Country profile

Early warning assessment related to the 2025 targets for municipal waste and packaging waste

Czechia

June 2022

European Environment Agency

Contents

Acknowledgements

This assessment was prepared by the ETC/WMGE and the successive ETC/CE under guidance of the European Environment Agency and with inputs from a consortium led by Rambøll Group under contract with the European Commission. It builds to a large extent on the answers provided by the Czech Ministry of the Environment, in April 2021 to a questionnaire developed by the EEA and ETC/WMGE. The EEA and ETC/CE would like to thank the Czech authorities for the information provided and for the kind review of drafts of the assessment in 2021 and April 2022.

1 Introduction

1.1 Background and purpose

The Waste Framework Directive 2008/98/EC (as amended by Directive (EU) 2018/851) includes a target to recycle and prepare for reuse, by 2025, 55 % of municipal waste generated. The Packaging and Packaging Waste Directive (94/62/EC as amended by Directive (EU) 2018/852) includes targets for the recycling of packaging waste, both in total and by material, to be achieved by 2025. The Landfill Directive (1999/31/EC as amended by Directive (EU) 2018/850) requires to limit the landfilling of municipal waste to 10 % of the generated municipal waste by 2035. The Directives also foresee that the European Commission, in cooperation with the European Environment Agency, publishes early warning reports on the Member States' progress towards the attainment of the targets, including a list of Member States at risk of not attaining the targets within the respective deadlines, three years ahead of the target dates. This assessment is a contribution from the EEA to the early warning reports according to Article 11b Waste Framework Directive and Art. 6b Packaging and Packaging Waste directive.

This document is an early warning assessment for Czechia. The document is based on the analysis of a number of factors affecting recycling performance (success and risk factors). The assessment aims at concluding whether Czechia is at risk of missing the targets for municipal waste and packaging waste set in EU legislation for 2025. In addition, it provides a preliminary assessment of the prospects for meeting the 2035 target for landfilling of municipal waste.

The assessment takes into account information that was available before 10 May 2022.

1.2 Approach

The assessment follows a methodology developed by the EEA and ETC/WMGE and consulted with the Eionet in 2020 (ETC/WMGE, 2021), which was adjusted in 2021 taking into account experiences with applying the methodology in 2021 (ETC/CE & ETC/WMGE, 2022). This methodology uses a set of quantitative and qualitative success and risk factors that have been identified to affect the recycling performance. The assessment is to a large extent based on the information provided by the Member State in the reply to an EEA-ETC/WMGE questionnaire as well as on available data and information from Eurostat and other relevant sources. In addition, a consortium under contract with the European Commission (led by Rambøll Group) has conducted a critical review of the draft assessment in Q4/2021 and provided further information.

More specifically, chapter 2.1 assesses the likelihood for Czechia to achieve the target to prepare for reuse and recycle at least 55 % of municipal solid waste (MSW) for 2025. Chapter 2.2 assesses the likelihood for Czechia to achieve the overall packaging waste and specific packaging materials' recycling targets for 2025. Chapter 2.3 examines the prospects for Czechia to landfill less than 10 % of the generated municipal solid waste by 2035. The official early warning assessment for the landfilling target is only due in 2032 and accordingly, the assessment contained in Chapter 2.3 is only preliminary.

1.3 Member State profile – context parameters

Municipal waste generation and treatment

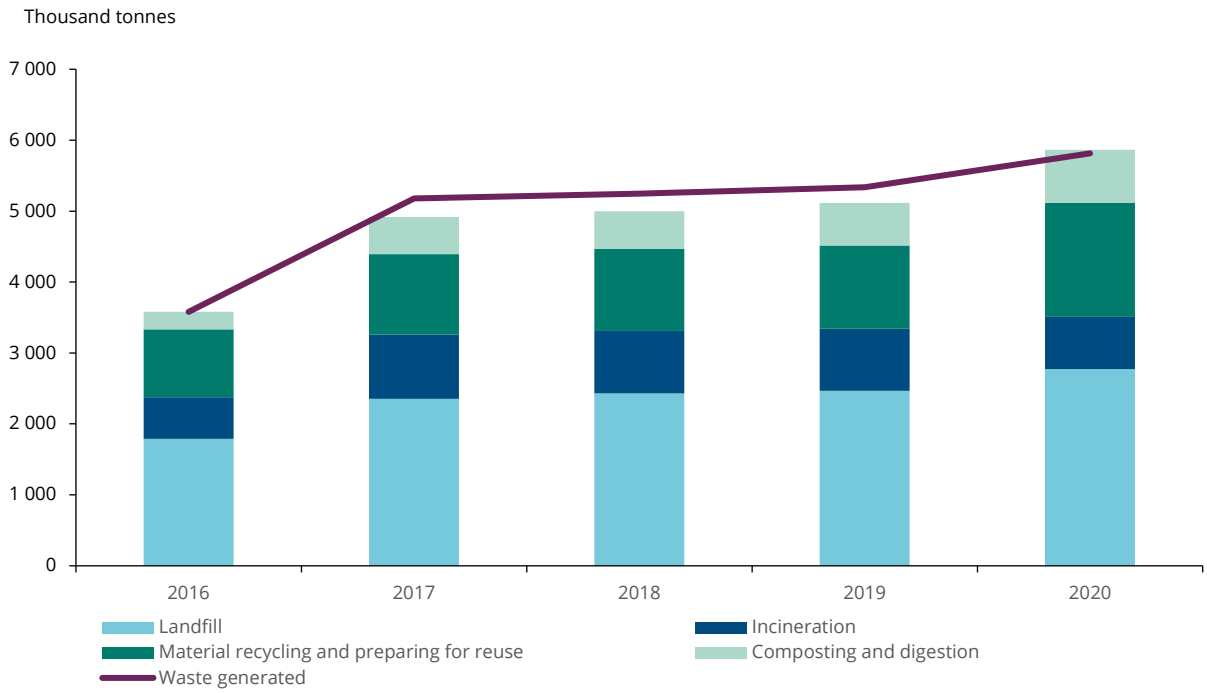
Czechia has managed to increase recycling rates over the past ten years, diverting today 40.5 % of the municipal solid waste (MSW) generated to recycling (including composting/digestion), while 47.7 % of municipal waste is landfilled and 12.6 % incinerated (mainly with energy recovery) (Figure 1.1). Municipal waste generation has increased in the period 2017-2019. In 2020, 1,2% more waste was reported as treated than has been generated.

The Czech Ministry of Environment (MoE) uses data provided by CENIA, the Czech Environmental Information Agency, which in the past deviated significantly from the data reported to Eurostat by the Czech Statistical Office (CSO). Since reference year 2020, data is reported to Eurostat by the Ministry of the Environment. Data provided by the Czech Statistical Office (until 2019), are based on the collection of selected reporting units and the output data are produced using statistical imputation methods. Data from the Waste Management Information System managed by the Ministry of the Environment usually shows higher waste amounts and higher recycling rates (EC, 2019b). The latter data, based on the collection of administrative data from waste producers and waste processors according to national waste legislation, are used in official policy documents such as the Waste Management Plan 2015–2024, and for reporting compliance with EU waste targets, i.e. the WFD, Landfill and Packaging and Packaging Waste Directives (EEA, 2016).

However, due to the cooperation between the MoE and the CSO, the differences between the two datasets have been strongly reduced. CSO uses data from the MoE's system and CSO changed the methodological approach. Changes in the methodological approach were approved by Eurostat (Ministry of the Environment, 2021).

According to Eurostat data, Czechia generated 5.8 million tonnes of municipal waste in 2020 (Figure 1.1). This corresponds to 543 kg/cap, slightly above the (estimated) EU average of 505 kg/cap. There is a break in the time series of data reported to Eurostat between 2016 and 2017 (Eurostat, 2022a), therefore the trend can only be analysed before and after this break. This break is due to the changed definition of municipal waste in line with the Waste Framework Directive (WFD), which has been fully applied since 2017. Until 2016 only waste collected by municipalities was reported, afterwards also waste from companies similar to household waste is included (Ministry of the Environment, 2021).

Figure 1.1 Municipal waste generation and treatment in Czechia between 2016 and 2020, in thousand tonnes



Notes: Estimates for 2016, break in time series in 2017, change in methodology in 2020.

Source: Eurostat (2022a)

Legal Framework

The key legislation governing waste management in Czechia is the Waste Act and the Act on End of Life Products, both adopted in 2020 and effective from 1 January 2021. 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, and the Waste Act and Act on End of Life Products predominantly transpose the related EU Directives. In Czechia there are Extended Producer Responsibility (EPR) systems for specific waste streams in place, such as packaging, batteries, WEEE, tyres, and solar panels.

On 1 January 2021, the new Waste Act came into force. In line with the targets set in the Waste Framework Directive, the Waste Act sets targets to increase the level of preparation for reuse and recycling of municipal waste to at least 55 % of the total amount of municipal waste generated by 2025, to at least 60 % by 2030 and to at least 65 % by 2035. According to the new Waste Act the landfill tax will gradually increase and a landfill ban for recyclable, recoverable and mixed municipal waste from 2030 onwards was introduced (Ministry of the Environment, 2021).

Packaging waste is governed by a range of specific legislation, including Act No. 477/2001 Coll. on Packaging, Decree No. 116/2002 Coll. on marking returnable packaging, new Decree No. 30/2021 Coll. on the scope and manner of keeping records of packaging and reporting the data from these records, Government order No. 111/2002 Coll. specifying the amount of the deposit on selected types of returnable packaging (Ministry of the Environment of the Czech Republic, 2021b).

Waste management plan(s)

In Czechia, the key strategic document governing waste management is the Waste Management Plan (WMP) for 2015-2024 (Ministry of the Environment, 2014), which was adopted in 2014. An updated national plan was adopted by the Czech Government in May 2022 (Ministry of the Environment, 2022).

The previous Waste Act - Act No. 185/2001 Coll. on Waste – obliged municipalities to have waste management plans in place if the municipality produced more than 10 tonnes of hazardous waste or 1000 tonnes of non-hazardous waste per year. The municipal WMP had to comprise a period of five years. Currently many municipalities have WMPs in place and there are 13 regional WMPs in place (Ministry of the Environment, 2021).

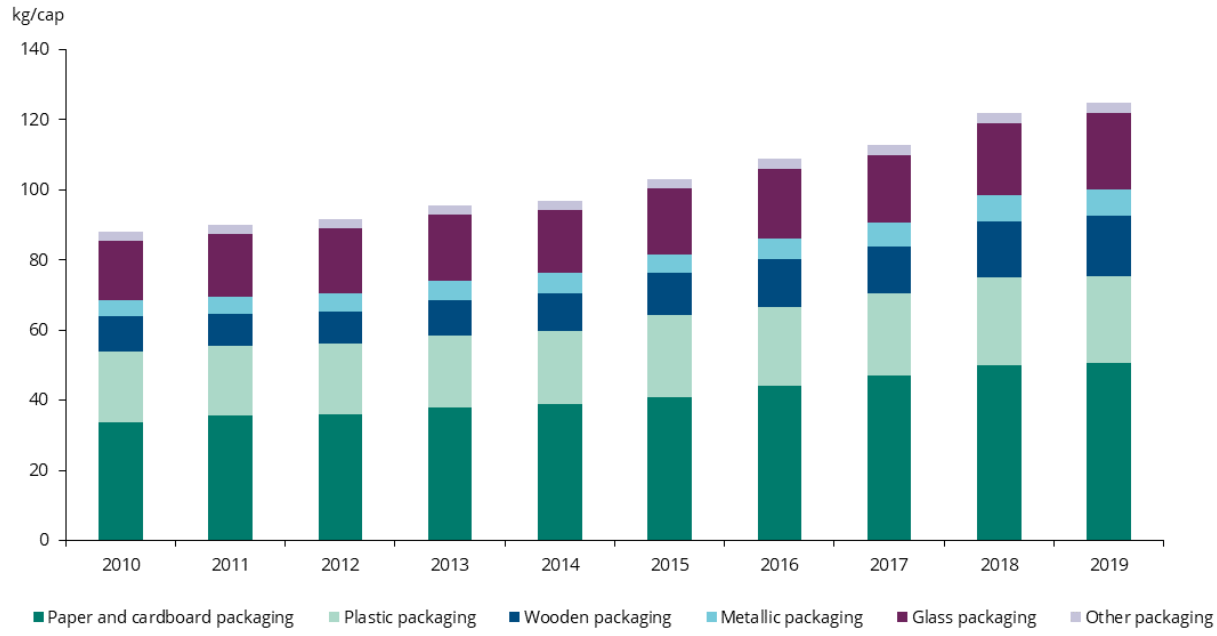
The national plan sets out the objectives and targets for different waste treatment methods and the optimal ways of achieving them.

All regional WMPs must be in line with the national WMP. For example, the regional WMPs set out a strategy for the reduction of biodegradable waste sent to landfills complying with the requirements of the national WMP and the objectives of EU Landfill Directive, and this is being gradually implemented.

