

Circular economy country profile 2024 – Czechia



Cover design: EEA
Cover image © Peder Jensen
Layout: ETC CE

Version: First

Publication Date

EEA activity Circular economy and resource use

Legal notice

Preparation of this report has been co-funded by the European Environment Agency as part of a grant with the European Topic Centre on Circular economy and resource use (ETC CE) and expresses the views of the authors. The contents of this publication do not necessarily reflect the position or opinion of the European Commission or other institutions of the European Union. Neither the European Environment Agency nor the European Topic Centre on Circular economy and resource use is liable for any consequence stemming from the reuse of the information contained in this publication.

ETC CE coordinator: Vlaamse Instelling voor Technologisch Onderzoek (VITO)

ETC CE partners: Banson Editorial and Communications Ltd, česká informační agentura životního prostředí (CENIA), Collaborating Centre on Sustainable Consumption and Production (CSCP), Istituto Di Ricerca Sulla Crescita Economica Sostenibile (IRCrES), Istituto Superiore per la Protezione e la Ricerca Ambientale (ISPRA), IVL Swedish Environmental Research Institute, PlanMiljø, Università Degli Studi Di Ferrara (SEEDS), German Environment Agency (UBA), Teknologian Tutkimuskeskus VTT oy, Wuppertal Institut für Klima, Umwelt, Energie gGmbH, World Resources Forum Association.

Copyright notice

© European Topic Centre on Circular economy and resource use, 2024
Reproduction is authorized provided the source is acknowledged. [Creative Commons Attribution 4.0 (International)]

More information on the European Union is available on the Internet (<http://europa.eu>).

European Topic Centre on
Circular economy and resource use
<https://www.eionet.europa.eu/etcs/etc-ce>

Contents

Introduction.....	2
Czechia – facts and figures	4
Existing policy framework	8
Dedicated national and/or regional and/or local strategy, roadmap or action plan for circular economy	8
Circular economy policy elements included in other policies.....	11
Monitoring and targets	11
Assessment of circular economy performance.....	11
Circular economy monitoring frameworks and their indicators beyond the ones from Eurostat.....	15
Circular economy targets	16
Innovative approaches and good practices.....	16
Examples of public policy initiatives (national, regional or local)	16
Examples of private policy initiatives (sectoral)	18
The way forward.....	21
Identifying and addressing barriers and challenges.....	21
Future policy plans	21

Introduction

The European Commission requested the EEA to produce EU country profiles that offer an updated view of the following elements:

- what circular economy policies are being implemented at a national level with a particular focus on elements that go beyond EU mandatory elements, and
- what are best practices with a focus on policy innovation.

With the EU Circular Economy Action Plan (CEAP 2020) "the Commission [...] encourages Member States to adopt or update their national circular economy strategies, plans and measures in the light of its ambition".

These country profiles originate in the work leading to the EEA More from less report (2016)¹, that presented an overview of approaches to material resource efficiency and to circular economy in thirty-two European countries. The More from Less report was followed by the 2019 EEA Report 'Resource efficiency and the circular economy in Europe 2019 – even more from less: An overview of the policies, approaches and targets of 32 European countries'².

It presented an updated and extended assessment of approaches and identified trends, similarities and new directions taken by countries in the connected policy areas of resource efficiency and the circular economy.

These reports, comprising a compilation of extensive survey responses from countries, were accompanied by 32 country profiles.

In the second quarter of 2022 a new survey with questions and guidelines was launched. Based on information reported by the Eionet network, in particular, the Eionet Group on Circular Economy and Resource Use, and after review and editing by the European Topic Centre on Circular economy and resource use (ETC CE), the 30 2022 CE country profiles³ were published alongside the EEA report 'Circular Economy policy innovation and good practice in Member States'⁴ (2022).

These 2024 CE country profiles are an update of the 2022 ones and based on the responses of 29 countries to the survey questions and guidelines that were launched in March 2024. The information in the countries' responses was again reviewed and edited by the European Topic Centre on Circular economy and resource use. A selection of Eurostat data was made to further complement these country profiles.

The main objectives of these assessments and its updates are to: • stimulate exchange of information and share good practice examples among country experts; • support policymakers in Eionet countries, the European institutions and international organisations by providing an updated catalogue of circular economy actions being undertaken in European countries.

This circular economy country profile is based on information reported by the Eionet network and, in particular, the Eionet Group members on Resource Efficiency and Circular Economy in the second quarter of 2024. Proposals for the further development or amendment of policies represent the view of the reporting country. For Czechia, all input was provided by the Ministry of the Environment of Czechia. The information was reviewed and edited by the European Topic Centre on Circular economy and resource use. A selection of Eurostat data was made to further complement this country profile.

¹ [More from less – material resource efficiency in Europe – European Environment Agency \(europa.eu\)](https://europea.europa.eu/en/press-communications/2016/06/2016-06-23-more-from-less)

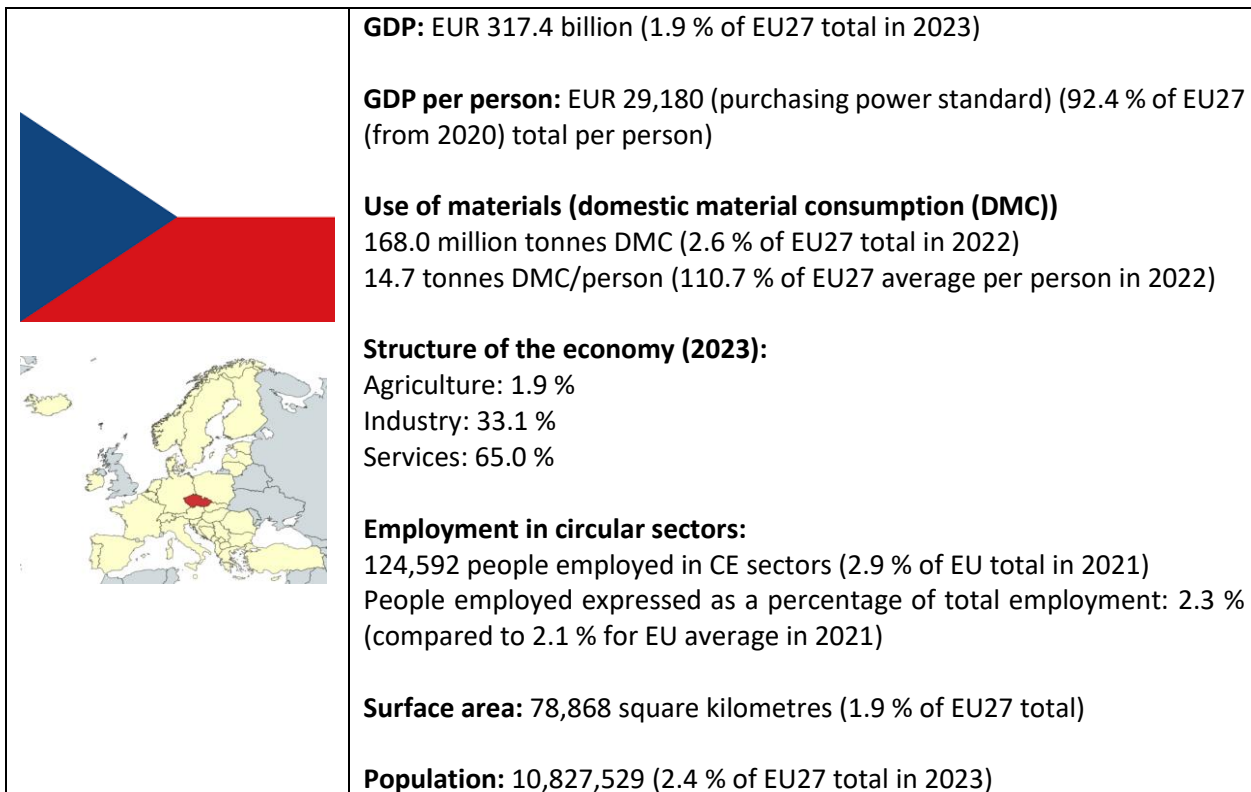
² [Resource efficiency and the circular economy in Europe 2019 – European Environment Agency \(europa.eu\)](https://europea.europa.eu/en/press-communications/2019/06/2019-06-20-resource-efficiency)

³ [Country profiles on Circular Economy in Europe – Eionet Portal \(europa.eu\)](https://europea.europa.eu/en/press-communications/2022/06/2022-06-23-country-profiles)

⁴ [draft-report-for-dg-env_final.pdf \(europa.eu\)](https://europea.europa.eu/en/press-communications/2022/06/2022-06-23-draft-report)

The information is current as of September 2024, when members of Eionet verified the content of this profile.

