

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



Slovenia 

June 2022

Contents

Acknowledgements.....	1
1 Introduction.....	2
1.1 Background and purpose.....	2
1.2 Approach.....	2
1.3 Member State profile – context parameters.....	3
2 Success and risk factors likely to influence future performance.....	7
2.1 Target for preparing for reuse and recycling of municipal waste.....	7
2.1.1 Current situation and past trends.....	7
2.1.2 Legal instruments.....	9
2.1.3 Economic instruments.....	11
2.1.4 Separate collection system.....	12
2.1.5 Extended producer responsibility (EPR) and similar schemes.....	16
2.1.6 Treatment capacity for bio-waste.....	17
2.2 Target for the recycling of packaging waste.....	19
2.2.1 Current situation and past trends.....	19
2.2.2 Legal instruments.....	23
2.2.3 Economic instruments.....	24
2.2.4 Separate collection system.....	26
2.2.5 Extended producer responsibility (EPR) and similar schemes.....	29
2.3 Target on landfill of municipal waste.....	31
2.3.1 Current situation and past trends.....	31
3 Conclusion.....	33
3.1 Prospects for meeting the recycling target for municipal solid waste.....	33
3.2 Prospects for meeting the recycling targets for packaging waste.....	35
3.3 Prospects of meeting the landfill of municipal waste target.....	36
List of abbreviations.....	37
References.....	38
Annex 1 Detailed scoring of success and risk factors.....	41

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 Ministry of the Environment and Spatial Planning and the Slovenian Environment Agency in May 2021 to a questionnaire developed by the EEA and ETC/WMGE. The EEA and ETC/CE would like to thank the Slovenian authorities for the information provided and for the kind review of drafts of this 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 Slovenia. 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 Slovenia 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 Slovenia 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 Slovenia to achieve the overall packaging waste and specific packaging materials' recycling targets for 2025. Chapter 2.3 examines the prospects for Slovenia 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.

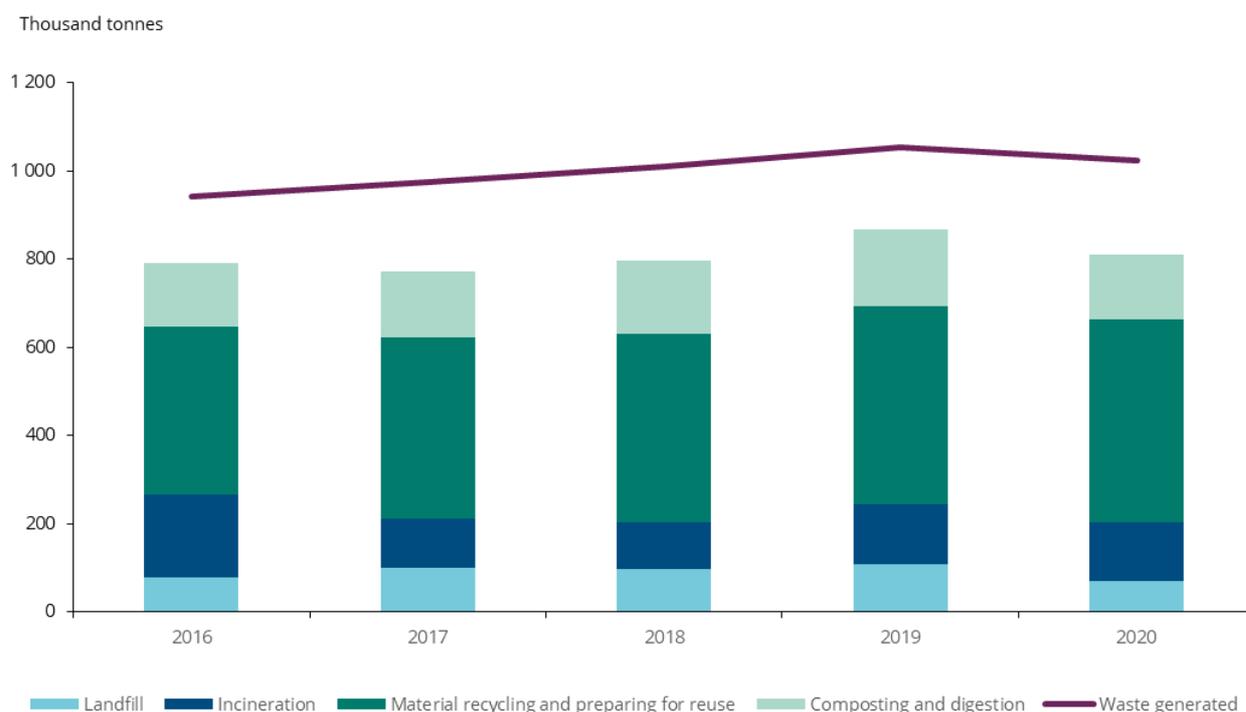
1.3 Member State profile – context parameters