Packaging waste generation and treatment

In Czechia 1.3 million tonnes (125 kg/cap) of packaging waste were generated in 2019, which is well below the EU average of 177 kg/cap. Packaging waste generation of all packaging waste materials increased, resulting in a growth of total packaging waste with 31 % from 88 kg/cap in 2010 to 125 kg/cap in 2019 (Figure 1.2).

Figure 1.2 Packaging waste generation in Czech Republic between 2010 and 2019, in kg per capita



Source: Eurostat (2022b)

Capture rates for recyclables

The capture rate is a good performance indicator of the effectiveness of the separate collection system. The capture rate is calculated by dividing the separately collected weight of a certain material for recycling by the weight of the material in total municipal waste. For Czechia, Table 1.1 shows the calculated capture rates for the different waste fractions:

Table 1.1 – Capture rates for different waste fractions in Czechia

	Residual waste composition (%)([b])	Residual waste composition (tonnes)([a])	Separately collected amounts (tonnes)([b])	Materials in total MSW (tonnes)	Capture rates (%)
Reference year	2018	2019	2019	2019	2019
Mixed municipal waste, total		2 787 356*			
Paper and cardboard	8.7 %	242 500	1 089 087	1 331 587	82 %
Metals	2.5 %	69 684	329 928	399 612	83 %
Glass	4.0 %	111 494	201 813	313 307	64 %
Plastic	10.1 %	281 523	307 011	588 534	52 %
Bio-waste	30.0 %	836 207	878 405	1 714 612	51 %
Textiles	2.1 %	58 534	36 779	95 313	39 %
Wood	1.0 %	27 874	153 667	181 541	85 %

([a]) Note: Share of material in residual waste (household waste only) multiplied with the amount of residual waste in 2019 as reported in the questionnaire by the Ministry of the Environment (2021)

([b]) Source: As reported in the EEA-ETC/WMGE questionnaire by the Ministry of the Environment (2021)

This indicates that there is especially room for improvement to capture higher shares of the generated waste textiles, bio-waste, plastics and glass waste.

2 Success and risk factors likely to influence future performance

2.1 Target for preparing for reuse and recycling of municipal waste

This chapter aims at assessing the prospects of Czechia to achieve the **55 % preparing for reuse and recycling target** for municipal waste in 2025. For a detailed description of the methodology followed, the development of success/risk factors and their impact on recycling, please consult the Methodology report (ETC/CE & ETC/WMGE, 2022).

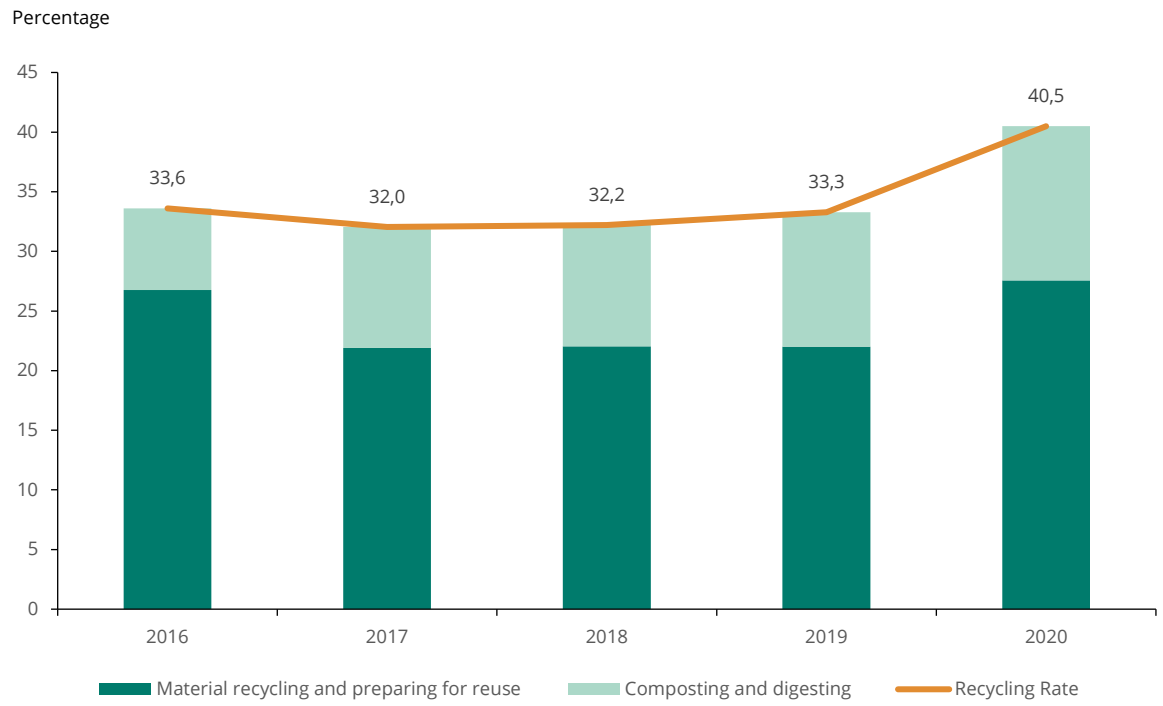
2.1.1 Current situation and past trends

SRF MSWR-1.1: Distance to target

The overall recycling rate of Czechia shows a steady increase mainly driven by increasing composting/digestion (Figure 2.1).

In this analysis the recycling rate is calculated by dividing the summed amounts of recycling of materials and of composting/digestion by the total generated amounts. The data source used is the Eurostat data set *Municipal waste by waste management operations [env_wasmun]* (following the OECD/Eurostat Joint Questionnaire); Data reported by Member States according to Article 10.2(a) of the Waste Framework Directive are not used for this assessment as the reporting methods differ by Member State, resulting in a lack of comparability between Member States. The data source used here is assumed to be the best available proxy, given that data in accordance with the rules on the calculation of the attainment of the targets defined in Article 11a are not yet available.

Figure 2.1 Recycling rate in Czechia between 2016 and 2020, in percentage



Note: Estimates for 2016; break in timeseries in 2017; change in methodology in 2020.
Source: Eurostat (2022a)

The actual distance to the target for the most recent data point is a key factor determining the likelihood of meeting/not meeting the target. The closer the Member State is to the target already, the more likely it becomes that the target will be met. In 2020, 27.8 % of the materials was reported to be recycled as material and 12.9 % went to composting and digesting, resulting in a total recycling rate of 40.5 %. This means that Czechia is still 14.3 percentage points away from reaching the 2025 target of 55 %.

The Czech authorities indicate that the data reported for the reference year 2020 already correspond to the new reporting rules.

Summary result

Distance to target 5 - 15 percentage points	The recycling rate was 40.5 % in 2020, which is 14.5 percentage points below the target.
Robustness of the underlying information	According to the reported data, in 2020, 1.2 % more waste has been treated than was generated. This could be due to temporary storage.

SRF MSWR-1.2: Past trend in municipal solid waste recycling rate

The recycling rate (past trend) over the last four years has increased from 32.0 % in 2017 to 33.3 % in 2019, by 1.3 percentage points (Figure 2.1). Due to the break in the time series in data reported to Eurostat between 2016 and 2017 for generated and treated waste, and the change in reporting methodology in 2020, only the time period between 2017 and 2019 is used for this assessment.

Summary result

RR and increase in last 5 years < 10 percentage points	The recycling rate in the period 2017-2019 has increased by 1.3 percentage points, and the recycling rate in 2020 is reported to be at 40.5 %.
Robustness of the underlying information	There is a break in the time series data between 2016 and 2017 for generated and treated waste in the Eurostat data set, and 2020 data are not fully comparable with data before 2020, therefore only data 2017-2019 have been used for calculating the trend.

2.1.2 Legal instruments

SRF MSWR-2.1: Timely transposition of the revised Waste Framework Directive into national law

Timely transposition of the Waste Framework Directive as amended by Directive 2018/851 into national law within the foreseen period is key for a waste management system in line with EU requirements.

In Czechia, the amended Waste Framework Directive (WFD) has been transposed into national law mainly via the New Waste Act (No. 541/2020 Coll.), effective as of 1 January 2021 and via the New Act on End-of-life products (No. 542/2020 Coll.), effective from 1 January 2021. According to the information received from the European Commission, full transposition was reached in January 2021, so less than 12 months after the deadline of 5July 2020.

Summary result

Transposition with a delay of less than 12 months	In Czechia , the amended WFD has been fully transposed with a delay of less than 12 months after the deadline.
Robustness of the underlying information	Credible information received from the European Commission (status as of 12 November 2021), and Czech authorities through the EEA-ETC/WMGE questionnaire

SRF MSWR-2.2: Responsibilities for meeting the targets, and support and enforcement mechanisms, e.g. tools, fines etc.

Clearly defined responsibilities, enforcement and support mechanisms for meeting the targets across different entities and governance levels are important for achieving high recycling rates. The clearer the responsibilities for meeting the targets and accountability for failing the targets are, the higher the chance that the targets will be met.

The following authorities and other stakeholders have certain responsibilities that influence the recycling rate of generated municipal solid waste (Ministry of the Environment, 2021):

- National authority - Ministry of the Environment
- Local authorities – Municipalities,
- Regions - Regional authorities,
- Producer Responsibility Organization (PRO) - EKO-KOM for packaging and other PROs for other end-of-life products under EPR.

The responsibilities of national and local authorities regarding meeting the targets for recycling of municipal waste are set out in Czech legislation, namely in Act no. 541/2020 Coll. on Waste (Waste Act) (Czech Republic, 2020).

The Waste Act sets targets to increase the level of preparation for reuse and recycling of municipal waste to at least 55 % of the total amount of municipal waste generated in Czechia by 2025, to at least 60 % by 2030 and to at least 65 % by 2035. Moreover, section 59 (3) of the new Waste Act stipulates new targets for separate collection to be met by municipalities. They are obliged to ensure that at least 60 % of the total amount of municipal waste generated is separately collected in 2025 and the following years, at least 65 % in 2030 and at least 70 % in 2035 and the following years.

Section 95 of the Waste Act obliges municipalities to report on their waste production and management.

The method of calculating the achievement towards the target for separate collection and the reporting form for municipalities to report on these targets are provided in Decree No. 273/2021 Coll. on the Details of Waste Management (Ministry of the Environment, 2021).

If a municipality fails to meet the targets set in section 59 (3) of the Waste Act it commits a misdemeanour according to section 122 (1) c) of the Waste Act. For committing such a misdemeanour by a municipality, a fine can be imposed of up to CZK 200 000 by the Czech Environmental Inspectorate or the municipal authority of a municipality with extended powers. As this is a new obligation set in the Waste Act with the effect as of 1 January 2021, it has not been enforced yet (Ministry of the Environment, 2021).

For packaging waste, the Ministry of the environment sets out the legislative obligations and targets. The Producer Responsibility Organization (PRO) EKO-KOM manages packaging waste on behalf of business entities placing packaging on the market in Czechia who have to fulfil the take back and recovery obligation. If the PRO fails to meet the targets, the level of fines is between CZK 50 000 to

CZK 10 000 000. The fine depends on the deviation from the target, the reason for not meeting the target and possible non-fulfillment of other legal obligations of the PRO. Producers do not pay fines for non-compliance by the PRO. To date the PRO EKO-KOM has not been penalized yet. The control authority is the Czech Environmental Inspectorate. The EPR systems are controlled by the Ministry of the Environment (Ministry of the Environment, 2021).

Moreover, there are support tools and mechanisms in place to improve the efficiency and performance of the responsible entities influencing the recycling rate of municipal solid waste and packaging waste. As of 1 January 2021 a fee for depositing recoverable waste in landfills has increased to 800 CZK/t and will gradually increase up to 1850 CZK/t until 2029 (Ministry of the Environment, 2021).

According to section 157 of the Waste Act, until 2029, municipalities may pay a lower fee (500 CZK/t) 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 and in 2022 it is 190 kg of municipal waste per inhabitant of the municipality (200 kg in 2021) (Ministry of the Environment, 2021). 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 and motivate its citizens to produce less mixed residual municipal waste (Ministry of the Environment, 2021).

The Czech Ministry of the Environment also supports, with the help of EU structural grants from the Operational Programme Environment, activities and projects of municipalities that lead to construction and modernization of equipment for collecting, sorting and treating of municipal waste, e.g. building new and upgrading existing collection sites, as well as projects for sorting lines and with follow-up waste treatment technologies (Ministry of the Environment, 2021).

With respect to packaging waste, there is a subsidy program in place for the construction of recycling capacities or capacities for waste sorting. Operational and financial support is provided by the EPR system EKO-KOM (Ministry of the Environment, 2021).

In summary, responsibilities are well defined, support mechanisms are in place and there are direct consequences if the targets are not met.

Summary result

Clearly defined responsibilities, enforcement and good set of support mechanisms for meeting the recycling targets	Responsibilities are defined and support mechanisms are in place, and there are direct consequences if the targets are not met.
Robustness of the underlying information	Credible information received from the Czech authorities through the EEA-ETC/WMGE questionnaire. However, there is no information on whether the enforcement mechanisms are being used.