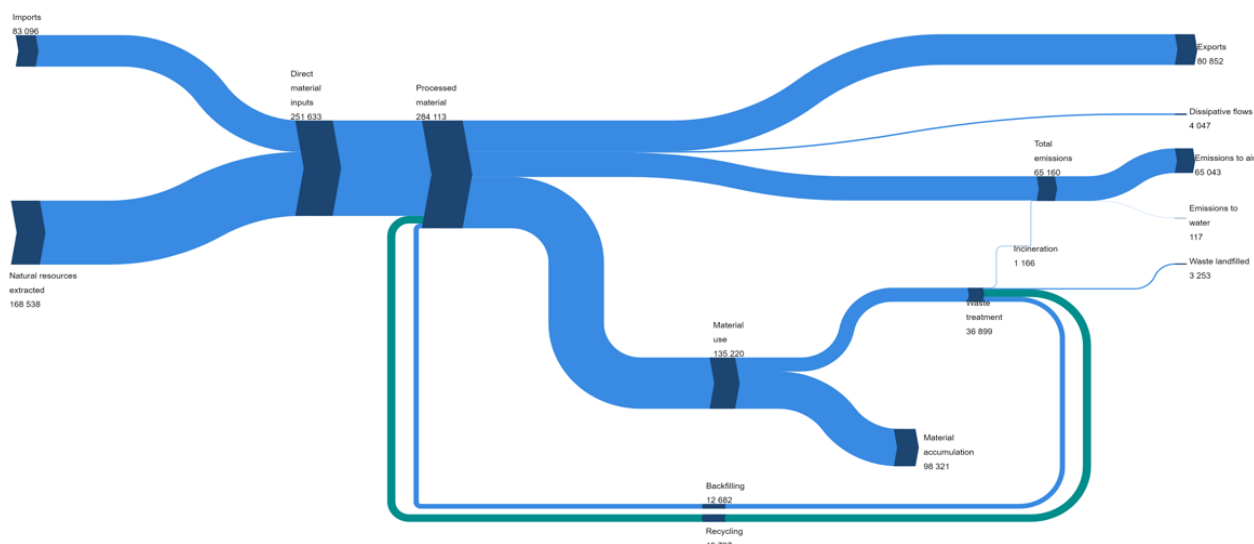
Czechia – facts and figures



Note: all definitions and metadata used in this profile are taken, as shown, from Eurostat

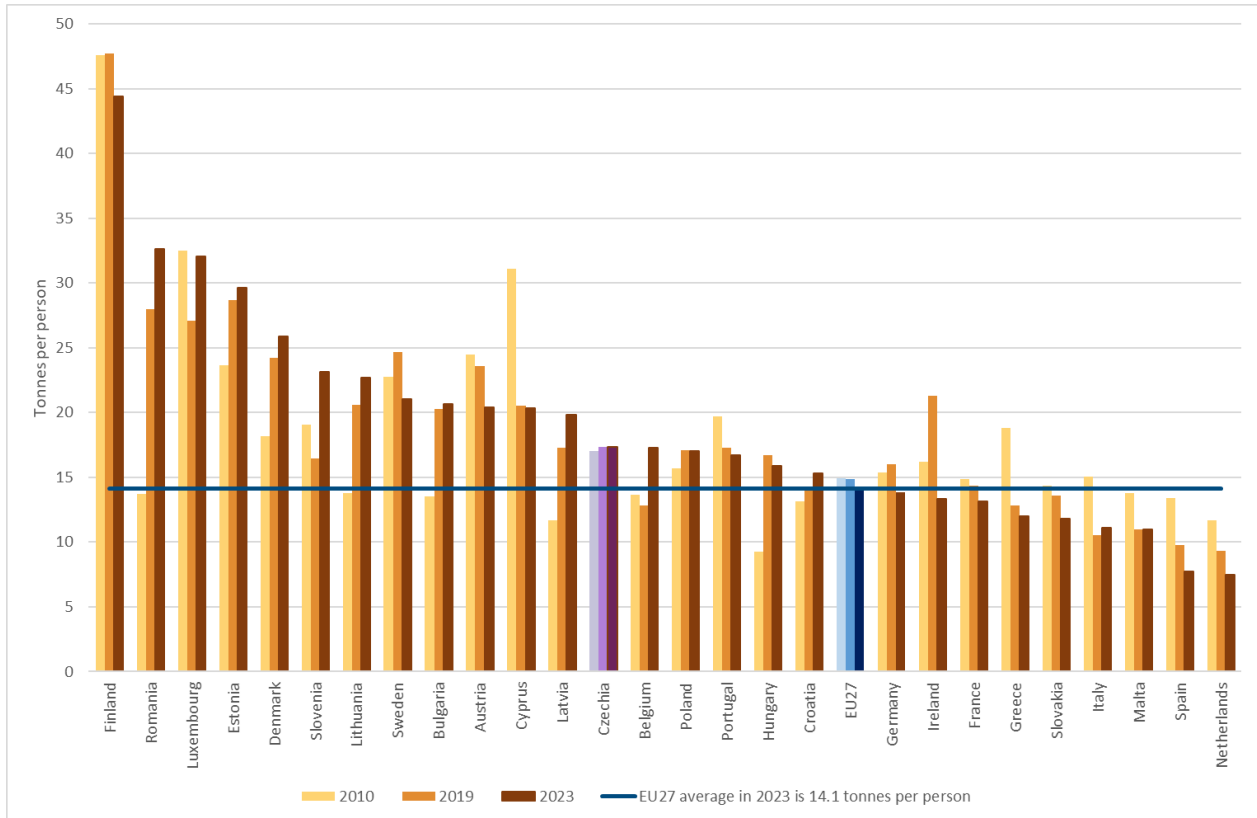
Source: Eurostat datasets, EU27 2021 EU27 2022 and EU27 2023 (accessed 21 August 2024)

Figure 1 Material flow diagram for Czechia in 2022, thousand tonnes



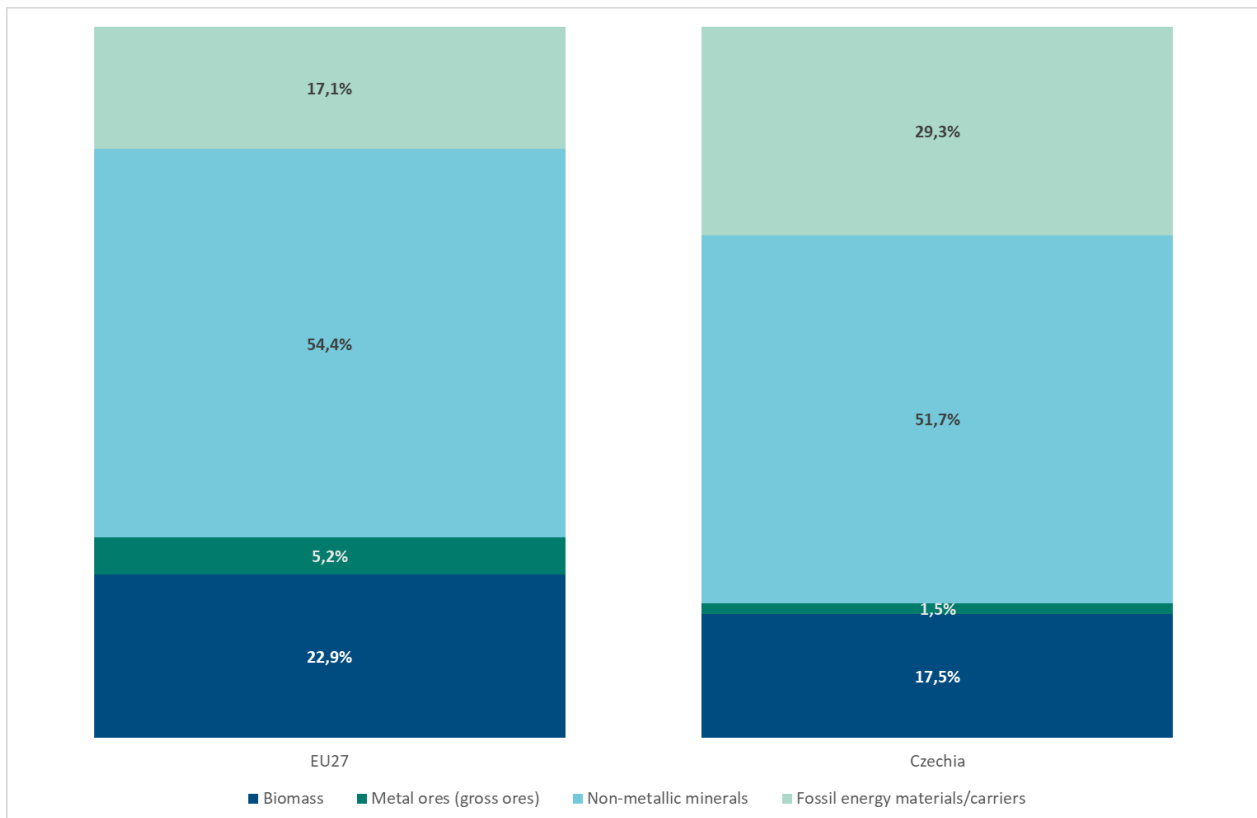
Source: Eurostat (2024) [env_ac_mfa], [en_ac_sd], [env_wassd] (accessed 21 August 2024)

Figure 2 Material footprint (raw material consumption), 2010,2019 and 2023, tonnes per person



Source: Eurostat (2024) [env_ac_rme] (accessed 21 August 2024)