Municipal waste generation and treatment

The annual municipal waste generation in Slovenia shows an increasing trend, from 943 thousand tonnes in 2016 to 1 024 thousand tonnes in 2020 (Figure 1.1). Waste generation per capita has also increased from 457 kg/person in 2016 to 487 kg/person in 2020, slightly below the (estimated) EU average of 505 kg/person in 2020. The municipal waste data include all packaging waste generated in Slovenia, including packaging waste from industry. The gap between the amount of generated and treated waste is due to mass losses at MBT plants and temporary storage (Statistical Office of the Republic of Slovenia, 2020).

The recycling rate (material recycling, and composting and digestion) has increased from 55.6 % in 2016 to 59.3 % in 2020. This increase is mainly due to increased material recycling which has gone up from 40.3 % to 44.9 % during this period. Composting/digestion decreased slightly from 15.3 % in 2016 to 14.4 % in 2020. Landfilling decreased from 8.3 % in 2016 to 6.7 % in 2020. Incineration dropped from 19.9 % in 2016 to 13.1 % in 2020. There are clear trends in waste management in Slovenia: the increasing waste generation per capita, decreasing landfill rates and increasing bio-waste treatment. (Ministry of the Environment and Spatial Planning and Slovenian Environment Agency, 2021)

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



Note: Eurostat estimates for incineration, Material recycling and preparing for reuse, Composting and digestion for 2016 to 2019.

Source: Eurostat (2022a)

Legal Framework

The main legislation on the management of municipal and packaging waste in Slovenia includes the following acts and decrees:

- The [Decree on waste](#) includes the general requirements regarding the management of waste, and is to include the objectives regarding the reuse and recycling of municipal waste as set out in the WFD. (Government of Slovenia, 2020a)
- The responsibility of the municipalities for the collection, MBT and landfilling of municipal waste is stated in the [Environmental Protection Act](#) (Government of Slovenia (2020b) and subsequent changes).
- The requirements for collection of municipal waste are set out in more detail in the [Decree on the obligatory municipal public service of waste collection](#), determining the activity and tasks of the obligatory municipal public utility service of municipal waste collection (hereinafter: public collection service), the types of municipal waste subject to the public collection service and the minimum scope of supply standards and technical, maintenance, organizational and other measures and norms for performing the public collection service. (Government of Slovenia (2018b) and subsequent changes).
- The [Decree on the methodology for determining prices of obligatory municipal public services for environmental protection](#) sets the pricing of MSW management services, such as the PAYT (Government of Slovenia, 2019)
- The [Decree on biodegradable kitchen waste and garden waste management](#) (Official Gazette of the Republic of Slovenia, No. 39/10) (Government of Slovenia, 2010) lays down mandatory management of biodegradable kitchen waste generated in kitchens and in the distribution of food for the purpose of carrying out catering, kitchen waste generated in the households and green garden waste. It also determines the types of tasks that are performed within the obligatory municipal public utility service of municipal waste collection in the field of kitchen waste and green garden waste management.
- The requirements on packaging waste management are set out in the [Decree on packaging and packaging waste](#). It lays down the rules and conditions for the production of packaging, its use, placing on the market in the Republic of Slovenia and distribution, as well as the rules for the management of packaging waste. (Government of Slovenia, 2021b)
- The [Decree on the environmental tax on packaging waste pollution](#) sets the taxes for packaging (Government of Slovenia, 2018a)
- The [Decree on waste landfill](#) sets the requirements and conditions for waste disposal and the conditions and measures relating to the planning, construction, disposal and closure of a landfill , including landfill ban (Government of Slovenia (2021a) and subsequent changes.
- The [Decree on the environmental tax on pollution from the landfilling of waste](#) sets the landfill tax (Government of Slovenia (2014) and subsequent changes.