2.1.3 Economic instruments

SRF MSW-3.1: Taxes and/or ban for landfilling residual- or biodegradable waste

Bans and taxes on landfilling of residual municipal waste can help to discourage strong reliance on residual waste treatment and thus support recycling.

In Czechia , a landfill tax was introduced in 1992. The basic tax rate for municipal waste has been CZK 500 (EUR 20) per tonne since 2009. According to the new Waste Act, in force since 1 January 2021, the landfill tax gradually increases from CZK 800 (EUR 32) per tonne in 2021, CZK 900 (EUR 36) per tonne in 2022 to CZK 1850 (EUR 73) per tonne in 2029 for recoverable waste (Ministry of the Environment, 2021). According to the Waste Management Plan 2015-2024, the increase of the landfill tax to CZK 1850 was foreseen to be implemented already in 2024 but it has been delayed to 2029.

There are also other landfill taxes for other types of waste, namely for residual waste, hazardous waste, selected technological waste and remediation waste. Landfill tax rates are set out in sections 103 – 110 of the Waste Act (Czech Republic, 2020). The tax also has to be paid for the outputs of mechanical – biological treatment (MBT) and the residues from sorting plants (Ministry of the Environment, 2021).

There is a tax exemption for municipalities who do not have to pay for landfilling of recoverable waste if a certain maximum amount is not exceeded. In 2021 the maximum amount was 200 kg of municipal waste per inhabitant of the municipality, decreasing to 190 kg in 2022. The amount of waste exempted from this fee decreases over time. Recoverable waste is defined in section 40 (1) in the Waste Act. It is waste which calorific value in dry matter is higher than 6.5 MJ/kg, waste which exceeds the limit value of the biological stability parameter AT4 10 mg O_2/g of dry matter or waste which can be recycled efficiently, given the current state of scientific and technical progress (set in Annex 4 point E. in the Decree No. 273/2021).
The reason for the exemption is to give time to municipalities to gradually transfer their waste management systems and prepare for a landfill ban. Also municipalities and their citizens should be motivated to increase separate collection of recyclable components of municipal waste and to produce less municipal waste that would be landfilled so they would have to pay only the lower fee (CZK 500) for landfilling their municipal waste (Ministry of the Environment, 2021).

According to the new Waste Act, from 1 January 2030 onwards, a landfill ban will be introduced for waste which calorific value in dry matter is higher than 6.5 MJ/kg, waste which exceeds the limit value of the biological stability parameter AT4, as set out in Annex 10 of the Waste Act, or waste which can be recycled efficiently, given the current state of scientific and technical progress, as specified in Section 40 (1) of the Waste Act (Czech Republic, 2020).

Moreover, from 1 January 2021 separately collected municipal waste suitable for re-use or recycling, in particular paper, plastics, glass, metals, textiles and bio-waste cannot be landfilled anymore, with the exception of waste generated during processing, provided its calorific value in dry matter is lower than 6.5 MJ/kg and it meets the criteria laid down by the Ministry of the Environment (Section 36 (5) of the Waste Act). There are some other types of waste that cannot be landfilled anymore, as stipulated in section 41 (3) of the Waste Act (Ministry of the Environment, 2021).

Summary result

Landfill tax > 30 EUR/t([a]) with escalator	In Czechia the current landfill tax amounts to CZK 900 (corresponding to 47.2 EUR/t rescaled based on purchasing power parities) and there is a landfill ban for separately collected waste in place. The landfill tax will increase gradually to CZK 1850 by 2029. However, exemptions to the tax apply. A landfill ban for recyclable, recoverable and mixed municipal waste will apply from 2030 onwards.
Robustness of the underlying information	Credible information received from the Czech authorities through the EEA-ETC/WMGE questionnaire.

([a]) Note: Rescaled based on purchasing power parities Eurostat (2020a)

SRF MSWR-3.2: Taxes on municipal waste incineration

Taxes on incineration of residual municipal waste can help to discourage strong reliance on residual waste treatment and thus support recycling.

Currently there is no incineration tax in place in Czechia and there is also no incineration tax planned.

The Czech Ministry of the Environment is of the opinion that an incineration tax does not significantly support recycling in Czechia at the moment, because incineration and energy recovery of municipal waste was at 12 % in 2020 in Czechia, significantly below the EU average which is around 27 %. On the other hand the landfilling of municipal waste was at 47.7 % in 2020. Therefore the main issue for the Czech Republic in the following years is to address the high level of landfilling, not energy recovery. Therefore, the Czech Ministry of the Environment does not see the need to introduce an incineration tax at the moment as the incineration (with energy recovery) of the municipal waste is currently not seen as a barrier for recycling of MSW. If the situation changes, the Czech Ministry of the Environment is ready to revise its position regarding the introduction of an incineration tax in the mid-term horizon (Ministry of the Environment, 2022).

Summary result

No incineration taxes	Currently there is no incineration tax in place in Czechia.
Robustness of the underlying information	Credible information received from the Czech authorities through the EEA-ETC/WMGE questionnaire.

SRF MSWR-3.3: Pay-as-you-throw (PAYT) system in place

PAYT systems are designed to incentivize citizens to make a bigger effort in separating their waste at source. However, a PAYT system should be designed with the appropriate level of source separation encouragement to ensure that citizens do not misplace waste in recycling bins in order to avoid residual waste charges. Overall, PAYT usually has a positive effect on source separation and thus recycling rates through direct involvement of citizens.

In Czechia, there is a PAYT system in place, covering about 20 % of the population. The PAYT systems are based on container size, weight or volume of waste, frequency of collection and in some municipalities a combination of all those elements. Every municipality decides if and if so, which type of PAYT system it will use to collect waste. Act No. 565/1990 on local fees (section 10i) (Act No. 565/1990 on local fees, 1990) is the legislative basis for municipalities for setting the fees for municipal waste collection and disposal services (Ministry of the Environment, 2021).

Summary result

Less than 50 % of the population covered by PAYT	In Czechia, PAYT systems are in use, but covering only about 20 % of the population.
Robustness of the underlying information	Credible information received from the Czech authorities through the EEA-ETC/WMGE questionnaire.

2.1.4 Separate collection system

SRF MSWR-4.1: Convenience and coverage of separate collection systems for the different household waste fractions

Separate collection systems are a key enabler for high recycling rates and for collecting recyclables at adequate quality. Generally, the more convenient and accessible these systems are for their users, the better results they deliver, The assessment methodology categorises different types of collection systems (door-to-door, bring points with a density of > 5 per km^2, bring points with a density of < 5 per km^2, civic amenity site) for assessing the degree of convenience, and differentiates between cities (densely populated), towns and suburbs (intermediate densely populated) and rural (thinly populated areas). It then calculates which share of the population is served by which type of system. The assessment is done on a material basis and taking into account the different materials according to their average share in municipal waste. This is described in more detail in the methodology (ETC/CE & ETC/WMGE, 2022).

For Czechia, according to the most recent data, the percentage of households living in cities is 33.6 %, in towns and suburbs 33.3 % and in rural areas 33.1 % (Eurostat, 2021a).

The Czech authorities report that according to the Waste Act, municipalities are obliged to accept all municipal waste generated on its territory by citizens and to designate locations for separate collection of municipal waste, covering, as a minimum, hazardous waste, paper, plastics, glass, metals, bio-waste, edible oils and fats and, as of 1 January 2025, also textiles (Czech Republic, 2020). Every municipality decides individually which system it will use to separately collect each fraction of municipal waste. The annual amount of separately collected biowaste has significantly increased during last years.

Most common is a combination of (high-density) bring points and civic amenity sites (Ministry of the Environment, 2021). Paper and cardboard, ferrous metals, aluminium, composite packaging and glass are mainly collected via high-density bring points and civic amenity sites and in less densely populated areas and to some extent also via door-to-door collection, both separately and co-mingled. According to data for 2020, there are over 558 000 containers for separated fractions of MSW, resulting in an average distance of 90 m (= 130 steps) for citizens, and 99 % of the population of Czechia is covered (Ministry of the Environment, 2021). Wood is exclusively collected via civic amenity sites across the country. Textiles and WEEE are mainly collected via bring points and civic amenity sites (Ministry of the Environment, 2021). According to the Czech authorities, currently 63 % of Czech municipalities collect textiles. There are 6 240 containers for textiles in the municipalities. For WEEE, there are currently 37 766 collection bring points in the Czech Republic (Ministry of the Environment, 2022).

Door-to-door collection mainly exists in towns, suburbs and rural areas, while in densely populated areas door-to-door collection is limited to residual waste. In towns, suburbs and rural areas, residual waste is mainly collected via high-density bring points and by door-to-door systems.

The collection systems used in Czechia do not distinguish between packaging and non-packaging waste, and the Producer Responsibility Organisations (PROs) pay municipalities for the collection of packaging waste. To determine the PROs' financial contribution to the municipalities, the share of packaging in the separately collected waste is analysed.

According to the Act on End of Life Products, the manufacturers of electrical and electronic equipment (EEE) intended for use in households are obliged to set up and finance at least one public take back point in each municipality, city district or city part with more than 2 000 inhabitants and for each group of electrical equipment put on the market. This applies for any municipality which expresses an interest in establishing a public take back point or in any point of sale or in its immediate vicinity, where EEE is intended for household use. A national website provides all information on all locations for the collection of WEEE[1] (Ministry of the Environment, 2021).

In cities, towns, suburbs, and rural areas bio-waste, including both food and garden waste, is collected separately to some extent via door-to-door collection, but mainly via civic amenity sites and to some extent at bring points (Ministry of the Environment, 2021).

Table 2.1 gives an overview of the collection system in Czechia.

Table 2.1 Characterisation of the collection system in Czechia

	Cities (densely populated areas)					**Towns and suburbs** (intermediate density areas)					**Rural areas** (thinly populated areas)			
	Door-to-door - separate	Door-to-door - co-mingled	Bring point (>5 per km²)	Bring point (<5 per km²)	Civic amenity site	Door-to-door - separate	Door-to-door - co-mingled	Bring point (>5 per km²)	Bring point (<5 per km²)	Civic amenity site	Door-to-door - separate	Door-to-door - co-mingled	Bring point	Civic amenity site
Residual waste	x		xx			x		xx			x		xx	
Paper and Cardboard			xx		xx	x	x	xx		xx	x	x	xx	xx
Ferrous metals			xx		xx	x	x	xx	x	xx	x	x	x	xx
Aluminium			xx		xx	x	x	xx	x	xx	x	x	x	xx
Glass			xx		xx	x	x	xx		xx	x	x	xx	xx
Plastic			xx		xx	x	x	xx		xx	x	x	xx	xx
Bio-waste			x	x	xx	x		x	x	xx	x		x	xx
food (especially edible oils)			x		xx			x	x	xx			x	xx
garden			x	x	xx	x		x	x	xx	x		x	xx
Textiles			x	xx	xx			x	xx	xx			xx	xx
Wood					xx					xx				xx
WEEE				xx	xx			x	xx	xx			x	xx
Composite packaging				xx	xx	x	x		xx	xx	x	x	xx	xx

Note: xx: dominant system; x: other significant systems. Grey cells indicate high convenience collection systems.

Source: Ministry of the Environment (2021)

[1] https://isoh.mzp.cz/registrmistelektro/

Summary result

Paper and cardboard	A high share of the population is covered by high convenience collection services	In cities, high-density collection points are in place for paper and cardboard. In less densely populated areas paper and cardboard are to some extent also collected via door-to-door collection, both separately and co-mingled.
Metals	A high share of the population is covered by high convenience collection services	In cities, high-density collection points are in place for metals. In less densely populated areas metals are to some extent also collected also via door-to-door collection, both separately and co-mingled.
Plastics	A high share of the population is covered by high convenience collection services	In cities, high-density collection points are in place for plastics. In less densely populated areas plastics are to some extent also collected via door-to-door collection, both separately and co-mingled.
Glass	A high share of the population is covered by high convenience collection service	In cities, high-density collection points are in place for glass. In less densely populated areas glass is to some extent also collected via door-to-door collection, both separately and co-mingled.
Bio-waste	A low share of the population is covered by high convenience collection services	For bio-waste, civic amenity sites and to some extent bring points are the dominant way of collection across the country. In some towns, suburbs and in rural areas there are door-to-door collection systems in place which are considered as high convenience for citizens. The collection system of bio-waste is mandatory in every municipality of the Czech Republic
Wood	A low share of the population is covered by high convenience collection services	Wood is only collected via civic amenity sites across the country.
Textiles	A low share of the population is covered by high convenience collection services	Textiles are mainly collected on a voluntary basis by charities and private companies in most cities, towns, suburbs and rural areas via bring points and civic amenity sites.
WEEE	Medium convenience collection services dominate	WEEE is mainly collected via bring points established by producers of EEE and at civic amenity sites. WEEE is also collected in retailers' stores.
Robustness of the underlying information	Credible information received from the Czech authorities through the EEA-ETC/WMGE questionnaire.	