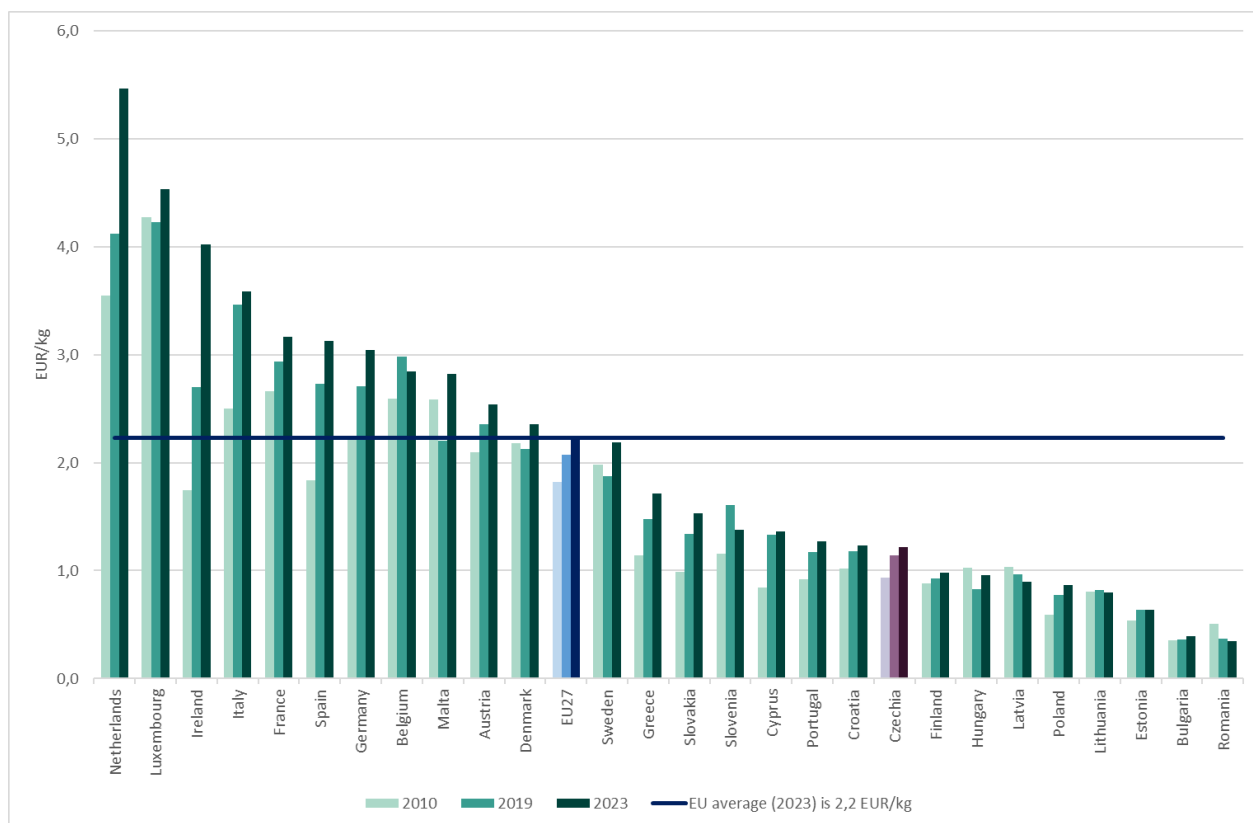
Figure 3 Domestic material consumption by selected material category, EU and Czechia, 2023, per cent



Note: totals may not sum to 100 % due to rounding

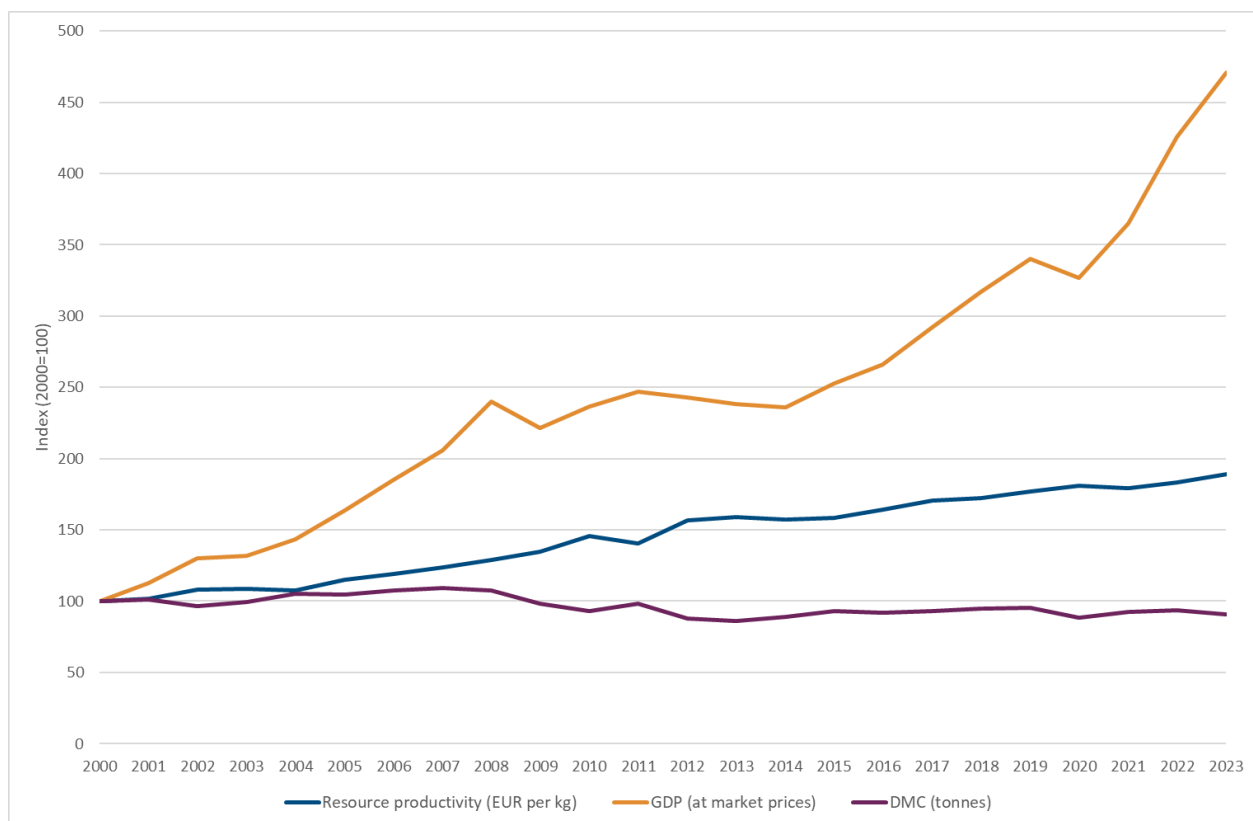
Source: Eurostat (2024) [env_ac_mfa] (accessed 21 August 2024)

Figure 4 Resource productivity (gross domestic product/domestic material consumption), EU27, 2010, 2019 and 2023, EUR per kilogramme



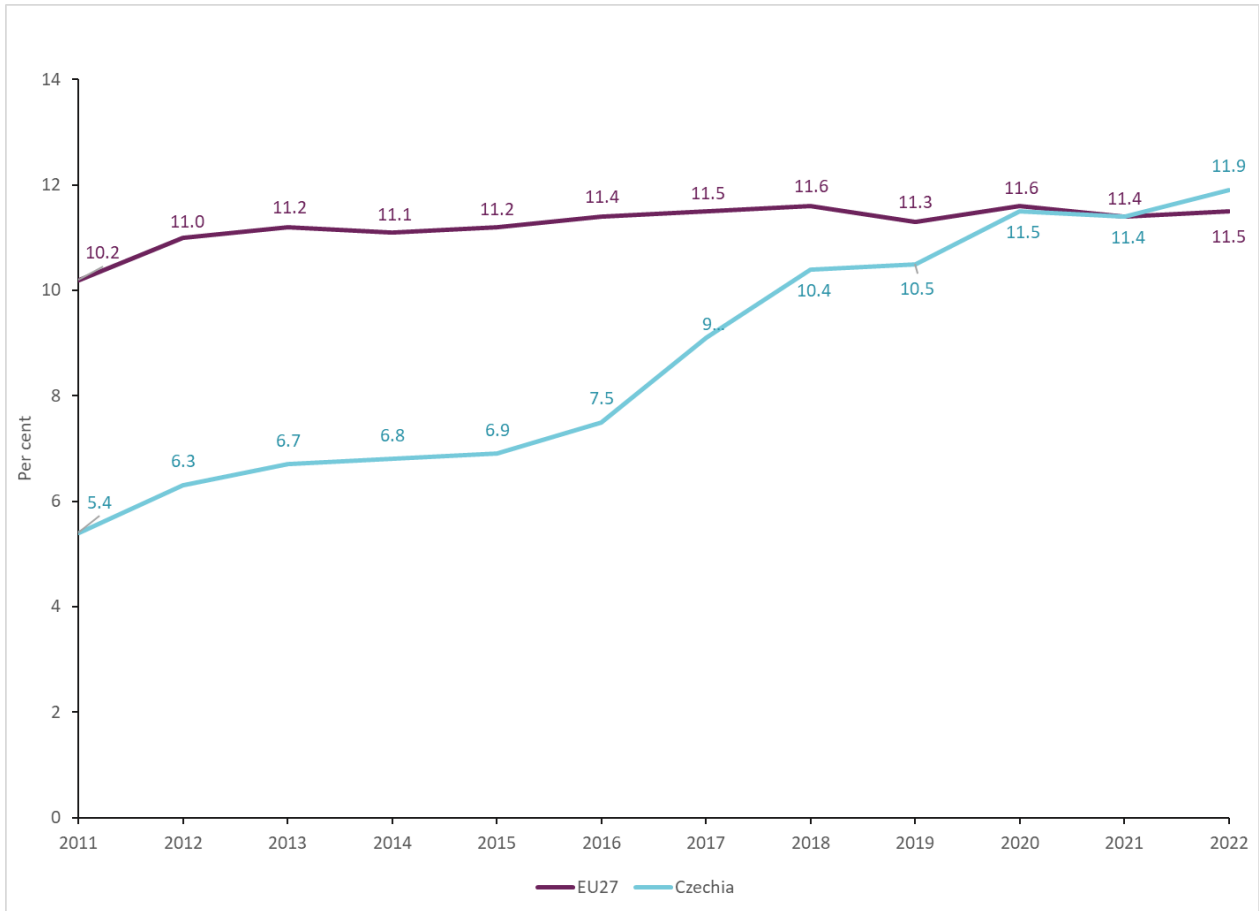
Source: Eurostat (2024) [env_ac_rp] (accessed 21 August 2024)

Figure 5 Gross domestic product, domestic material consumption and resource productivity trends, Czechia, 2000–2023, index (2000=100)



Source: Eurostat (2024) [env_ac_mfa], [env_ac_rp] & [nama_10_gdp] (accessed 21 August 2024)

Figure 6 Circular material use rate in Czechia, 2011–2022, per cent



Source: Eurostat (2024) [env_ac_cur] (accessed 21 August 2024)

Figure 7 Material import dependency in Czechia, 2011-2023, per cent



Source: Eurostat (2024) [cei_gsr030] (accessed 21 August 2024)

Existing policy framework

Dedicated national and/or regional and/or local strategy, roadmap or action plan for circular economy

Czechia adopted a dedicated national circular economy (CE) strategy called the **Strategic Framework of the circular economy of Czechia 2040** (or Circular Czechia 2040) in December 2021.

