OJ%3AL%3A2021%3A01</u> <u>0%3ATOC</u>), this section will be updated by the EEA accordingly.

Measures to support reuse

The current WPP supports the reuse of products, such as clothes, textiles, footwear, toys, books, magazines, furniture, carpets, tools and other reusable products by various means, e.g. by providing technical support for disseminating information and for awareness-raising programmes aiming to gradually increase the collection volumes of products suitable for reuse. With regard to repairing and reusing electrical and electronic equipment for its original purpose, the WPP focuses on promoting and supporting the establishment of an information network of service centres. The measures also aim to analyse the possibilities of adapting legislative requirements and set new objectives for waste prevention in Czechia, including in the operation of facilities for the reuse of end-of-life products.

In practice, a range of opportunities provide for the reuse of second-hand products. Bazaars, operated as permanent outlet shops, have a long tradition in Czechia. Similarly, so-called flea markets offer a rich variety of products for sale, purchase or swaps, e.g. furniture, domestic appliances, automobiles, and electrical and electronic equipment. Second-hand shops and outlets specialising in clothing are also common and offer mainly worn clothes and imported footwear.

In recent years, bazaars, swaps and informal markets focusing on children's clothing and outfits have become very popular, extending the life span of products that are often used for only several months by one child. Many of these activities are now being held in maternity and children's centres. Many internet portals also serve as reliable selling, swapping or donating connection points for all kinds of second-hand items (especially electronics).

There has also been an increase in the number of reuse centres and reuse points established in Czechia in recent years. Many cities and municipalities have established their own reuse centres.

Best practice examples

Prague, don't throw it away!

'Don't throw it away' (praho.nevyhazujto.cz) is a portal where Prague citizens can donate things they no longer need and that could still be useful to someone else. The donor has to be registered, provide a description, photo, the category and condition of the item and its location. Items must be offered for free.

In operation for over 10 years, the portal has permanent users and has saved over 65 000 items from being thrown away. The portal's creators are constantly looking for ways to spread the idea of 'no dumping' to other people, so they also started cooperating with other Czech cities and making portals

for them (e.g. for Ostrava: <u>ostravo.nevyhazujto.cz</u>), as well as for private companies for which they create closed corporate 'Don't throw it away' portals for their employees. Moreover, they help to set up and manage so-called reuse points at the civic amenity sites in Prague, where citizens can directly bring unwanted things instead of uploading them to the portal. The reuse point operator accepts the donated items, takes photos and places them on the web portal. These items are initially offered to the social departments of the city or other selected entities and subsequently to all users of <u>www.praho.nevyhazujto.cz</u>

Opravárna

Opravárna (<u>www.opravarna.cz</u>) is the largest repair network in Czechia, allowing citizens to choose between professional repair services and those who repair items as a hobby.

SWAP Prague initiative

The initiative ran a 1-week SWAP (¹) at its first sustainable mall event. The swap was brought 16 288 kg of textiles, books and household goods, and ran in Prague Market Square from 13 September to 19 September 2021. The goal of the SWAP Prague initiative is to prolong the life of things (clothes, books, household items), keep them in circulation for longer and divert them from waste streams for as long as possible. At the same time, the aim is to educate the public in an interactive way and change shopping habits. In 2022, it is also going out to the regions, helping municipalities and local initiatives to reduce unsorted waste, thus saving personal and public resources and improving the quality of life.

Cyrkl

Cyrkl (https://www.cyrkl.com/en/) is an international technology and consulting company specialising in circular waste management. Cyrkl helps companies turn waste into resources and thus into revenue with Europe's largest digital marketplace for waste and residuals.

Textile waste collection in Czechia

The infrastructure for collecting used textiles has improved significantly over the past few years. One of the oldest organisations in the field of collecting and redistributing used textiles is <u>Diakonie</u> <u>Broumov (https://diakoniebroumov.org</u>). It has its own sorting plant and a plant for processing textiles no longer suitable for wearing into cleaning cloths.

Another successful collector of used textiles is <u>Potex (https://www.recyklujemetextil.cz)</u>, <u>which has</u> a network of several hundred containers located in the Czech capital and its neighbourhood.

<u>Dimatex (https://www.dimatex.cz</u>) is also an important player and its main activities are textile collection and redistribution for reuse (it has over 2 000 containers in Czechia), textile recycling (Retextil is a composite material made of recycled textiles and LDPE, suitable also as an alternative to wood) and producing cleaning cloths.

<u>Aided z.s. (https://www.aided.cz</u>) is an independent, charitable, ecological association founded to help people in need. Thanks to the donated used textiles, blankets, bed linen, towels, shoes and toys, the association serves people in areas affected by natural disasters, in both Czechia and abroad.

The Czech Red Cross and the Salvation Army are also active in the redistribution of used clothing through the Textileco project. In addition to the standard textile collection containers, <u>Textileco a.s.</u> (<u>https://www.textileco.cz/en/</u>) operates mobile containers for collecting both textiles and electrical appliances. Most of these collection companies are associated with the <u>ARETEX</u> association (Association of Recycling of Used Textiles: https://aretex.cz/cs). Collection of textiles is also provided by companies providing comprehensive waste management services, such as SAKO Brno, a.s. or FCC Czech Republic, s.r.o.

⁽¹⁾ https://www.facebook.com/events/s/tydenni-swap-prvni-udrzitelny-/303039344297372/

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 the Czech waste prevention programme.

Торіс	Addressed in the programme	Comments and examples
Eco-design	Yes	A measure to foster programmes of research, experimental development and innovation in the area of introducing low-waste technologies and technologies that save input raw materials, as well as those involved in waste prevention including eco-design and life cycle assessments
Repair, refurbishment and remanufacture	Yes	Supporting the establishment of an information network of service centres for the repair and reuse of electrical and electronic equipment for its original purpose
Recycling	No	No measures aimed specifically at recycling are present in the Czech WPP
Economic incentives and finance	Yes	Tax incentives for retailers in the case of foodstuffs near their use-by date
Circular business models	Yes	Extended producer responsibility schemes, which have been successfully applied to packaging, end-of-life vehicles, waste electrical and electronic equipment, batteries and accumulators, and tyres
Eco-innovation	Yes	The eco-innovation action plan
Governance, skills and knowledge	Yes	Cooperation of the MoE with non- governmental, non-profit organisations on various projects on improving waste management, including waste prevention/reuse aspects