SRF MSWR-4.2: Firm plans to improve the convenience and coverage of separate collection for the different household waste fractions

For paper and cardboard, metals, plastics and glass currently a high share of the population is already covered by high convenience collection points.

Every municipality decides itself on the type of separate collection for different components of municipal waste on its territory. The Ministry of the Environment strongly supports municipalities in their efforts to improve separate collection systems, e.g. through EU structural grants from the Operational Programme Environment (Ministry of the Environment, 2021).

According to the Czech authorities the coverage of separate collection for food waste will be expanded. High intensification of bio-waste collection is planned particularly for kitchen waste from households that is intended to be directed to anaerobic digestion and generation of biogas. In addition, the Ministry of the Environment has launched a study to set up an optimal bio-waste (including food kitchen waste) collection system.

Also the collection of textiles will be expanded. From 1 January 2025 onwards the collection of textiles will be obligatory for municipalities. The collection of textile waste will be organized in the same way as separate collection of other separately collected components of municipal waste. Municipalities will decide if textile waste will be collected via civic amenity sites, bring points or door-to-door collection or a combination of these collection methods. The Czech Ministry of the Environment notes the challenge to find markets for recycled textiles and the need to find solutions for this situation (Ministry of the Environment, 2021).

There are plans to expand the separate collection of food waste, wood and textiles waste, and the plan for implementation for the expansion of separate collection for food waste, wood and textiles waste is set out in the updated Waste Management Plan.

Summary result

Paper and cardboard	N/A (for countries in which a high share of the population is already covered by high convenience collection services)	
Metals	N/A (for countries in which a high share of the population is already covered by high convenience collection services)	The Ministry of the Environment is supporting municipalities to improve the network of collection points for metals, however municipalities will decide about the set-up of the collection services.
Plastics	N/A (for countries in which a high share of the population is already covered by high convenience collection services)	
Glass	N/A (for countries in which a high share of the population is already covered by high convenience collection services)	
Bio-waste	Firm plans to improve the separate collection system, with clear responsible entities and defined targets and timeline	According to the Czech authorities the collection of food waste will be expanded and the plan for implementation is set out in the updated WMP. The collection will be focused on kitchen animal waste from households going to anaerobic digestion (biogas). A larger share of the population is expected to have access to higher convenience collection services.

Wood	Firm plans to improve the separate collection system, with clear responsible entities and defined targets and timeline	The Ministry of the Environment is supporting municipalities to improve the network of collection points for wood, however municipalities will decide about the set-up of the collection services. There are plans to expand the separate collection wood. The plan for implementation for the expansion of separate collection for wood is set out in the updated Waste Management Plan.
Textiles	Firm plans to improve the separate collection system, with clear responsible entities and defined targets and timeline	There are plans to expand the separate collection textile waste. The plan for implementation for the expansion of separate collection for textiles is set out in the updated Waste Management Plan.
WEEE	There are plans to improve the collection service but unclear plan for implementation	Although there are plans to expand the network of bring points in the future, the targets and timeline remain unclear.
Robustness of the underlying information	Credible information received from the Czech authorities through the EEA-ETC/WMGE questionnaire.	

2.1.5 Extended producer responsibility (EPR) and similar schemes

SRF MSWR-5.1: Fee modulation in EPR schemes for packaging

Within EPR schemes, fee modulation (or eco-modulation) is a system with different fees for different types of packaging material and designs. While basic fee modulation, i.e. different fees for the main material groups, are common, advanced fee modulation can create stronger incentives for packaging producers to design for recycling and thus create favourable conditions for higher recycling rates. The level of advancement of the fee modulation is assessed against four criteria that have been selected as benchmarks for a well-designed eco-modulated fee system:

- recyclability, for example differentiating between PET and PS, between different colours of PET, or between 100% cardboard boxes and laminated beverage cartons;
- sortability and disruptors, for example a malus for labels/caps/sleeves made of other materials, which are not fitted for the recycling technologies of the main packaging;
- recycled content; and
- if there is a transparent compliance check by the PRO that producers report correctly.

In Czechia, there is one EPR scheme, EKO-KOM, in place for packaging waste from households and non-households, including packaging made from paper and cardboard, ferrous metals, aluminium, glass, plastic, wood and composite packaging. Fees are levied only on single-use packaging, while there are no fees for reusable packaging (if it is actually reused at 70 %), thus providing an incentive for re-use (EnviWeb, 2021).

The current stagnation in sorting processes efficiency in Czechia is caused by international developments influencing foreign demand for sorted materials. This problem is approached by EKO-KOM by higher payments for processing of sorted materials (EnviWeb, 2021).

Advanced fee modulation has been implemented for plastic packaging since 1 July 2021 (Ministry of the Environment, 2021). According to information on the website of EKO-KOM, there is only fee modulation for plastics in place, based on container size, rigid vs flexible and transparent vs coloured for PET, so only taking recyclability into account. The other fractions all have uniform fees (EKO-KOM,

2021). However, there is a plan to find some possible eco-modulation approaches also for paper packaging. The EPR system is controlled by the Ministry of the Environment. The Czech Environmental Inspectorate checks for compliance and correct reporting by controlling the producers that are to fulfil the take back and recovery targets individually (Ministry of the Environment, 2021).

Summary result

At least one packaging fraction([a]) has an advanced fee modulation that meets at least two assessment criteria	In Czechia there is advanced fee modulation only for plastic packaging for the criterion 'recyclability' in place. Moreover, there are compliance checks for all fractions in place.
Robustness of the underlying information	Credible information received from the Czech authorities through the EEA-ETC/WMGE questionnaire.

([a]) Note: Paper and cardboard, ferrous metals, aluminium, glass, plastic

2.1.6 Treatment capacity for bio-waste

SRF MSWR-6.1: Capacity for the treatment of bio-waste

Bio-waste is the largest single waste fraction in municipal waste, and adequate treatment capacity needs to be made available.

The overall residual waste in Czechia amounts to 2 787 356 tonnes in 2019 and the reported share of bio-waste in residual waste is 30 %. This means that a total of 836 207 tonnes of bio-waste is present in residual waste (Table 1.1).

Adding the volumes reported as separately collected bio-waste in 2019 of 878 405 tonnes, results in an overall amount of generated bio-waste of 1 714 611 tonnes, excluding home-composted amounts. This means that about 51 % of the generated bio-waste were captured separately in 2019 (own calculations, Table 1.1).

The available treatment capacity for bio-waste in Czechia is reported to be 2.5 million tonnes per year (Ministry of the Environment, 2021). There is sufficient bio-waste treatment capacity to treat all generated bio-waste. However, in some cases the distance to the treatment facilities for bio-waste might be an issue (Ministry of the Environment, 2021).

To facilitate the prevention of food waste and to promote food redistribution, since 2014, the 15 % VAT rate applied to donated food is abolished. Since 2018, stores of more than 400 m^2 are obliged to donate unsold but still consumable food to charitable organisations (EEA, 2020).

Summary result

Enough bio-waste treatment capacity for 80 % of generated municipal bio-waste	The bio-waste treatment capacity in Czechia is above 80 % of total generated municipal bio-waste.
Robustness of the underlying information	Credible information received from the Czech authorities through the EEA-ETC/WMGE questionnaire.

SRF MSWR-6.2: Legally binding national standards and Quality Management System for compost/digestate

To create a market for compost and digestate, compost should be of a good quality for use as a soil improver or fertilizer. Legally binding standards provide guarantees regarding the quality of the compost/digestate produced. A quality management system aims at addressing different elements of a production process to ensure a stable and high-quality output (product) which helps toward reaching a defined quality for the product.

Czechia is reported to have national standards for compost quality and a quality management system under development, which have, however, not reached maturity yet (EEA, 2020).

Compost quality is regulated by Decree No. 273/2021 Coll. (Decree No. 273/2021 Coll., 2021) and by the Fertilizer legislation – Decree No. 474/2000 Coll. (Fertilizer legislation – Decree No. 474/2000 Coll. -, 2021) - replacing the Decree on the details of biodegradable waste management (use on other land) and Fertilizer legislation (use on arable land).

Summary result

Legally binding national standards for compost/digestate quality in place, and quality management system in place	Czechia has national standards for compost quality in place. There is a quality management system for each approved composting plant.
Robustness of the underlying information	This information is robust based on information provided by the Czech authorities as input to the EEA report on bio-waste (EEA, 2020).

2.2 Targets for the recycling of packaging waste

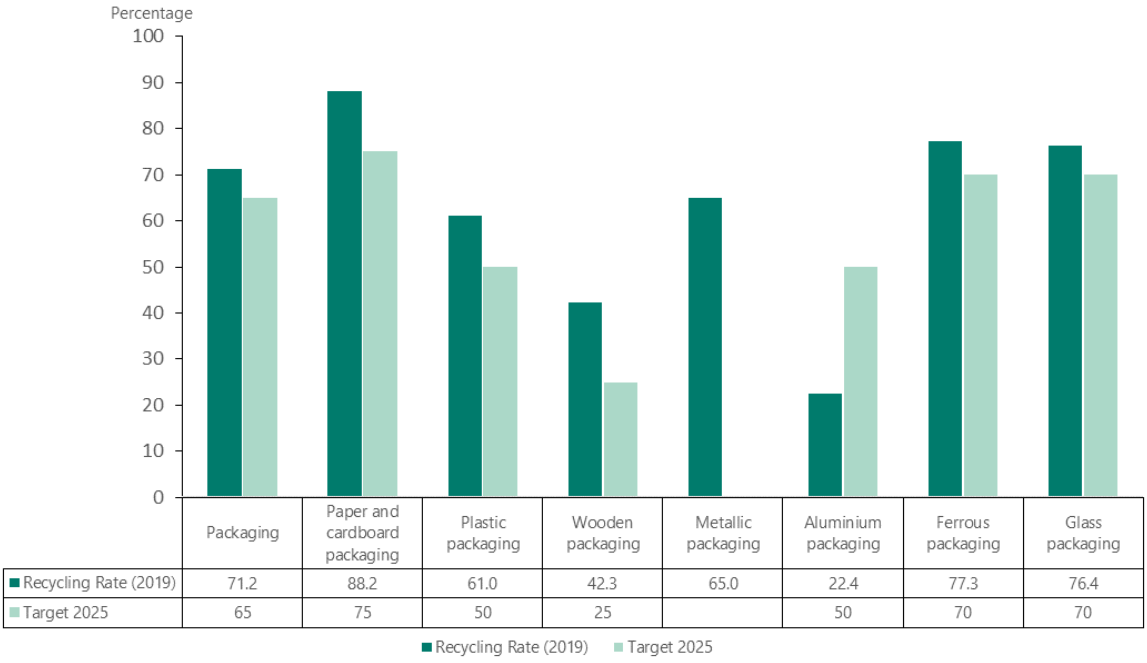
This chapter aims at assessing the prospects of Czechia to achieve the **65 % recycling target for packaging waste** in 2025 as well as the **material specific packaging waste recycling targets** (50 % of plastic; 25 % of wood; 70 % of ferrous metals; 50 % of aluminium; 70 % of glass; 75 % of paper and cardboard). In order to conclude on this likelihood, the analysis takes stock of the status of several factors that are proven to influence the levels of recycling in a country. For a detailed description of the methodology followed, the development of success/risk factors and their impact on recycling, please consult the Methodology report (ETC/CE & ETC/WMGE, 2022).

2.2.1 Current situation and past trends

SRF P-1.1 Distance to target

The actual distance to the target for the most recent data point is a key factor determining the likelihood of meeting/not meeting the target. This analysis is based on data reported by Czechia to Eurostat in accordance with Commission Decision 2005/270/EC as last amended by the Commission Implementing Decision 2019/665 (EC, 2019a), published in the dataset *Recycling rates of packaging waste for monitoring compliance with policy targets, by type of packaging [env_waspacr]*. The latest available data refer to 2019. The performance of Czechia for 2019 is illustrated in Figure 2.2.

Figure 2.2 Packaging recycling rates for Czechia in 2019, in percentage



	Packaging	Paper and cardboard packaging	Plastic packaging	Wooden packaging	Metallic packaging	Aluminium packaging	Ferrous packaging	Glass packaging
Recycling Rate (2019)	71.2	88.2	61.0	42.3	65.0	22.4	77.3	76.4
Target 2025	65	75	50	25		50	70	70

Source: Eurostat (2022c), EU (2018)

According to the packaging waste statistics published by Eurostat (2022c), in 2019, the reported recycling rates of packaging waste were almost all above the 2025 targets except for aluminium packaging. The recycling rates are 71.2 % for total packaging, 76.4 % for glass packaging, 61 % for plastic packaging, 88.2 % for paper and cardboard packaging, 77.3 % for ferrous metals packaging and 42.3 % for wooden packaging. The recycling rate for aluminium packaging lies at 22.4 %, being currently 27.6 percentage points below the 2025 target.