It sets out a vision: “In 2040, the circular economy brings significant environmental, economic, and social benefits to Czechia. As part of the measures taken, Czechia systematically supports the circular economy as a model for improving environmental protection, strengthening competitiveness and technological sophistication, creating new jobs, increasing raw material security, and acquiring new competencies of the citizens,” with a main goal of “Less waste and more value for the Czech Republic” and 10 strategic goals:

1. improving the state of the environment;
2. reduction of waste production and better waste management;
3. strengthening competitiveness;
4. creation of new jobs;
5. increasing raw material security, increasing the efficiency of natural resources management and increasing the share of renewable resources;
6. improving technological sophistication and innovation;
7. support for innovative forms of consumption;
8. the acquisition of new competencies, knowledge and skills;
9. creating a non-toxic environment and protecting the health of the population;
10. expanding the CE at regional and municipal level.

Moreover, **Circular Czechia 2040** defines 10 priority areas for a CE in Czechia, formulates individual goals within these priorities and determines measures for achieving them. The priority areas are:

- products and design;
- industry, raw materials, construction, energy;
- bioeconomy and food;
- consumption and consumers;
- waste management;
- water;
- research, development and innovation;
- education and knowledge;
- economic instruments;
- circular cities and infrastructure

The implementation document of the Circular Czechia 2040 consists of action plans, each for a six-year period. The first action plan is called the **Action Plan for Circular Economy 2022-2027** ⁽⁵⁾ and it was adopted by Czechia in June 2023.

The main function of the Action Plan is to specify in more detail the way of fulfilling the strategic goals, specific goals and typical measures of the Circular Czechia 2040 in the form of activities, thus setting a clear way of fulfilling them, justifying the need, identifying the main actors for the activities (carriers implementers), estimating their financial intensity and measurability. Major milestones and policy targets of strategic goals are also set out in this plan. The Action Plan elaborates selected typical measures in ten priority areas into activity cards that need to be implemented in the next six years from the perspective of the development of Czechia's circular economy.

⁵ https://www.mzp.cz/cz/akcni_plan_cirkularni_cesko_2040 (in Czech)

For example, the most important goals from each category are as follows:

- The primary goal for **Products and Design** is to ensure the extension of product lifespans and their reparability. This objective focuses on enabling the extension of product lifespans and ensuring that products can be easily repaired, thereby reducing waste and promoting sustainability.
- In the category of **Industry, Raw Materials, Construction, and Energy**, the main goal is to support the transition of industries towards circular solutions. This involves facilitating investments in new technologies, enhancing digitalisation, and promoting energy efficiency to foster competitiveness and sustainability in Czech industries.
- For the **Bioeconomy and Food** category, the crucial goal is to support measures to reduce food waste and related food bank projects. This goal aims to decrease food waste through preventive measures and support food banks to ensure the efficient utilisation of surplus food.

For instance, in the priority area of Bioeconomy and Food, the specific tasks include:

- Focusing on education and awareness-raising among consumers for responsible food consumption.
- Supporting food banks, composting facilities, and biogas plants.
- Promoting sustainable agriculture and responsible landscape management by supporting projects aimed at water retention in the landscape, sustainable forest management, and agricultural land care.

These measures aim to reduce food waste and manage unavoidable waste more sustainably.

- The key goal in the **Consumption and Consumers** category is to promote sustainable consumption models. This involves encouraging consumers to make environmentally conscious choices, favouring products with longer lifespans and supporting the adoption of circular consumption practices.
- In **Waste Management**, the primary goal is to increase the sorted collection of usable components of municipal waste in communities. This objective aims to enhance the collection and sorting of municipal waste to maximise recycling and reuse, thereby reducing landfill use.
- For the **Water** category, the main goal is to realise significant water savings and increase water recycling. This goal focuses on promoting the reuse of water, including wastewater, and ensuring sustainable water management practices to conserve this vital resource.
- The **Education and Knowledge** category aims to integrate circular economy education into existing educational programmes. This goal seeks to embed the principles of the circular economy into educational curricula, fostering awareness and understanding from an early age.
- In the **Research, Innovation, and Digitalisation** category, the key goal is to support research and development in the field of the circular economy. This objective emphasises advancing research and innovation to develop new technologies and methods that support the circular economy.
- The primary goal for **Public Procurement and Green Financing** is to promote sustainable public procurement. This involves encouraging the adoption of sustainable practices in public procurement processes, ensuring that government spending supports environmentally friendly products and services.
- Lastly, the goal for **Legislation and Governance** is to improve the effectiveness of the legal framework for the circular economy. This goal focuses on enhancing the legislative and regulatory environment to better support the implementation and growth of the circular economy.

Additionally, implementing an effective monitoring system to track progress is essential to measure and ensure accountability in achieving the objectives of the circular economy action plan.

These goals collectively represent a comprehensive strategy to foster a circular economy, emphasising sustainability, waste reduction, education, innovation, and robust governance.

The overall objective of the strategy is as follows: *“Transitioning to a circular economy does not only mean making adjustments aimed at reducing the negative impacts of the linear economy. Rather, it is a systemic shift that builds long-term resilience, creates business and economic opportunities, and provides environmental and social benefits.”*

In the case of mainstream circularity **across sectors and actors**, the basis for the implementation document was the material prepared by a working group consisting of representatives of the relevant ministries, regions, municipalities, industrial unions and associations, universities and non-governmental, non-profit organisations. For each priority area and its specific objective, a working card (available as part of the **Action Plan for Circular Economy 2022-2027**) was prepared containing activities and tasks related to the selected type of measures from the Circular Czechia 2040, identifying the bodies and cooperating organisations responsible for implementing the tasks, sources of funding for individual activities and deadlines for implementation. In this way, Czechia integrates these **policy measures across different sectors and actors**. The relevant bodies are actively involved across sectors.

Czechia will take **new initiatives** to implement individual tasks of the given type of measures in relation to the deadline for implementation of specific strategic goals of the Action Plan.

Circular Cities are one of the strategic goals in **Circular Czechia 2040**. The involvement of cities is essential to make the circular economy a reality. Cities are where the majority of consumption, waste production and greenhouse gas emissions take place. The circular economy offers an opportunity to respond to the challenges of resource consumption in cities. The sustainable development of settlements goes hand in hand with the coherence of strategic documents at both horizontal (regions, municipalities) and vertical (national, regional and municipal) levels. To date, the principle of sustainable territorial development is most often mentioned in an environmental context, in the field of natural resource management. An example of a circular city can be the **municipality of Kněžice**, which, thanks to a project co-financed by the EU – **Cohesion Fund within the Operational Programme Environment** - modernized the existing biogas plant. This led to an increase in the capacity to process biodegradable waste generated in its territory and its immediate surroundings, as well as an improvement in waste management. The municipality thus became energy self-sufficient. The project was implemented in 2020 and 2021.

Within the framework of the promotion of circular cities or possibly zero-waste cities, we try to support projects for the use of rainwater and grey water in the territory (re-infiltration of rainwater from roofs and concrete surfaces into the ground), reduction of energy consumption (regulation of lighting of monuments and streets at night), support for the creation of a circular network of municipalities and cities, or support for projects for the production of energy from renewable sources, making maximum use of local conditions.

Some of these projects are already running. They are supported by various funding programs - national and from the EU.

Examples include the Operational Programme Environment (OPŽP), the National Environmental Programme (NPŽP), the Modernization fund (ModFond), the Operational Programme Technologies and Applications for Competitiveness (OP TAK), the National Recovery Plan (NPO), and the Technology Agency of Czechia (TAČR).

Circular economy policy elements included in other policies

Circular economy policy element	Included in policy
Sustainable development of society and the transition to a circular economy.	Waste Management Plan of Czechia for the period 2015-2024 with outlook to 2035 (in Czech)
Support the establishment of reuse and repair centres	Waste Management Plan of Czechia for the period 2015-2024 with outlook to 2035 (in Czech)
Supporting innovation and development of the CE within business.	The update of the Secondary Raw Materials Policy of Czechia for the period 2019–2022 (in Czech)
Circular economy offering farmers and businesses in rural areas opportunities to diversify their business, mitigate risks and ensure sufficient incomes.	Bioeconomy concept in Czechia from the perspective of the Ministry of Agriculture (2019-2024) (in Czech)
Sustainable rural value chains in sectors such as biotechnology, bioenergy and the CE.	Bioeconomy concept in Czechia from the perspective of the Ministry of Agriculture (2019-2024) (in Czech)
(Circular) public procurement	National strategy of public procurement in Czechia for the period 2024–2028 (in Czech)
Supporting research, development and innovation of the CE	National Research, Development and Innovation Policy of Czechia 2021+

In 2020, the Ministry of the Environment initiated the update of the **Waste Management Plan of the Czech Republic** in response to changes in EU waste legislation published in the Official Journal of the EU in 2018, known as the "Circular Economy Package," and the new Circular Economy Action Plan – "A Cleaner and More Competitive Europe."

Also, in 2020, new laws were adopted, including **Act No. 541/2020 Coll., on Waste**, **Act No. 542/2020 Coll., on End-of-Life Products**, and an amendment to **Act No. 477/2001 Coll., on Packaging**, which fundamentally affect the functioning of waste and packaging management in Czechia. In 2022, a new law was adopted to limit the impact of selected plastic products on the environment, which will also influence the direction of waste management in the specific area of handling selected plastic products.

In May 2022, the government approved an update to the **Waste Management Plan of Czechia** for the period 2015-2024 with outlook to 2035. This update reflects significant changes in legislative regulations (see above) at both the European and national levels, such as new targets for packaging waste, municipal waste recycling, and landfill reduction.

Monitoring and targets

Assessment of circular economy performance

The European Commission has set up a [monitoring framework](#) to keep track of progress towards a circular economy. This framework provides a holistic view as it:

- measures direct and indirect benefits of 'becoming circular' and
- values the contribution of a circular economy in living well within the limits of the planet
- addresses energy and material supply risks.

It consists of **5 thematic sections** with a total of **11 statistical indicators**, some of which have additional sub-indicators. In some cases policy targets exist which should be achieved in the future, and the indicators monitor progress towards these targets. The current monitoring framework is a revision of the original framework which was set up in 2018.

This section elaborates on the assessment of Czechia its progress in terms of observed trends over the last 5 years and what country characteristics or policy actions may explain differences between the country its performance and the average EU performance.

The Ministry updated the waste management information system and electronic registers, and the new tool - **WMIS2** (comprehensive information system) enables better monitoring of waste management and better presentation of data.

We monitor waste management and circular economy. We collect and evaluate data about all waste, selected waste streams (municipal waste, packaging, end-of-life products, others). We monitor the waste recovery and waste recycling amount (tons, kg per capita) and rate (%). We monitor DMC, GDP, CMU indicators.

Examples:

- Material consumption
- Waste generation
- Amount of recycled waste and recycling rates
- Recycling rates for specific waste streams
- Circular material use rate

We monitor innovative projects, technologies and examples of good practice.

The key legislation governing waste management in Czechia is the **Waste Act** and the **Act on End of Life Products**, amended **Act on Packaging**, all adopted in 2020 and effective from 1 January 2021. All three laws create comprehensive rules for the management of all waste. They emphasise waste prevention and promote the waste hierarchy and the protection of human health and the environment as key goals of the waste management sector. The producer responsibility principle is widely applied to achieve targets for prevention, separate collection, and recovery and recycling. Laws set binding targets for preparation for reuse, recycling and waste recovery.

In 2022 39.1 million tons **waste, including all categories**, was produced in Czechia.

Of this, 1.6 million tons were **hazardous waste**, and 37.5 million tons were **non-hazardous waste**. There is 3,716 kg/cap of all waste (151 kg hazardous waste/cap and 3,565 kg non-hazardous waste/cap).

The waste was mainly recovered. In relation to the production of waste, 86 % of it was recovered of which 83 % material recovery and 3 % energy recovery. Up to 13 % of all waste was landfilled.

An important group is **municipal waste**, the inhabitants of Czechia produced 5.8 million tons of it in 2022. That means 552 kg/cap. The share of municipal waste in total waste production still stands at 14.8%.

In 2022 53 % of produced **municipal waste** was recovered of which 41 % was recycled and 12 % was used for energy. 45 % of municipal waste was deposited in landfills. In 2021 it was 47 % and thus there was a year-on-year decrease of two percentage points, which by weight is a year-on-year decrease in the amount of municipal waste deposited at the landfill by 185.5 thousand tonnes.

In Czechia 1.4 million tonnes (134 kg/cap) of **packaging waste** were generated in 2022. Packaging waste generation of all packaging waste materials has increased. 72 % of packaging waste was recycled and 82 % was recovered.

The efficiency of separation in municipalities is a good performance indicator of the effectiveness of the separate collection of municipal waste. In 2022, it was for paper (70.4 %), plastic (56.2 %), glass (70.2 %) and metal (91 %).

The share of the production volume of secondary raw materials on direct material input is 8 % (2022). Circular material use rate is 11.4 % (2021).

Domestic material consumption per capita by material groups 16 t/cap (2022).

Figure 8: Material intensity of the economy, DMC, DMC/HDP

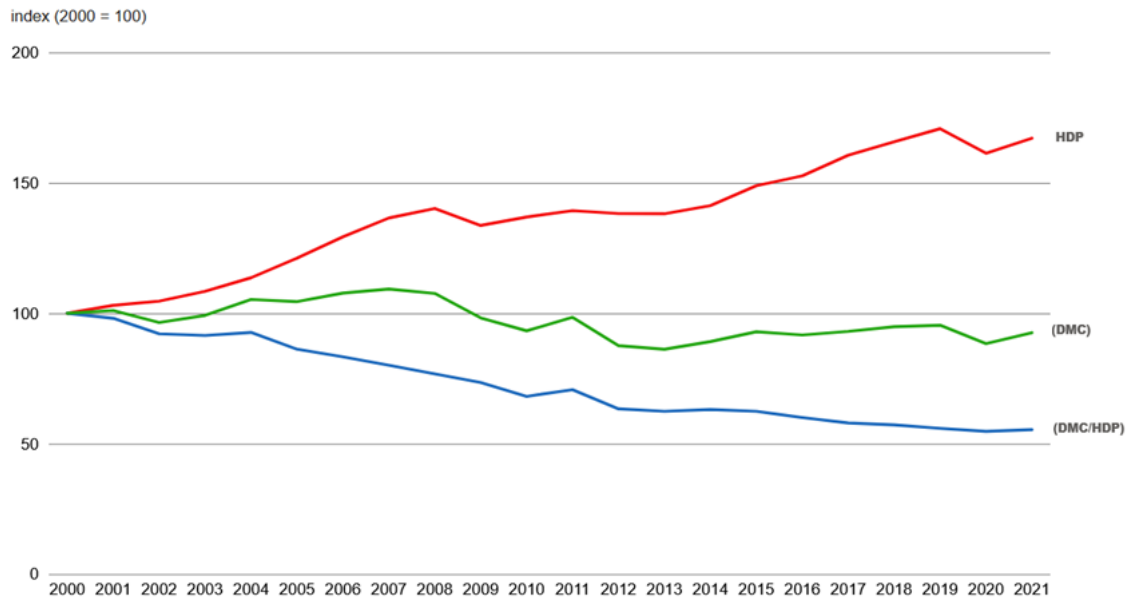


Figure 9: Domestic material consumption and its components: DMC, DEU, Export, Import