In accordance with Article 6(1a) of the PPWD Czechia plans to apply for a derogation for the target on aluminium packaging, i.e. postponing the deadline for attaining the 2025 target with up to five years (Ministry of the Environment, 2021). Meanwhile, policies foresee a significant expansion of the collection network for metal packaging (Ministry of the Environment, 2021).

For Czechia the data on packaging and packaging waste are acquired by the Ministry of the Environment from relevant entities and from authorized packaging companies and are checked and audited by the EPR system, the MoE and the Czech Environment Inspectorate (Eurostat, 2021b).

However, the recycling rates presented are based on the calculation rules of the Commission Decision 2005/270 before it was amended by the Commission Implementing Decision 2019/665 and will likely differ from the recycling rates to be reported according to the new calculation rules. The new calculation rules will only be mandatory to be used for the reference year 2020 and onwards. A key difference in the new calculation rules compared to the old rules is that the amount of sorted packaging waste that is rejected by the recycling facility shall not be included in the reported amount of recycled packaging waste.

Czechia is still evaluating the impact of the new calculation rules on the recycling rates and no results are available yet, however, the Ministry of the Environment expects an increase in the recycling rate of ferrous metals packaging. There are a few signs that the recycling rates could be lower than currently reported once the new calculation rules kick in: 1) The current reporting of the amounts of packaging generated does not take into account possible underreporting due to, for example, free riding, private imports/exports or amounts below de minimis thresholds but it includes estimates of online sales (Eurostat, 2021b); 2) the reporting of recycled amounts according to the new calculation rules requires deducting losses within the recycling plants, while the available data do not account for these losses. Sorting losses are however deducted.

As a matter of sensitivity analysis, to assess what the impact of these new calculation rules could be (change in calculation point), losses in recycling plants found in literature (EXPRA, 2014) are applied to the packaging recycling rates as reported for reference year 2019:

- Paper and cardboard packaging: decrease by 10 %, from 88.2 % to 79.4 %
- Ferrous metals packaging: decrease by 14 %, from 77.3 % to 66.5 %
- Aluminium packaging: decrease by 14 %, from 22.4 % to 19.3 %
- Glass packaging: decrease by 5 %, from 76.4 % to 72.63 %
- Plastic packaging: decrease by 21 %[2], from 61 % to 48.1 %
- Wooden packaging: decrease by 11 % from 42.3 % to 37.6 %
- Total packaging: Calculated based on the amounts of each packaging material generated and recycled in 2019, the recycling rate would drop from 71.2 % to 63.2 %.

Applying these estimates, the recycling rates for plastics, paper and cardboard, glass, ferrous metals and wooden packaging still remain above the target or at less than five percentage points below. The recycling rate for aluminium packaging would be even further below the target.

[2] This is the weighted recycling loss taking into account the 29 % recycling loss for packaging waste from household sources (66 %) and the 5 % recycling loss for packaging waste from commercial sources (33 %).

Summary result

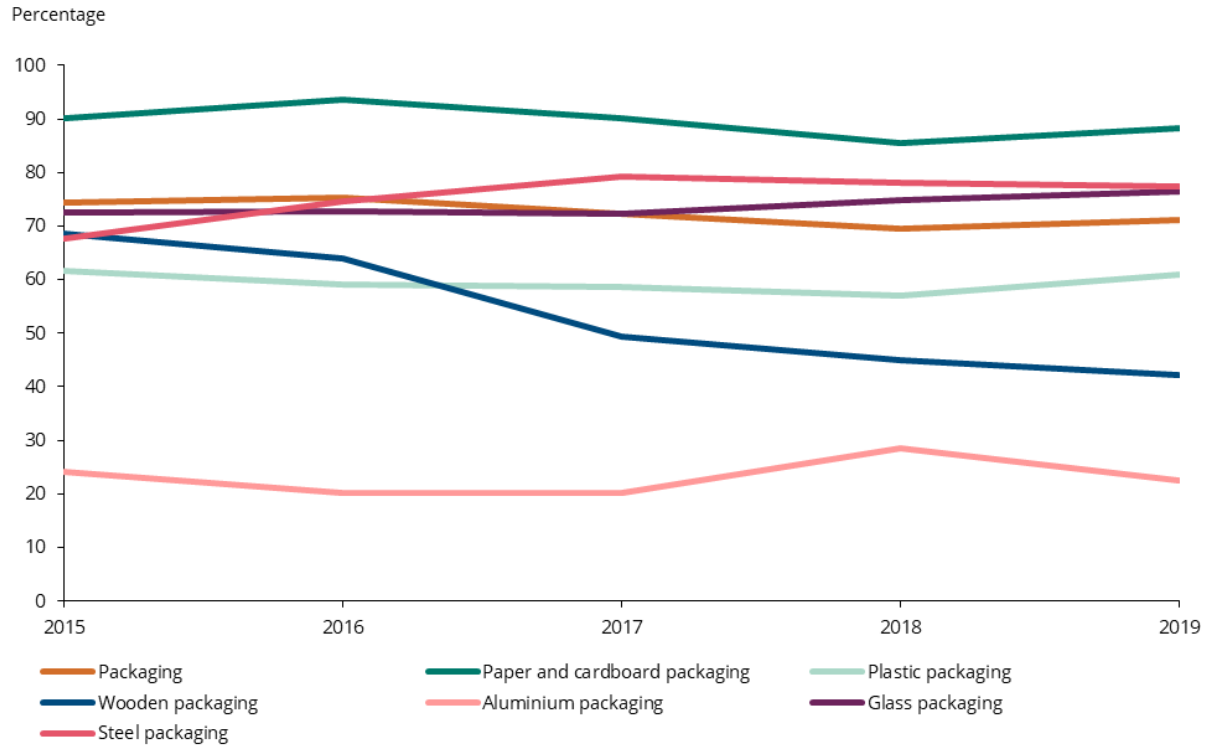
Total packaging	< 5 percentage points below target	Czechia reports a recycling rate of 71.2 %. However, if the new calculation rules were applied (taking into account losses in the recycling plants), the estimated recycling rate would drop to 63.2 %, 1.8 percentage points below the target.
Paper and cardboard packaging	Target exceeded	Czechia reports a paper and cardboard packaging recycling rate of 88.2 %. However if the new calculation rules were applied (taking into account losses in the recycling plants), the estimated recycling rate would drop to 79.4 %, 4.4 percentage points above the 2025 target.
Ferrous metals packaging	< 5 percentage points below target	Czechia reports a recycling rate of 77.3 %. However, if the new calculation rules were applied (taking into account losses in the recycling plants), the estimated recycling rate would drop to 66.5 %, 3.5 percentage points below the target.
Aluminium packaging	> 15 percentage points below target	Czechia reports a recycling rate of 22.4 %. However if the new calculation rules were applied (taking into account losses in the recycling plants), the estimated recycling rate would drop to 19.3 %, 30.7 percentage points below the target. However, Czechia intends to apply for a derogation from the Packaging and Packaging Waste Directive to postpone the deadline for attaining the target, resulting in a derogation target of 35 % for 2025. The distance to the derogated target is 15.7 percentage points.
Glass packaging	Target exceeded	Czechia reports a recycling rate of 76.4 %. However if the new calculation rules were applied (taking into account losses in the recycling plants), the estimated recycling rate would drop to 72.6 %, 2.6 percentage point above the target
Plastics packaging	< 5 percentage points below target	Czechia reports a recycling rate of 61 %. However if the new calculation rules were applied (taking into account losses in the recycling plants), the estimated recycling rate would drop to 48.1 %, 1.9 percentage points below the target.
Wooden packaging	Target exceeded	Czechia reports a recycling rate of 42.3 %. However if the new calculation rules were applied (taking into account losses in the recycling plants), the estimated recycling rate would drop to 37.6 %, 12.6 percentage points above the target.
Robustness of the underlying information		The assessment is limited by the fact that the recycling rates for 2019 reported by Czechia to Eurostat do not yet reflect the new calculation rules, and the impact of the new calculation rules has therefore been estimated based on literature. In addition, data for generated packaging waste might be underreported due to free-riding, lack of estimates for units below the reporting threshold (de minimis) and private imports/exports. This effect is currently not quantified. Czechia intends to apply for a derogation for the target on aluminium packaging, that would result in a derogated target of 35% for 2025. Applying this target would result in a yellow rating for this SRF for aluminium.

SRF P-1.2: Past trend in Packaging Waste Recycling

The development of the historical trend in the recycling rate indicates previous efforts towards packaging waste recycling. In this analysis the recycling rate reported in the Eurostat dataset *Recycling*

rates of packaging waste for monitoring compliance with policy targets, by type of packaging [env_waspacr] (latest data year: 2019) is used. The recycling trends for packaging waste by material in Czechia are illustrated in Figure 2.3.

Figure 2.3 Trend in packaging waste recycling rates in Czechia between 2015 and 2019, in percentage



Source: Eurostat (2022c)

Since 2001 Czechia has implemented an electronic system to report the quantities placed on the market (producer registry) (Top-obaly.cz, 2019).

In Czechia, the total packaging recycling rate decreased from 74.3 % in 2015 to 71.2 % in 2019. The recycling rate for paper and cardboard packaging fluctuated between 85 - 94 % during the last five years. The recycling rate for glass packaging remained relatively stable at around 73 - 76 % between 2015 and 2019 and the recycling rate for plastic packaging remained at approximately 60 % since 2015. For aluminium packaging, the recycling rate slightly decreased from 24.2 % to 22.4 % between 2015 and 2019. The recycling rate for ferrous metals increased from 67.6 % in 2015 to 77.3 % in 2019. The observed 2017 increase in recycling of metal packaging was due to the extension of the collection network for steel materials with a growing share of packaging. There is an integrated collection system for both packaging and non-packaging waste. The increase of recycling of aluminium packaging is due to a significant increase in the density of the collection network for metal packaging within the EPR system (Eurostat, 2020b). The recycling rate for wooden packaging decreased from 68.7 to 42.3 % over the last five years. A key reason for this is the on-going bark beetle calamity in Czechia , which causes problems with recycling of waste wood due to excess of wood on the market (Eurostat, 2020b).

Summary result

Total packaging	RR > 60% and increase in last 5 years < 5 percentage points	The recycling rate decreased by 3.1 percentage points over the past five years and is estimated at 63.2 % if the new calculation rules would be applied (taking into account losses in the recycling plants)
Paper and cardboard packaging	RR > 75%	The recycling rate decreased by 1.9 percentage points over the past five years and is estimated at 79.4 % if the new calculation rules would be applied (taking into account losses in the recycling plants). The recycling rate already exceeds the target.
Ferrous metals packaging	RR > 65% and increase in last 5 years < 5 percentage points	The recycling rate increased by 9.7 percentage points over the past five years and is estimated at 66.5 % if the new calculation rules would be applied (taking into account losses in the recycling plants)
Aluminium packaging	RR < 40% and increase in last 5 years < 10 percentage points	The recycling rate decreased by 1.8 percentage points over the past five years and is estimated at 19.3 % if the new calculation rules would be applied (taking into account losses in the recycling plants)
Glass packaging	RR > 70%	The recycling rate increased by 3.8 percentage points over the past five years and is estimated at 72.6 % if the new calculation rules would be applied (taking into account losses in the recycling plants). The recycling rate already exceeds the target.
Plastics packaging	RR > 45% and increase in last 5 years < 5 percentage points	The recycling rate decreased by 0.7 percentage points over the past five years and is estimated at 48.1 % if the new calculation rules would be applied (taking into account losses in the recycling plants)
Wooden packaging	RR > 25%	The recycling rate decreased by 26.4 percentage points over the past five years and is estimated at 37.6 % if the new calculation rules would be applied (taking into account losses in the recycling plants). The recycling rate already exceeds the target.
Robustness of the underlying information		The assessment is limited by the fact that the recycling rates for 2019 reported by Czechia to Eurostat do not yet reflect the new calculation rules, and the impact of the new calculation rules has therefore been estimated based on literature. The trends over time seem to be robust as there are no breaks in time series indicated.

2.2.2 Legal instruments

SRF P-2.1: Timely transposition of the revised Packaging and Packaging Waste Directive into national law

Timely transposition of the Packaging and Packaging Waste Directive as amended by Directive 2018/852, into national law within the foreseen period is key for a waste management system in line with EU requirements.

In Czechia, the amended Packaging and Packaging Waste Directive has been transposed into national law with delay. In total, 18 legislative documents have been amended, including the Act on Packaging (Act No. 477/2001) and the Act on Waste (Act No 185/2001).

Summary result

Transposition with a delay of less than 12 months	The amended Packaging and Packaging Waste Directive has been transposed with a delay of 6 months. All requirements were fully transposed by January 2021.
Robustness of the underlying information	Credible information received from the European Commission (status as of 12 November 2021) and updated by the Czech Ministry of the Environment during the review of this assessment in April 2022.

SRF P-2.2: Responsibilities for meeting the targets, and enforcement mechanisms, e.g. fines etc.

Responsibilities for meeting the targets, and support and enforcement mechanisms with respect to packaging waste are described in detail in section 2.1.1 under SRF MSWR-2.2.

Summary result

Clearly defined responsibilities, enforcement and good set of support mechanisms for meeting the recycling targets	Responsibilities are defined and support mechanisms are in place, and there are direct consequences for the PROs if the targets are not met.
Robustness of the underlying information	Credible information received from the Czech authorities through the EEA-ETC/WMGE questionnaire.

2.2.3 Economic instruments

SRF P-3.1: Taxes and/or ban for landfilling residual- or biodegradable waste

Bans and taxes on landfilling of residual waste can help to discourage landfilling and thus support recycling, also of packaging waste.

As described in Section 2.1.3 in more detail, Czechia has a landfill tax in place and there is a landfill ban for separately collected waste.

Summary result

Landfill tax > 30 EUR/t([a]) with escalator	In Czechia the current landfill tax amounts to CZK 900 (corresponding to 47.2 EUR/t rescaled based on purchasing power parities) and there is a landfill ban for separately collected waste in place. The landfill tax will increase gradually to CZK 1850 by 2029. However, exemptions to the tax apply. There will be a landfill ban for recyclable, recoverable and mixed municipal waste from 2030 onwards.
Robustness of the underlying information	Credible information received from the Czech authorities through the EEA-ETC/WMGE questionnaire.

([a]) Note: Rescaled based on purchasing power parities Eurostat (2020a)

SRF P-3.2: Taxes on municipal waste incineration

Taxes on incineration of residual waste can help to discourage strong reliance on residual waste treatment and thus support recycling. As described in Section 2.1.3 in more detail, Czechia does not have a waste incineration tax in place.

Currently there is no incineration tax in place in Czechia and there is also no incineration tax planned. The Czech Ministry of the Environment is of the opinion that an incineration tax does not significantly support recycling in Czechia at the moment, because incineration and energy recovery of municipal waste was at 12 % in 2020 in Czechia, significantly below the EU average which is around 27 %. On the other hand the landfilling of municipal waste was at 47.7 % in 2020. Therefore the main issue for the Czech Republic in the following years is to address the high level of landfilling, not energy recovery. Therefore, the Czech Ministry of the Environment does not see the need to introduce the incineration tax at the moment as the incineration (with energy recovery) of the municipal waste is currently not seen as a barrier for recycling of MSW. If the situation changes, the Czech Ministry of the Environment is ready to revise its position regarding the introduction of an incineration tax in the mid-term horizon (Ministry of the Environment, 2022).

Summary result

No incineration taxes	In Czechia, there is no tax on municipal waste incineration.
Robustness of the underlying information	Credible information received from the Czech authorities through the EEA-ETC/WMGE questionnaire.

SRF P-3.3: Packaging taxes

Packaging taxes can support the aim to reduce packaging waste generation and/or to influence the choice of packaging materials and encourage recyclability and eco-design.

In Czechia , there is no packaging tax in place.

Summary result

No packaging taxes	Czechia currently has no special packaging tax in place.
Robustness of the underlying information	Credible information received from the Czech authorities through the EEA-ETC/WMGE questionnaire.

SRF P-3.4: Pay-as-you-throw (PAYT) system in place

As a large share of packaging waste is generated in households, incentivising households to separate packaging waste at source, e.g. by applying PAYT systems, is relevant for meeting the recycling targets for packaging waste.

In Czechia, there is a PAYT system in place, covering about 20 % of the population. The PAYT systems are based on container size, weight or volume of waste, frequency of collection and in some municipalities a combination of all those elements. Every municipality decides if and if so, which type of PAYT system it will use to collect waste. Act No. 565/1990 on local fees (section 10i) (Act No. 565/1990 on local fees, 1990) is the legislative basis for municipalities for setting the fees for municipal waste collection and disposal services (Ministry of the Environment, 2021).

Summary result

Less than 50% of the population covered by PAYT	In Czechia , there is a PAYT system in place, covering only about 20 % of the population.
Robustness of the underlying information	Credible information received from the Czech authorities through the EEA-ETC/WMGE questionnaire.

SRF P-3.5: Deposit return systems

Deposit Return Systems (DRS) generate high capture rates for packaging covered by the system and thus contribute to increased recycling rates.

At the moment, in Czechia there are no mandatory DRS in place but voluntary systems exist for refillable glass beer bottles, plastic crates and wooden packaging. The deposit return system for glass beer bottles is the most significant in terms of volumes (Ministry of the Environment, 2021).

The Czech Ministry of the Environment is currently considering and evaluating the option to introduce DRS for PET bottles and cans. The first round table with relevant stakeholders discussing the possible DRS was held in March 2022 and the second in May 2022 (Ministry of the Environment, 2022).

Summary result

Aluminium drink cans	No DRS for drink cans	Currently in Czechia there are some voluntary schemes for reusable packaging applied, but no mandatory DRS in place.
Glass drink bottles	Voluntary DRS for some glass bottles	
Plastic drink bottles	No DRS for drink bottles	
Plastic crates	Voluntary DRS for some plastic crates	
Wooden packaging	Voluntary DRS for some wooden packaging	
Robustness of the underlying information		Credible information received from the Czech authorities through the EEA-ETC/WMGE questionnaire.

2.2.4 Separate collection system

SRF P-4.1: Convenience and coverage of separate collection for different packaging waste fractions

As a large part of packaging waste comes from households, separate collection systems for households and similar sources are a key condition for achieving high recycling rates of packaging waste and for

collecting recyclables at adequate quality. Generally, the more convenient and accessible these systems are for their users, the better results they can deliver. The material specific assessment considers packaging waste from both household and non-household sources. For assessing the convenience and coverage of separate collection systems for households, the same methodology is used here as described in section 2.1.4.

The separate collection system is described in detail under SRF MSWR-4.1 in section 2.1.4.

The coverage and convenience level for the collection of packaging waste is high, and it targets both household and non-household sources. An obligation for mandatory separate waste collection for non-households is set in section 62 (1) of the Waste Act (Czech Republic, 2020). If a legal or natural person authorised to do business fails to provide locations for separate waste collection pursuant to Section 62 (1) it commits a misdemeanour according to section 121 (2) c) of the Waste Act and it may be fined with up to CZK 10 000 000 (Ministry of the Environment, 2021).

The currently operating PRO EKO-KOM, covers both households and non-household sources and the share of packaging waste from household and non-household sources is quite balanced (Ministry of the Environment, 2021).

Summary result

Paper and cardboard packaging	**1. Packaging waste from households** A high share of the population is covered by high convenience collection services	
	2. Packaging waste from non-household sources Separation at source is mandatory for non-household paper and cardboard packaging waste	Separate collection is mandatory for households and non-households.
Ferrous metals packaging	**1. Packaging waste from households** A high share of the population is covered by high convenience collection services	
	2. Packaging waste from non-household sources Separation at source is mandatory for non-household ferrous metals packaging waste	Separate collection is mandatory for households and non-households.
Aluminium packaging	**Packaging waste from households** A high share of the population is covered by high convenience collection services	
Glass packaging	**1. Packaging waste from households** A high share of the population is covered by high convenience collection services	
	2. Packaging waste from non-household sources Separation at source is mandatory for non-household glass packaging waste	Separate collection is mandatory for households and non-households.

Plastics packaging	**1. Packaging waste from households** A high share of the population is covered by high convenience collection services	
	2. Packaging waste from non-household sources Separation at source is mandatory for non-household plastic packaging waste	Separate collection is mandatory for households and non-households.
Wooden packaging	**Packaging waste from non-household sources** Separation at source is mandatory for non-household wooden packaging waste	Separate collection is mandatory for households and non-households.
Robustness of the underlying information	Credible information received from the Czech authorities through the EEA-ETC/WMGE questionnaire.	

Note: The main source for aluminium packaging waste is drink cans from households, therefore the assessment does not consider aluminium non-household waste.

SRF P-4.2: Firm plans to improve the convenience and coverage of separate collection for the different packaging waste fractions

Concrete plans are needed to improve the convenience and coverage of separate collection. This SRF is only relevant for MS and materials that do not score 'green' in SRF P-4.1. The assessment is done on a material basis, and summing up the scores of the different materials according to their average share in packaging waste[3]. Again, the material specific assessment considers packaging waste from both household and non-household sources.

As Czechia scores green in all categories this SRF is not relevant (cf SRF P-4.1). With respect to the convenience and coverage of separate collection for different packaging waste fractions, there are plans (e.g. PRO Eko-Kom has plans) to improve the type and coverage.

Summary result

Paper and cardboard packaging	**1. Packaging waste from households** N/A (for countries in which a very high share of the population is already covered by high convenience collection services)	According to the Czech authorities there are plans to further improve the type and coverage. However, the exact plans remain unclear.
	2. Packaging waste from non-household sources N/A (for countries already having mandatory separation at source)	
Ferrous metals packaging	**1. Packaging waste from households** N/A (for countries in which a very high share of the population is already covered by high convenience collection services)	
	2. Packaging waste from non-household sources N/A (for countries already having mandatory separation at source)	
Aluminium packaging	**Packaging waste from households** N/A (for countries in which a very high share of the population is already covered by high convenience collection services)	

[3] Based on data from Eurostat on the share of packaging materials in total packaging generated in 2018.

Glass packaging	**1. Packaging waste from households** N/A (for countries in which a very high share of the population is already covered by high convenience collection services)	
	2. Packaging waste from non-household sources N/A (for countries already having mandatory separation at source)	
Plastics packaging	**1. Packaging waste from households** N/A (for countries in which a very high share of the population is already covered by high convenience collection services)	
	2. Packaging waste from non-household sources N/A (for countries already having mandatory separation at source)	
Wooden packaging	**Packaging waste from non-household sources** N/A (for countries already having mandatory separation at source)	
Robustness of the underlying information	Credible information received from the Czech authorities through the EEA-ETC/WMGE questionnaire.	

2.2.5 Extended producer responsibility (EPR) and similar schemes

SRF P-5.1: Coverage of EPR schemes

Czechia has implemented EPR schemes for specific waste streams and product categories, namely packaging waste, WEEE, batteries, tyres, and solar panels. With respect to packaging, there is one EPR scheme in place, namely EKO-KOM, for packaging waste originating from both households and non-households, including packaging made from paper and cardboard, ferrous metals, aluminium, glass, plastic, wood and composite packaging.

The EPR systems are controlled by the Ministry of the Environment. The control authority is the Czech Environmental Inspectorate. To prevent free-riding there are fines in place ranging from CZK 50 000 to CZK 10 000 000. If a retailer sells packaging products from a free-rider, it has to take over the producer's obligations, according to law Act No. 541/2020 Coll., 2020 and Act No. 477/2001 Coll., 2001 (Ministry of the Environment, 2021).

Summary result

All main packaging fractions([a]) are covered by EPR schemes, covering household and non-household packaging	In Czechia all main packaging fractions are covered by EPR schemes, covering household and non-household packaging.
Robustness of the underlying information	Credible information received from the Czech authorities through the EEA-ETC/WMGE questionnaire.

([a]) **Note:** Paper and cardboard, Ferrous metals, Aluminium, Glass, Plastic

SRF P-5.2: Fee modulation in EPR schemes for packaging

As explained in Section 2.1.5, fee modulation (or eco-modulation) is a system with different fees for different types of packaging material and designs. The assessment is the same as described in Section 2.1.5

Summary result

At least one packaging fraction([a]) has an advanced fee modulation that meets at least two assessment criteria	In Czechia there is advanced fee modulation for plastic packaging for the criterion 'recyclability' in place. Moreover, there are compliance checks for all fractions in place.
Robustness of the underlying information	Credible information received from the Czech authorities through the EEA-ETC/WMGE questionnaire.

([a]) **Note:** Paper and cardboard, Ferrous metals, Aluminium, Glass, Plastic

SRF P-5.3 Material specific EPR assessment

The material specific assessment is based on a combination of the coverage of the material-specific EPR schemes and the use of fee modulation for the specific packaging material. The assessment takes the different situations for different types of materials into account: Plastics packaging is the packaging material that is the most difficult to recycle out of the packaging materials targeted by the Packaging and Packaging Waste Directive. Fee modulation therefore plays a larger role for plastic packaging than for the other materials and is therefore rated differently from paper/cardboard, ferrous metals, aluminium and glass. The methodology foresees a green score for plastic packaging only if all four fee modulation assessment criteria mentioned above are met. On the other hand, wooden packaging is mainly generated by commercial and industrial sources and fee modulation is less relevant, therefore the methodology only relies on EPR schemes for wooden packaging from commercial and industrial sources.

As described above, all packaging materials both from household and non-households are covered by EPR schemes. Moreover, there are compliance checks for all packaging fractions done by the Czech Environmental Protection Inspectorate. However, advanced fee modulation is only used for plastic packaging for the criterion 'recyclability'.