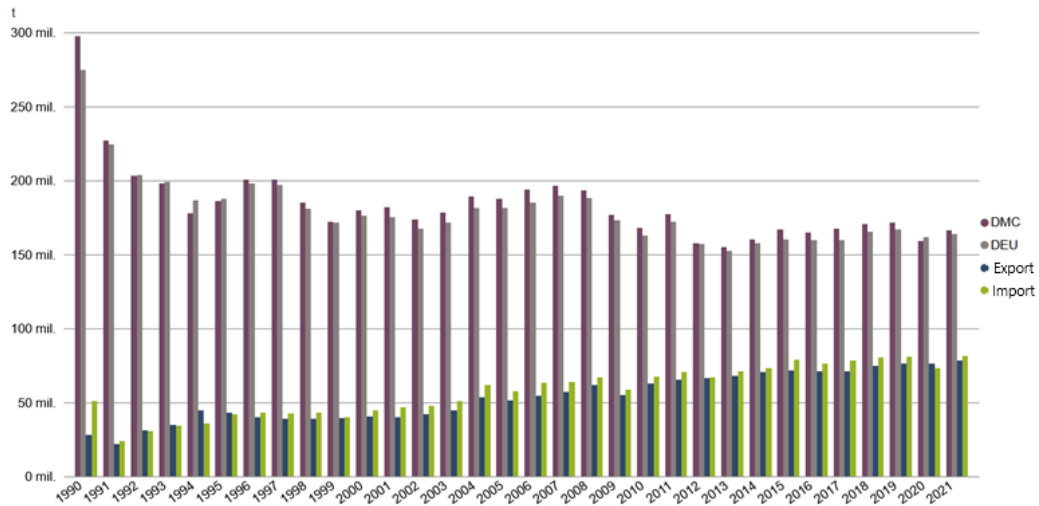


Figure 10: Domestic material consumption per capita

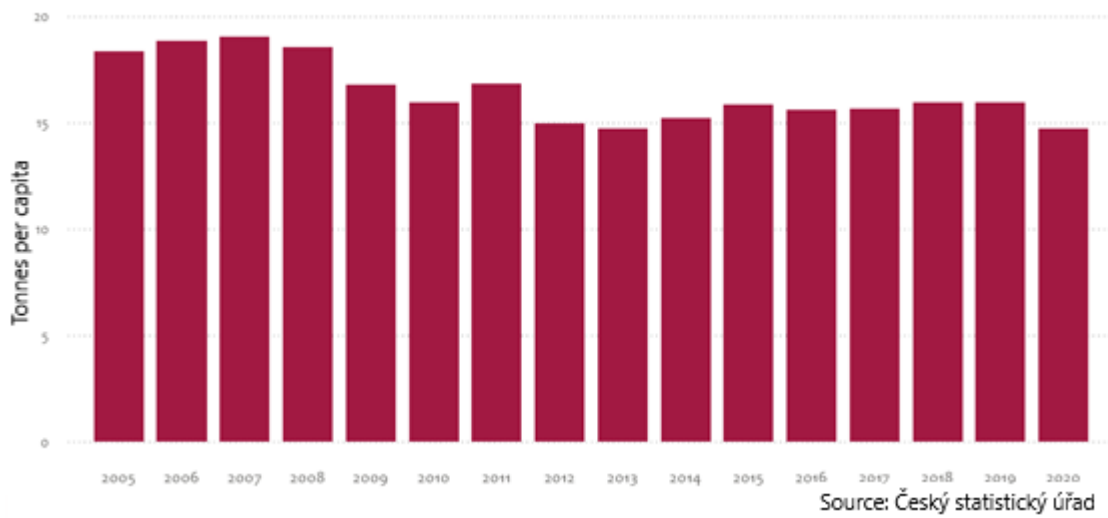


Figure 11: Domestic material consumption per capita

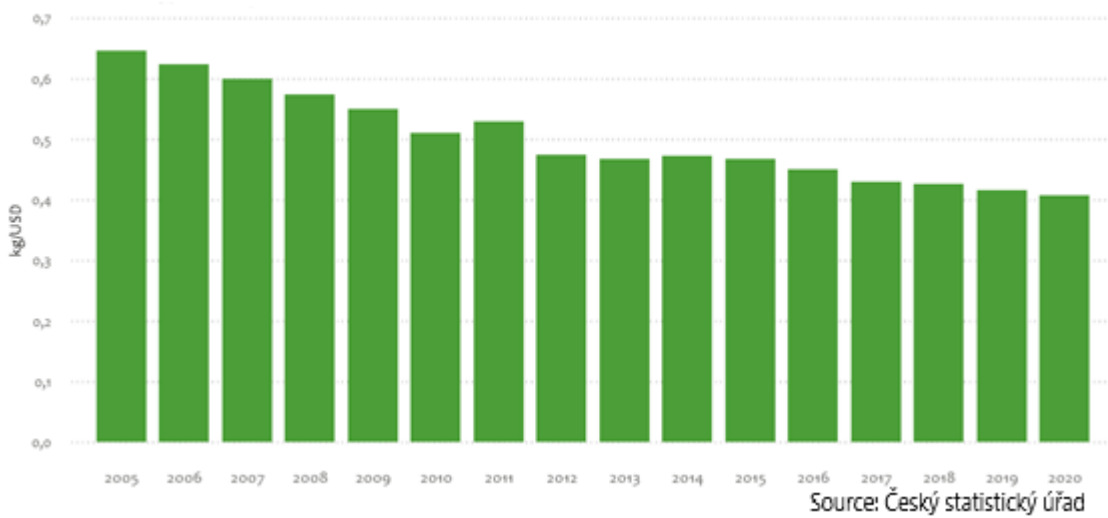
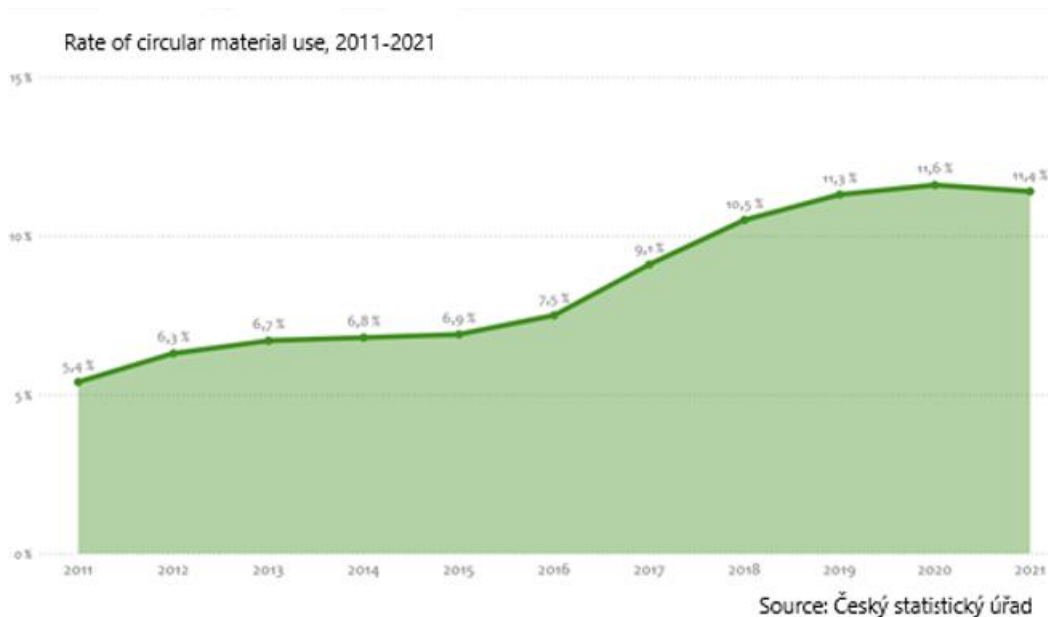


Figure 12: Rate of circular material use between 2011 and 2022



Historically, Czechia had lower landfilling fees than the EU average, which hindered the development of municipal waste recycling. As of 1 January 2021, a fee for depositing recoverable waste in landfills has increased from 500 CZK (20,15 euros) to 800 CZK/t (32,24 euros) and will gradually increase up to 1850 CZK/t (74,57 euros) until 2029.

According to section 157 of the Waste Act, until 2029, municipalities may pay a lower fee (500 CZK/t; 20,15 euros) for deposition of municipal waste which fulfils criteria for recoverable waste (with the exception of hazardous waste) in landfills until they exceed a certain amount. This amount is set in the **Annex 12 to the Waste Act in 2022**.

Table 1: Annex No. 12 to the Waste Act in 2022

Year	2021	2022	2023	2024	2025	2026	2027	2028	2029
Quantity of waste per inhabitant in tonnes	0.2	0.19	0.18	0.17	0.16	0.15	0.14	0.13	0.12

These provisions of the new **Waste Act** intend to motivate municipalities to take measures that will lead to increased separate collection of recyclable and recoverable municipal waste, but at the same time it still holds landfilling as the cheaper treatment alternative, and thus the recycling of municipal waste is not growing fast enough. To speed up the process, landfilling fees will annually grow until peaking in 2029 at 1850 CZK/t (74,57 euros).

The values on persons employed in the sectors and other basic data about Czechia ⁽⁶⁾.

Circular economy monitoring frameworks and their indicators beyond the ones from Eurostat

Czechia is currently preparing the publication of new data using the new **Waste management information system**. A new evaluation of the state of waste circular management as part of the preparation of a new **Waste management plan** is also in preparation and will be issued in 2025.

The first monitoring report, covering the period from 2022 to 2024 is currently being prepared and is expected to be finalized in 2025. It will evaluate the achievement of measures set in the Action Plan for Circular Economy 2022-2027, including major milestones and policy targets. The report is likely to be published in 2026.

⁶ https://ec.europa.eu/eurostat/databrowser/view/cei_cie011/default/table?lang=en

Czechia uses basic indicators recommended by Eurostat, EEA and UN.

Circular economy targets

The binding targets are based on European legislation and are set in the **Waste management plan** for 2035. A new **Waste management plan** with a view to 2040 is currently being prepared. The targets will mirror the EU targets, with some new additions beyond the EU targets. But the new WMP will go through the comment process and consolidation.

The **Circular Czech Strategy** sets other goals in the area of the circular economy. Individual tasks are listed in the **Action Plan** (see above). An example of a specific priority axis and individual tasks is also given (see above). These documents include the measures needed to achieve the objectives.

Czechia monitors the CMU rate, but they currently do not set its increase as a binding goal.

Innovative approaches and good practices

Examples of public policy initiatives (national, regional or local)

→ *Good practice example - producer responsibility/supplier responsibility:*

The Ministry of the Environment prepared an amendment to the **Packaging Act** focusing on the **introduction of obligatory deposit refund system (DRS) for PET bottles and aluminium cans in Czechia from 2026** ⁽⁷⁾. The amount of plastic beverage bottles and aluminium cans is over 2.5 billion annually. DRS could lead to better circularity for affected packaging and to the reduction of littering.

→ *Good practice example - reuse, repair, remanufacturing:*

Federation of furniture banks and reuse centres ⁽⁸⁾ is an association of furniture banks and reuse centres operating in Czechia, socially and environmentally beneficial organizations that help prevent the generation of municipal waste. There is an effort to connect existing places, initiate the creation of new ones, and focus on the development and support of the topic among the public and public administration to make reuse a clearly understood concept and a common alternative for disposing of items.

Project examples:

- **Art re use:** The aim of the "art re use" / "art map" project based in Prague is to create a central communication hub for the recycling, distribution, and transformation of unused gallery and artistic materials into useful resources ⁽⁹⁾.
- **Freeshopping:** Free stores are aimed at promoting the reuse of everyday household, workshop, office, and similar equipment. They support the circular economy, people can donate and take functional household, workshop, and office items. This process reduces waste and encourages the reuse of items. By facilitating the exchange of goods, free shops help minimize discarded items and promotes sustainable and economical behaviour among the community ⁽¹⁰⁾.

⁷ https://www.mzp.cz/cz/news_20231107_Novela-zakona-o-obalech-zavede-zalohovani-PET-a-plechovek (in Czech)

⁸ <https://www.reusefederace.cz/> (in Czech)

⁹ <https://www.artreuse.cz/user/documents/upload/PRESS/Statistika%20za%202%20roky.pdf> (in Czech)

¹⁰ <https://www.stred.info/dejber/> (in Czech)

- **Furniture Bank of the Liberec Region:** The mission of the Furniture Bank of the Liberec Region is to utilize furniture and household equipment that would otherwise end up as waste, contribute to reducing municipal waste production in the Liberec Region and simultaneously assist people in social and financial need ⁽¹¹⁾.
- Quantitative Impacts:
 - Volume of Donations: The bank collects a significant amount of furniture and household items that would otherwise end up in landfills.
 - Number of Beneficiaries: It serves numerous individuals and families in need, as well as various organizations, enhancing their living conditions.
 - Waste Reduction: By facilitating the reuse of items, it significantly reduces waste generation in the region.
- Qualitative Impacts:
 - Social Support: Provides crucial assistance to low-income families and individuals, improving their quality of life.
 - Community Engagement: Encourages community participation in donation and reuse activities, fostering a sense of solidarity.
 - Environmental Awareness: Raises awareness about sustainability and the benefits of a circular economy.
- **Opravná (The Repair Shop)** is currently the largest repair network in Czechia , with over 1500 registered repairers and service providers. It easily connects customers with the nearest service or repair professional at a reasonable price. It is the only platform in the country that can assist with almost everything, from mending clothes, finding hourly workers, furniture renovation, to more specialized tasks such as replacing a broken mobile phone screen or repairing a refrigerator. This extensive network enables consumers to find reliable and affordable repair services for a wide range of items, contributing significantly to the reduction of electronic waste and promoting environmental sustainability ⁽¹²⁾.

→ *Good practice example - waste prevention:*

Potravinové banky (Food banks) are non-profit organizations that collect food and distribute it to their partner charities and other charitable organizations. This way, food can reach end clients - children, the elderly, single parents, the disabled, the homeless, and others in need. The banks obtain food from food chains, food collections, the European food and material aid program, agricultural producers, producers, and individuals. At least 75% of these are ready-to-eat foods with an expired minimum shelf life, unsellable food due to damaged packaging or poor labelling, which would otherwise end up in a landfill or incinerator ⁽¹³⁾.

→ *Good practice example - education and awareness raising:*

Ministry of the Environment - Waste prevention activities - on the Czech Ministry of the Environment website, brochures on raising awareness about waste prevention are available ⁽¹⁴⁾.

Project examples:

¹¹ <https://nliberec.cz/o-nas/> (in Czech)

¹² <https://www.opravarna.cz/jak-to-funguje> (in Czech)

¹³ <https://www.potravinovebanky.cz/en>

¹⁴ https://www.mzp.cz/cz/program_predchazeni_vzniku_odpadu (in Czech)

Clean Up Czechia: The spring-cleaning day took place on Saturday, April 6, 2024. In 2022, 4687 clean-up events involving 194800 volunteers collected 2730 tons of waste, with 425 tons being sorted for recycling. In 2023, there were 5,117 clean-up events with 225000 volunteers collecting 1570 tons of waste (the higher amount of waste in 2022 is probably due to the peak of the COVID-19 pandemic, which produced a lot of single use waste, like masks or gloves). In 2024, 3867 clean-ups have already been registered. Detailed data for 2024 are not available yet ⁽¹⁵⁾.

→ *Good practice example - support programmes targeting CE:*

The main support programmes targeting CE are Operation Programme Environment 2021-2027, Modernisation Fund or Operational Programme Just Transition. As other examples, **Operational Programme Technologies and Applications for Competitiveness**, **Operational Programme Transport, Environment for Life Programme** or **National Programme Environment** can be mentioned.

Within the framework of **Operation Programme Environment 2021-2027**, under the specific objectives of the circular economy (*Supporting the transition to a circular economy that makes efficient use of resources*), Ministry of the Environment is focusing on **waste prevention** (composters, re-use centres, food banks, prevention of waste from disposable crockery and packaging) and **waste treatment** (collection points, sorting systems, treatment of sewage sludge, material use of waste, energetical use of waste, chemical recycling, facilities for the collection and management of hazardous waste).

In the programming period 2021-2027, information regarding progress in financing is reported to the European Commission at regular intervals in accordance with Article 42 of the General Regulation (Table 1 - *Financial information at priority and programme level* and Table 2 - *Breakdown of the cumulative financial data by type of intervention*) and programme indicators/goals (Table 5 – *Common and programme specific output indicators* and Table 9 – *Common and programme specific result indicators*).

Financial tables are provided 5 times a year (the last tables contained data as of 31/03/2024) and information on the fulfilment of programme objectives twice a year (the last tables contained data as of 31/12/2023). Activities related to the mid-term review of the programme in accordance with Article 18 of the General Regulation are currently underway, the results of which will be known in the course of 2025.

→ *Good practice example - (green/circular/sustainable) public procurement:*

- **National strategy of public procurement in Czechia for the period 2024–2028** – there is a priority about socially and environmentally responsible public procurement.
- Czechia has been supporting the increased demand for products made from recycled materials for a long time through the **Operation Programme Environment 2021-2027** and is paying due attention to this trend. When purchasing products made from recycled materials - in so-called **green tenders** - applicants receive a higher level of support in the form of a bonus.

Examples of private policy initiatives (sectoral)

→ *Good practice example - innovative circular business models:*

- **Coffee grounds recycling**

¹⁵<https://www.uklidmecesko.cz/> (in Czech)

Coffee grounds is a byproduct, which is generated during coffee production and mostly ends up in the trash. The amount of coffee grounds disposed of in this way is significant and often not reused meaningfully.

The system ⁽¹⁶⁾ provides a collection service for coffee grounds to cafés and organizations, connecting them with community gardens where the grounds can be repurposed. Additionally, the grounds remain in the locality where they were produced, supporting local products and communities. By using electric cargo bikes for collecting the grounds, they also consider the environment and conserve natural resources. For households passionate about coffee and concerned about the environment, they show how easy it is to reuse coffee grounds at home using the so-called grow kit for growing oyster mushrooms.

In 2022, it entered the Nakopni Prahu (Wake up Prague) competition and won second place.

- **Diakonie Broumov**

Diakonie Broumov ⁽¹⁷⁾, a social cooperative, deals with collecting used textiles from across the country, then sorting them and giving them a second chance. Not only does this reduce the environmental burden, but it also provides employment for many people in that area. Diakonie Broumov, with its one hundred employees, sorts six thousand tons of textiles annually, which it collects from more than two thousand municipalities.

However, 15% of the received textiles do not find further use and end up in landfills or incinerators. The management of the social cooperative decided to change this. The unusable textiles are crushed, mixed with a binding material, and then the resulting mixture is compressed under higher pressure and temperature, creating a covering layer on both sides of special boards. Through this compression and subsequent cooling and formatting to a specific size, the final product is created. These are boards that can be further used in construction and other industries. Currently, this material is used to produce items such as clothing hangers. There are plans to use it in the construction industry or as a material for making containers for textile waste.

- **REkrabička a REkelímek**

REkrabička a REkelímek ⁽¹⁸⁾ is innovative company that brings a revolutionary system of returnable food and beverage containers, elevating serving to a new level. Their reusable packaging offers a wide range of benefits for both partners and their customers. They are design products that meet even the most demanding requirements of the gastro industry.

Currently, the company's network includes nearly 600 partners across Czechia, including small bistros, restaurants, cafeterias, large dining facilities, food deliveries, nursing homes and even hospitals. Their products have gained popularity abroad, including countries such as Germany, Austria, the United Kingdom, the Netherlands, and Israel.

Because each REkrabička (reusable box) and REkelímek (reusable glass or coffee cup) can be used up to 400 times, the company significantly saves natural resources and reduces waste. Their products are ecological, recyclable, and manufactured directly in Czechia.

- **Retextil**⁽¹⁹⁾

Textile material that cannot be reused is combined with PE which comes from the packaging to create a composite granulate. Textile waste and PE are crushed, melted together and formed into the granulated material known as Wootex. The intended use of this granulate is for the production of products that replace materials from natural sources, such as wood.

¹⁶ <https://www.rekava.cz/> (in Czech)

¹⁷ <https://diakoniebroumov.org/> (in Czech)

¹⁸ <https://www.rekrabicka.cz/> (in Czech)

¹⁹ <https://www.retextil.cz/> (in Czech)

Products made from this material can be used, for example, in the construction of terraces, soil stabilization, manufacturing of urban furniture, or for garden and outdoor spaces. An ideal use for the recyclate is the production of covers for container stands, where waste is collected and can acquire a new attractive appearance. The material is highly resistant to oils, fats, acids, and salts. Products made from textile composite will be appreciated by anyone requiring a guarantee of long lifespan and durability, as well as minimizing future costs.

- **Second Life Furniture**

The **Second Life Furniture** ⁽²⁰⁾ service in Czechia, allows customers to sell unused or unnecessary furniture. Now, customers can also contribute to this effort by offering unwanted furniture for sale.