Summary result

SRF P-5.3.1 EPR scheme for Paper and cardboard packaging waste	EPR scheme covering household and non-household packaging	
SRF P-5.3.2 EPR scheme for Ferrous metals packaging waste	EPR scheme covering household and non-household packaging	
SRF P-5.3.3 EPR scheme for Aluminium packaging waste	EPR scheme covering household and non-household packaging	
SRF P-5.3.4 EPR scheme for Glass packaging waste	EPR scheme covering household and non-household packaging,	
SRF P-5.3.5 EPR scheme for Plastic packaging waste	EPR scheme covering household and non-household packaging, with a fee modulation meeting at least two assessment criteria	There is fee modulation for plastic packaging for the criterion 'recyclability' in place and compliance is checked by the Environmental Protection Inspectorate.
SRF P-5.3.6 EPR scheme for Wooden packaging waste	EPR scheme covering all non-household packaging	
Robustness of the underlying information		Credible information received from the Czech authorities through the EEA-ETC/WMGE questionnaire.

2.3 Target on landfill of municipal waste

2.3.1 Current situation and past trends

SRF LF-1.1: Distance to target

The Landfill directive (1999/31/EC), as amended by Directive (EU) 2018/850, sets a target to reduce, by 2035, the amount of municipal waste landfilled to 10 % or less of the total amount of municipal waste generated (by weight).

Data to show the current rate of landfilling in line with the reporting rules will only be reported by mid-2022. Therefore, this analysis calculates the landfilling rate based on the current Eurostat dataset *Municipal waste by waste management operations [env_wasmun]*; by dividing the amount of landfilled waste by the total amount of waste generated. The overall landfilling rate of Czechia was 47.7 % in 2020 (Eurostat (2022a).

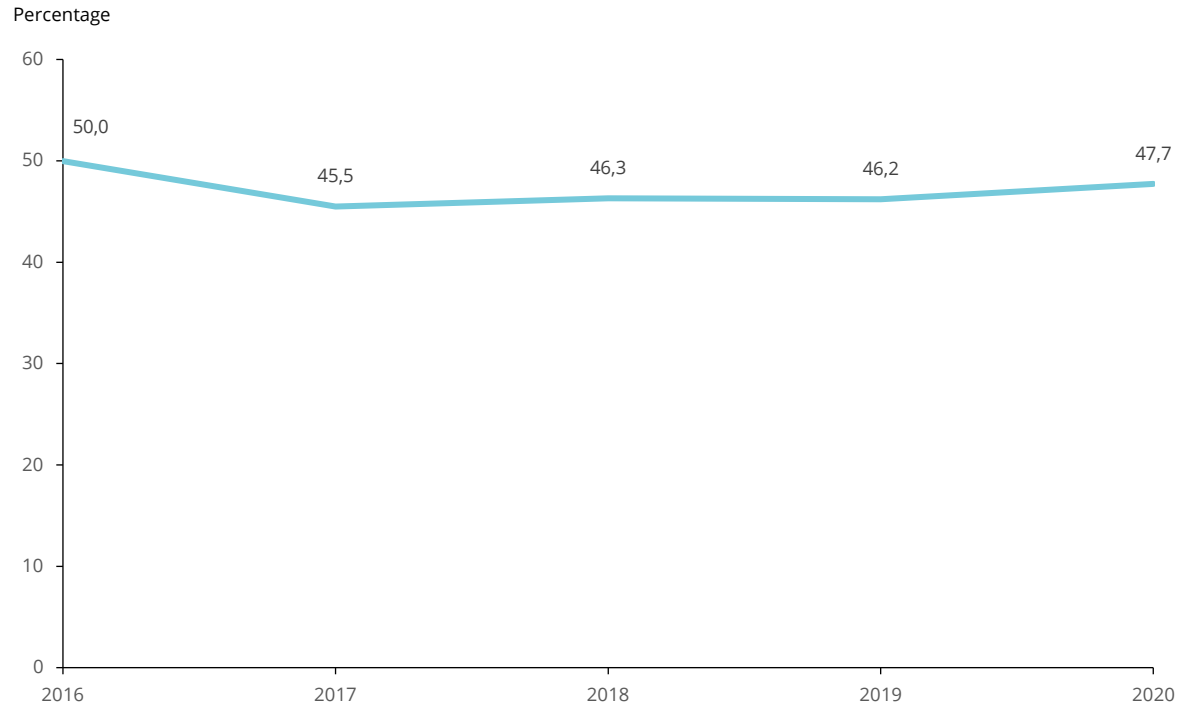
Summary result

Distance to target > 20 percentage points	The distance to target is 37.7 percentage points with a landfilling rate of 47.7 % in 2020.
Robustness of the underlying information	The data is derived from Eurostat and is considered to be rather robust. The 2020 data from Eurostat are flagged as provisional. However, the reported landfill rate might increase once the new calculation rules laid down in the Commission Implementing Decision (EU) 2019/1885 will be applied. Based on the available information, it is currently not possible to quantify the impact of the new calculation rules on the landfill rate.

SRF LF-1.2: Past trend in municipal solid waste landfill rate

Over the past three years, the overall landfilling rate of Czechia remained rather stable since 2017 Figure 2.4). A slight increase can be seen, from 45.5 % in 2017 to 46.2 % in 2019, and 47.7 % in 2020.

Figure 2.4 Landfilling in Czechia between 2013 and 2020, in percentage



Note: Estimates for 2016, break in time series in 2017, change in methodology in 2020

Source: Eurostat (2022a)

Summary result

Landfill rate in 2020 > 25% and decrease in last 5 years < 15 percentage points	The landfilling rate in 2020 was 47.7 % and has slightly increased in the period 2017-2019, with 0.7 percentage points.
Robustness of the underlying information	There is a break in the time series data between 2016 and 2017 for generated and treated waste in the Eurostat data set, and 2020 data are not fully comparable with data before 2020, therefore only data 2017-2019 have been used for calculating the trend.

SRF LF-1.3: Diversion of biodegradable municipal waste from landfill

According to Art. 5(2c) of the EU Landfill Directive, Member States had to ensure that by 2016, biodegradable municipal waste going to landfills is reduced to 35 % of the total amount (by weight) of biodegradable municipal waste produced in 1995 or the latest year before 1995 for which standardised Eurostat data is available. However, Czechia benefits from a four year derogation period and thus has to meet the 35 % target by 2020.

Czechia generated about 1.5 million tonnes of biodegradable municipal waste in the reference year 1995. The data for the amount of biodegradable municipal waste landfilled in comparison to the base year 1995 show a decreasing trend (EC, 2021):

- 2017: 48 %
- 2018: 47 %
- 2019: 42 %
- 2020: 28.3 %

For the reporting of 2020 data, the 1995 baseline of generated biodegradable municipal waste has been revised.

Summary result

Target for reducing the amount of biodegradable municipal waste (BMW) landfilled to 35% of BMW generated in 1995 has been achieved in 2016 or in the year specified in the derogation where applicable	Czechia has reported 28.3 % biodegradable waste landfilled (related to the generated amount in 1995) for 2020 and has thus met the target in 2020.
Robustness of the underlying information	Based on officially reported data which is well in line with otherwise reported statistical data on landfilling of municipal waste.

3 Conclusion

This risk assessment indicates whether Czechia is at risk of not meeting the targets. The 'total risk' categorization is the result of the sum of the individual scores of each SRF as described in the previous chapter, where the assessment of each SRF results in a score of **2 points (green), 1 point (amber) or 0 points (red)**, depending on the assessment of the SRF. As some SRFs are considered to have a higher impact on meeting the target, the score of the SRF is multiplied by the defined weight of the SRF. As some SRFs might not be applicable to the Czechia, only the SRFs relevant to Czechia are taken into account to define the maximum score. Czechia is considered to be 'not at risk' if its score is more than 50 % of this maximum score, and 'at risk' if its score is less than 50 % of this maximum score.

3.1 Prospects for meeting the recycling target for municipal solid waste

The Czech Ministry of the Environment is of the opinion that incineration taxes are not a suitable instrument for increasing the recycling rate for municipal waste at the moment. However, if this SRF is left out of the assessment, the overall result regarding the categorisation of Czechia's risk of not meeting the target would not change.

55 % **of maximum score**	Based on the provided information and the analysis done, it is concluded that Czechia is **not at risk for not meeting the MSW recycling target in 2025**.
Current situation and past trends:	The recycling rate was 40.5 % in 2020, which is 14.5 percentage points below the target. The recycling rate in the period 2017-2019 has increased by 1.3 percentage points. Data for 2020 is not directly comparable with previous data because of a change in methodology.
Legal instruments:	The amended WFD has been fully transposed into national law, with a delay of less than 12 months. Responsibilities are defined and support mechanisms are in place, and there are direct consequences if the targets are not met.

Economic instruments:	Czechia has a landfill tax that increased to CZK 900 (corresponding to 47.2 EUR/t rescaled based on purchasing power parities) and set to more than double by 2029 (CZK 1850). In addition, there is a landfill ban for separately collected waste in place. PAYT is used only for about 20 % of the population.
Separate collection systems:	Paper and cardboard, ferrous metals, aluminium, composite packaging and glass are mainly collected via high convenience bring points and civic amenity sites and in less densely populated areas to some extent also via door-to-door collection. Bio-waste collection is focussed on garden waste, mainly collected at civic amenity sites. In towns, suburbs and rural areas there are also bring points and door-to-door collection for bio-waste. There are plans to expand the separate collection of food waste, wood and textiles waste, and the plan for implementation is set out in the updated Waste Management Plan. There are plans to improve the convenience and coverage of WEEE collection. The collective system (EPR scheme) has plans to expand the network of product take back points in the future. The collection system is in place throughout Czechia and will further develop and expand.
Extended producer responsibility:	The Czech EPR scheme for packaging EKO-KOM is responsible for all packaging materials from all sources. In Czechia there is fee modulation only for plastics packaging for the criterion 'recyclability' in place. Moreover, there are compliance checks for all fractions in place.
Bio-waste treatment capacity and quality management:	Czechia has sufficient bio-waste treatment capacity available to treat nearly all municipal bio-waste but geographical distance might be an issue. There are national standards for compost quality in place, and a quality management system for each approved composting plant.

3.2 Prospects for meeting the recycling targets for packaging waste

The Czech Ministry of the Environment is of the opinion that an incineration tax is not a suitable instrument for increasing the recycling rates for packaging waste at the moment. However, if this SRF is left out of the assessment, the overall results regarding the categorisation of Czechia's risk of not meeting the targets would not change.

72 % **of maximum score**	Based on the provided information and the analysis done, it is concluded that Czechia is **not risk for not meeting the 65 % recycling target for packaging waste in 2025**	
73 % of maximum score	Paper and cardboard	Not at Risk
70 % of maximum score	Ferrous metals packaging	Not at Risk
31 % of maximum score	Aluminium packaging	At Risk
69 % of maximum score	Glass packaging	Not at Risk
62 % of maximum score	Plastics packaging	Not at Risk
72 % of maximum score	Wooden packaging	Not at Risk
Current situation and past trends:	The total packaging recycling rate (revised estimate to account for the impact of the new calculation rules) is 63.2 %, 1.8 percentage points below the 2025 target. The only waste stream more than 15 percentage points below the target is aluminium packaging. For this target, the Ministry of the Environment plans to apply for a derogation, extending the deadline for the target. The total packaging recycling rate decreased by 1.9 percentage points over the past five years.	
Legal instruments:	The amended Packaging and Packaging Waste Directive has been transposed with a delay of less than 12 months. Responsibilities are defined and support mechanisms are in place, and there are direct consequences for the PROs if the targets are not met.	
Economic instruments:	Czechia has a landfill tax that increased to CZK 900 in 2022 (corresponding to 47.2 EUR/t rescaled based on purchasing power parities) and is set to more than double by 2029 (CZK 1850). In addition, there is a landfill ban for separately collected waste in place. PAYT is used only for about 20 % of the population. Voluntary DRS are in place for glass beer bottles, some plastic crates and some wooden packaging.	

Separate collection systems:	Paper and cardboard, ferrous metals, aluminium, glass and composite packaging are mainly collected via high-density bring points and civic amenity sites and in less densely populated areas to some extent also via door-to-door collection. Packaging waste form households is collected together with other waste of the same materials, and waste analysis is performed to identify how much of the collected material is packaging and non-packaging. There are no plans to change the separate collection system for packaging waste.
Extended producer responsibility:	All main packaging fractions are covered by EPR schemes, covering household and non-household packaging. Advanced fee modulation has been recently implemented for plastic packaging.

3.3 Prospects of meeting the landfill of municipal waste target

14 % **of maximum score**	Based on the provided information and the analysis done, it is concluded that Czechia is **at risk for not meeting the 2035 target to reduce the amount of municipal waste landfilled to 10 % or less of the total amount of municipal waste generated.**
Current situation and past trends:	The distance to target is 37.7 percentage points with a landfilling rate of 47.7 % in 2020, and little improvement has been made over the recent years: there even has been a slight increase in the period 2017-2019, with 0.7 percentage points. Data for 2020 is not directly comparable with previous data because of a change in methodology.
Diversion of biodegradable municipal waste from landfill:	Czechia has a four year derogation period and thus needs to meet the target to reduce the landfilling of biodegradable municipal waste to 35 % of the generated biodegradable municipal waste by 2020. In 2020, the rate was reported to be 28.3 %, and Czechia thus met the target.

List of abbreviations

Abbreviation	Name
CSO	Czech Statistical Office
DRS	Deposit Return System
EC	European Commission
EEA	European Environment Agency
EEE	Electric and Electric Equipment
Eionet	European Environmental Information and Observation Network
EPR	Extended producer responsibility
ETC/CE	European Topic Centre on Circular Economy and resource use
ETC/WMGE	European Topic Center / Waste and Materials in a Green Economy
MBT	Mechanical biological treatment
MoE	Ministry of Environment
MS	Member state
MSW	Municipal solid waste
PAYT	Pay-as-you-throw
PET	Polyethylene terephthalate
PPWD	Packaging and Packaging Waste Directive
PRO	Producer Responsibility Organisation
R&D	Research and development
RR	Recycling rate
SRF	Success and risk factor
TOC	Total Organic Carbon
WEEE	Waste Electric and Electronic Equipment
WFD	Waste Framework Directive
WMP	Waste Management Plan

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Annex 1 Detailed scoring of success and risk factors

Assessment sheet - Recycling target for municipal waste

MS Czechia
Date Jun-22

SRF		Assessment result	Weight	Score
Current situation and past trends				
MSWR-1.1	Distance to target	Distance to target 5 - 15 percentage points	5	5
MSWR-1.2	Past trends in municipal solid waste recycling rate	RR < 45% and increase in last 5 years < 10 percentage points	1	0
Legal instruments				
MSWR-2.1	Timely transposition of the revised WFD into national law	Transposition with a delay of less than 12 months	1	1
MSWR-2.2	Clearly defined responsibilities for meeting the targets and support and enforcement mechanisms	Clearly defined responsibilities, enforcement and good set of support mechanisms for meeting the recycling targets	1	2
Economic instruments				
MSWR-3.1	Taxes and/or ban for landfilling residual or biodegradable waste	Ban, or landfill tax > 30 EUR/t* with escalator, or landfill tax > 45 EUR/t	1	2
MSWR-3.2	Taxes on municipal waste incineration	No incineration taxes or taxes < 7 EUR/t*	1	0
MSWR-3.3	Pay-as-you-throw (PAYT) system	No or less than 50% of the population covered by PAYT	1	0

Separate collection systems				
MSWR-4.1	Convenience and coverage of separate collection systems for the different household waste fractions			
	Paper and cardboard	A high share of the population is covered by high convenience collection services	0,46	0,92
	Metals	A high share of the population is covered by high convenience collection services	0,08	0,16
	Plastics	A high share of the population is covered by high convenience collection services	0,28	0,56
	Glass	A high share of the population is covered by high convenience collection services	0,18	0,36
	Bio-waste	A low share of the population is covered by high convenience collection services	0,84	0
	Wood	A low share of the population is covered by high convenience collection services	0,06	0
	Textiles	A low share of the population is covered by high convenience collection services	0,06	0
	WEEE	Medium convenience collection services dominate	0,04	0,04
MSWR-4.2	Firm plans to improve the convenience and coverage of separate collection systems for the different household waste fractions			
	Paper and cardboard	N/A (for countries in which a very high share of the population is already covered by high convenience collection services)	0,23	0
	Metals	N/A (for countries in which a very high share of the population is already covered by high convenience collection services)	0,04	0
	Plastics	N/A (for countries in which a very high share of the population is already covered by high convenience collection services)	0,14	0
	Glass	N/A (for countries in which a very high share of the population is already covered by high convenience collection services)	0,09	0
	Bio-waste	Firm plans to improve the separate collection system, with clear responsible entities and defined targets and timeline	0,42	0,84
	Wood	Firm plans to improve the separate collection system, with clear responsible entities and defined targets and timeline	0,03	0,06
	Textiles	Firm plans to improve the separate collection system, with clear responsible entities and defined targets and timeline	0,03	0,06
	WEEE	There are plans to improve the collection service but unclear plan for implementation	0,02	0,02

Extended producer responsibility (EPR) and similar schemes				
MSWR-5.1	Fee modulation in EPR schemes for packaging	At least one packaging fraction* has an advanced fee modulation that meets at least two assessment criteria	1	1
Bio-waste treatment capacity and quality management				
MSWR-6.1	Capacity for the treatment of bio-waste	Enough bio-waste treatment capacity for 80% of generated municipal bio-waste	1	2
MSWR-6.2	Legally binding national standards and Quality Management System for compost/digistate	Legally binding national standards for compost/digestate quality in place, and quality management system in place	1	2
			Total score	**18,02**
			Maximum score	33,00
				55%

Assessment sheet - Recycling target for packaging waste

MS Czechia
Date Jun-22

SRF		Assessment result	Weight	Score
Current situation and past trends				
P-1.1	Distance to target - Overall packaging	< 5 percentage points below target, or target exceeded	5	10
	Distance to target - Paper and cardboard packaging	< 5 percentage points below target, or target exceeded	5	10
	Distance to target - Ferrous metals packaging	< 5 percentage points below target, or target exceeded	5	10
	Distance to target - Aluminium packaging	> 15 percentage points below target, or no data reported	5	0
	Distance to target - Glass packaging	< 5 percentage points below target, or target exceeded	5	10
	Distance to target - Plastics packaging	< 5 percentage points below target, or target exceeded	5	10
	Distance to target - Wooden packaging	< 5 percentage points below target, or target exceeded	5	10
P-1.2	Past trends in packaging waste recycling rate	RR > 60% and increase in last 5 years < 5 percentage points, or RR > 55%, and increase in last 5 years < 10 percentage points, or RR < 55% and increase in last 5 years > 10 percentage points	1	1
	Past trends in paper and cardboard packaging recycling	RR > 70% and increase in last 5 years > 5 percentage points, or RR > 65% and increase in last 5 years > 10 %, or RR > 75%	1	2
	Past trends in ferrous metals packaging recycling	RR > 65% and increase in last 5 years < 5 percentage points, or RR > 60%, and increase in last 5 years < 10 percentage points, or RR < 60% and increase in last 5 years > 10 percentage points	1	1
	Past trends in aluminium packaging recycling	RR < 40% and increase in last 5 years < 10 percentage points	1	0
	Past trends in glass packaging recycling	RR > 65% and increase in last 5 years > 5 percentage points, or RR > 60% and increase in last 5 years > 10 %, or RR > 70%	1	2

	Past trends in plastic packaging recycling	RR > 45% and increase in last 5 years < 5 percentage points, or RR > 40%, and increase in last 5 years < 10 percentage points, or RR < 40% and increase in last 5 years > 10 percentage points	1	1
	Past trends in wooden packaging recycling	RR > 20% and increase in last 5 years > 5 percentage points, or RR > 15% and increase in last 5 years > 10 %, or RR > 25%	1	2
Legal instruments				
P-2.1	Timely transposition of the revised Packaging and Packaging Waste Directive into national law	Transposition with a delay of less than 12months	1	1
P-2.2	Clearly defined responsibilities for meeting the targets and support and enforcement mechanisms	Clearly defined responsibilities, enforcement and good set of support mechanisms for meeting the recycling targets	1	2
Economic instruments				
P-3.1	Taxes and/or ban for landfilling residual or biodegradable waste	Ban, or landfill tax > 30 EUR/t* with escalator	1	2
P-3.2	Taxes on municipal waste incineration	No incineration taxes or taxes < 7 EUR/t*	1	0
P-3.3	Packaging taxes	No packaging taxes	1	0
P-3.4	Pay-as-you-throw (PAYT) system	No or less than 50% of the population covered by PAYT	1	0
P-3.5	Deposit-return systems for aluminium drink cans	No or voluntary DRS for some drink cans	1	0
	Deposit-return systems for glass drink bottles	No or voluntary DRS for some drink bottles	1	0
	Deposit-return systems plastic drink bottles	No or voluntary DRS for some drink bottles	1	0
	Deposit-return systems for plastic crates	No or voluntary DRS for some plastic crates	1	0
	Deposit-return systems for wooden packaging	No or voluntary DRS for some wooden packaging	1	0

Separate collection systems				
P-4.1	Convenience and coverage of separate collection systems for the different packaging waste fractions			
	Paper and cardboard packaging (household)	A high share of the population is covered by high convenience collection services	1	2
	Paper and cardboard packaging (non-household)	Separation at source is mandatory for non-household paper and cardboard packaging waste	1	2
	Ferrous metals packaging (household)	A high share of the population is covered by high convenience collection services	1	2
	Ferrous metals packaging (non-household)	Separation at source is mandatory for non-household ferrous metals packaging waste	1	2
	Aluminium packaging	A high share of the population is covered by high convenience collection services	2	4
	Glass packaging (household)	A high share of population is covered by high convenience collection services	1	2
	Glass packaging (non-household)	Separation at source is mandatory for non-household glass packaging waste	1	2
	Plastics packaging (household)	A high share of the population is covered by high convenience collection services	1	2
	Plastics packaging (non-household)	Separation at source is mandatory for non-household plastic packaging waste	1	2
	Wooden packaging	Separation at source is mandatory for non-household wooden packaging waste	2	4
P-4.2	Firm plans to improve the convenience and coverage of separate collection systems for the different packaging waste fractions			
	Paper and cardboard (household)	N/A (for countries in which a high share of the population is already covered by high convenience collection services)	0,5	0
	Paper and cardboard (non-household)	N/A (for countries already having mandatory sorting at source)	0,5	0
	Ferrous metals packaging (household)	N/A (for countries in which a high share of the population is already covered by high convenience collection services)	0,5	0
	Ferrous metals packaging (non-household)	N/A (for countries already having mandatory sorting at source)	0,5	0
	Aluminium packaging	N/A (for countries in which a high share of the population is already covered by high convenience collection services)	1	0
	Glass packaging (household)	N/A (for countries in which a very high share of the population is already covered by high convenience collection services)	0,5	0
	Glass packaging (non-household)	N/A (for countries already having mandatory sorting at source)	0,5	0
	Plastics packaging (household)	N/A (for countries in which a very high share of the population is already covered by high convenience collection services)	0,5	0

	Plastics packaging (non-household)	N/A (for countries already having mandatory sorting at source)	0,5	0
	Wooden packaging	N/A (for countries already having mandatory sorting at source)	1	0
Extended producer responsibility (EPR) and similar schemes				
P-5.1	Coverage of EPR schemes	All main packaging fractions* are covered by EPR schemes, covering household and non-household packaging	1	2
P-5.2	Fee modulation in EPR schemes for packaging	At least one packaging fraction* has a fee modulation that meets at least two assessment criteria	1	1
P-5.3	Material specific EPR assessment - Paper and cardboard packaging waste	EPR scheme covering household and non-household packaging	1	1
	Material specific EPR assessment - Ferrous metals packaging waste	EPR scheme covering household and non-household packaging	1	1
	Material specific EPR assessment - Aluminium packaging waste	EPR scheme covering household and non-household packaging	1	1
	Material specific EPR assessment - Glass packaging waste	EPR scheme covering household and non-household packaging	1	1
	Material specific EPR assessment - Plastics packaging waste	EPR scheme covering household and non-household packaging, with a fee modulation meeting at least two assessment criteria	1	1
	Material specific EPR assessment - Wooden packaging waste	EPR scheme covering all non-household packaging	1	2
Total packaging recycling target				**23,00**
			Maximum score	32,00
				72%

Paper and cardboard recycling target

Total score	**22,00**
Maximum score	30,00
	73%

Ferrous metals packaging recycling target

Total score	**21,00**
Maximum score	30,00
	70%

Aluminium packaging recycling target

Total score	**10,00**
Maximum score	32,00
	31%

Glass packaging recycling target

Total score	**22,00**
Maximum score	32,00
	69%

Plastics packaging recycling target

Total score	**21,00**
Maximum score	34,00
	62%

Wooden packaging recycling target

Total score	**23,00**
Maximum score	32,00
	72%

Assessment sheet - Target for landfilling of municipal waste

MS Czechia
Date Jun-22

SRF		Assessment result	Weight	Score
Current situation and past trends				
LF-1.1	Distance to target	Distance to target > 20 percentage points, or no data reported	5	0
LF-1.2	Past trends in municipal solid waste landfill rat	Landfill rate in 2020 > 25% and decrease in last 5 years < 15 percentage points	1	0
LF-1.3	Diversion of biodegradable municipal waste from landfill	Target for reducing the amount of biodegradable municipal waste (BMW) landfilled to 35% of BMW generated in 1995 has been achieved in 2016 or in the year specified in the derogation where applicable	1	2
			Total score	**2,00**
			Maximum score	14,00
				14%