→ *Good practice example - food:*

Preventing food waste is one of the crucial topics in waste management. Several initiatives in Czechia address this issue. The platform **Zachraň jídlo** ⁽²¹⁾ (Save the Food) is a key element in the field of food waste. It provides verified data on wastage by key stakeholders, proposes specific measures for responsible food handling, motivates for change, and seeks support for it. Their vision is a world where food is treated with respect, food waste is socially unacceptable, and therefore minimized to the lowest possible level at all stages of the food chain. They organize events and educational campaigns for consumers, which have succeeded in bringing the issue of food waste to the attention of thousands of people. Events and campaigns are a way to highlight specific issues related to waste, such as the disposal of aesthetically imperfect vegetables, the difference between the expiration date and the minimum shelf life, or the possibility of donating meals from corporate canteens.

Another example of best practice is the application **Nesnězeno** ⁽²²⁾ (Not Eaten). Nesnězeno offers a simple solution to prevent unnecessary food waste. It is a platform through which businesses sell food from the same day or delicacies approaching the expiration date. The platform is very popular in larger cities in Czechia, offering a wide range of businesses that offer their food at discounted prices, from cafes and bakeries to restaurants and bistros, to grocery stores. It is now also spreading to smaller towns through collaboration with a food chain and the sale of food items that are close to their expiration date. This expansion aims to reduce food waste by offering discounted prices on products that are still perfectly good to consume but need to be sold quickly. The collaboration with the food chain enables the application to reach a wider audience and support local communities in both urban and rural areas. Through this initiative, the application not only helps consumers save money but also promotes sustainability and responsible consumption.

→ *Good practice example - water:*

There is a project ⁽²³⁾ focusing on the issue of bottled water with the aim of maximizing the reduction of plastic waste. The first step is to establish a network of smart filtration stations placed in public locations such as train stations and universities. Here, users can fill their own bottles with filtered and chilled water for a symbolic contribution. This approach saves hundreds of thousands of PET bottles monthly, as can be seen in the case studies ⁽²⁴⁾.

Secondly, the project has developed filtration devices for households and office spaces, providing water of the highest quality. This solution not only reduces the consumption of bottled water, but also increases the availability of clean water for consumers, both at home and in the workplace.

²⁰ <https://www.druhyzivotnabytku.cz/> (in Czech)

²¹ <https://zachranjidlo.cz/> (in Czech)

²² <https://nesnezeno.eco/> (in Czech)

²³ <https://www.lokni.cz/> (in Czech)

²⁴ <https://www.lokni.cz/lokni-mediakit-2024.pdf> (in Czech)

The way forward

Identifying and addressing barriers and challenges

The **main challenges** to the implementation of a circular economy in Czechia are:

- significant reduction of waste landfilling,
- creating adequate conditions for better application of recyclates in final product,
- strengthening of the extended producer responsibility systems for different product groups (tightening of conditions for manufacturers and including more products within EPR systems. New EPR systems are under preliminary analysis),
- effective application economic/tax measures,
- capacity building of the infrastructure for material and energy recovery from waste.

An integral part of the transition to a circular economy is **ecodesign of products**. Taking more horizontal approach and considering a mandatory content of recycled materials for specific products would encourage the use of more recycled materials in manufacturing of certain products, or the other way around: minimum recycled content could significantly stimulate recycling and the use of secondary raw materials and increase the demand for recycled products and thus contribute to speeding up the transition to circular economy.

Czechia has also faced the problem that **primary materials are often cheaper than secondary materials**, although this has been changing in the light of recent crises. It is also **necessary to support research and innovation** in circular economy and waste management, including new materials, new technologies and new approaches.

Czechia has made active efforts to shift towards a circular economy, including by adopting the strategic document **Circular Czechia 2040** and first **Action Plan**. They also have a comprehensive national waste management strategy – **National Waste Management Plan**.

Czechia has implemented significant legislative measures for more circular economy at national level – ambitious recycling targets, landfilling ban of recyclable and recoverable waste in 2030, progressive increasing of landfilling fee, ban of some plastic products, different EPR systems.

Their suggestions for how policy could help to overcome the barriers to CE include the importance of more closely evaluating existing economic, fiscal and tax legislation to see whether it sufficiently reflects the need to support the transition to a circular economy. The possible contribution of these measures is also mentioned in the **EU Circular Economy Action Plan**, the **EU Zero Pollution Action Plan** and the **Waste Framework Directive**. The Organisation for Economic Cooperation and Development also recommends tax measures in its various studies as a way to accelerate the development of circular economy. Czechia considers tax measures and tax policies as important and potentially powerful tools for transition to a circular economy.

Future policy plans

Czechia is currently preparing the publication of new data using the new **Waste management information system**. A new evaluation of the state of circular waste management as part of the preparation of a new **Waste management plan** is also in preparation and will be issued in 2025.

Component 2.7 Circular economy, recycling and industrial water of the National Recovery Plan ⁽²⁵⁾ is aimed at supporting the circular economy in Czechia. The objective of the component is, in accordance with the essential EU strategic documents (EU Action Plan for the Circular Economy, New EU Action Plan for the Circular Economy), to support the acceleration of the transition to a circular economy in Czechia, to prevent the generation of waste, to increase the recycling infrastructure, to limit the waste of secondary raw materials, to increase the content of recycled materials in products and increase the raw material security of Czechia.

Other than that, the Ministry of the Environment is responsible for the following reforms and investments supporting the transition to a circular economy:

Reform 1: Implementation of new legislation on waste management in Czechia

The reform aims at increasing the prevention, recycling, recovery and sorting of waste and reducing landfilling, with the objective of strengthening the principles of producer responsibility and eco-modulation.

Following the newly adopted waste legislation in 2020, a follow-up on implementing regulations as well as national and regional waste management plans aimed at improving environmentally friendly preparation for reuse, recycling, utilization and disposal of waste will be completed and entered into force.

Single use plastics legislation was adopted in 2022, which is transposition of **Directive 2019/904/EU**. Key objectives of this legislation are the reduction of single use plastics products, better collection of specific single use plastics products, obligatory recycled content in plastic, beverage containers, information for consumers and extended producer responsibility.

The reform represents a process of coordination and implementation of the newly adopted legislation on waste management in Czechia.

The new waste legislation (**Waste Act No. 541/2020 Coll., End-of-Life Products Act No. 542/2020 Coll., Amendment to the Packaging Act No. 545/2020 Coll., Act No. 243/2022 Coll. on the limitation of the environmental impact of selected plastic products**) supports the transition to a circular economy and reflects all binding objectives resulting from adopted European law.

Following the adoption of the new waste management legislation, the relevant implementing regulations were also finalised and published in the Collection of Laws of Czechia in Q3 2023.

In May 2022, the Government of Czechia also approved the update of the **Waste Management Plan** of Czechia for the period 2015-2024 with a view to 2035, which represents the basic strategic document and vision for waste management until 2035. Following the approval of the update of the national WMP, updates of the regional WMPs are underway and should be finalized in Q3 2024.

Overall completion of **Reform 2.7.1: Implementation of the new waste management legislation in Czechia** is expected in Q3 2024.

Reform 2: Finalisation and implementation of the circular Czechia strategy 2040

The reform consists of the finalisation and implementation of the **Circular Czechia** strategy 2040, which shall promote circular economy principles and further define the necessary priorities and steps ensuring that Czechia becomes resilient in the long term to future environmental threats, including climate change and biodiversity loss, and develops an overall sustainable social system.

The **Strategic Framework of the Circular Economy of Czechia 2040** was completed and approved by the Government of Czechia on 13 December 2021.

²⁵ <https://www.planobnovy.cz/> (in Czech)

The evaluation of the development of circular economy in Czechia, as well as the achieved development of implementation of measures of **Circular Czechia 2040 Strategy** will be prepared by the Ministry of Environment and the evaluation will be published as part of a monitoring report.

The reform shall be completed by 30 September 2025.

Strategic Framework for the Circular Economy of Czechia 2040, approved by the Government of Czechia 13 December 2021, formulates priorities and steps leading to the long-term sustainability of Czechia against future environmental threats, including climate change and biodiversity loss, and the development of a sustainable social system. The strategic framework defines individual targets and sets out measures and tools to achieve them. In June 2023, the Government of Czechia approved the follow-up Implementation Action Plan for the period 2022-2027, which sets out specific activities and tasks for the next six-year period to contribute to the fulfilment of the objectives set out in the Strategic Framework.

Investment 1: Building recycling infrastructure ⁽²⁶⁾

The general objective of this measure is to support investments leading to the development of a circular economy in the field of biodegradable waste management. The measure shall support projects enhancing biodegradable waste recycling capacities and projects aiming at the reintroduction to the soil of compost and of the waste from biogas digesters.

In the first half of 2023, intensive preparation and clarification of the conditions of the subsidy call between the EC and the State Environment Fund/ Ministry of the Environment took place.

In July 2023, grant call No. 6/2023 - Recovery and treatment of biodegradable waste with a total allocation of CZK 1.6 billion was announced. Applications for support are accepted from 1 September 2023 to 2 September 2024.

Subsequently, the process of evaluation and approval of the applications received will take place and will be completed by the end of 2024.

Other activities and programmes to support the circular economy:

Significant financial support for the development of the circular economy of Czechia from the Ministry of the Environment long-term flows from the Operational Program Environment (OPE).

Specific objective 1.5 – CIRCULAR ECONOMY with allocation: CZK 7.1 billion (2 837 024 euros) supports the entire area of waste and circular economy.

Priority: waste prevention; separation of waste; high-quality waste sorting; material recycling of waste.

²⁶ <https://www.narodniprogramzp.cz/nabidka-dotaci/detail-vyzvy/?id=122> (in Czech)

European Topic Centre on
Circular economy and resource use
<https://www.eionet.europa.eu/etcs/etc-ce>

The European Topic Centre on Circular economy and
resource use (ETC-CE) is a consortium of European
institutes under contract of the European
Environment Agency.