Waste management plan(s)

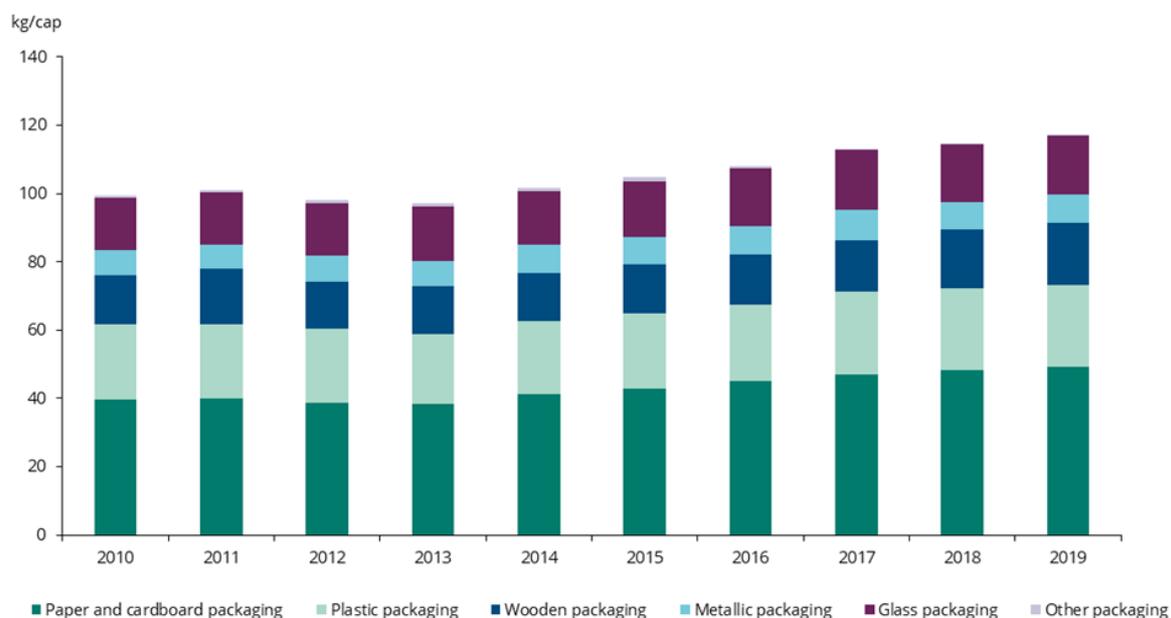
A new Waste Management Programme and Waste Prevention Programme of the Republic of Slovenia has been adopted in April 2022 (Government Decision No. 35405-17/2021-2550) (Ministry of Environment and Spatial Planning Slovenia, 2022). This programme is a revision of the Waste Management Program and Waste Prevention Program of the Republic of Slovenia of 2016 (Government Decision No. 35402-1/2016/6) (Ministry of Environment and Spatial Planning Slovenia, 2016).

The Programme adopted in 2022 covers the whole territory of Slovenia, and it is intended to implement the obligation to draw up waste management plans under Directive 2008/98/EC on waste, Directive 94/62/EC on packaging and packaging waste, Directive 1999/31/EC on landfills and the drawing up of waste prevention programmes under Directive 2008/98/EC on waste. It contains separate chapters on municipal waste and on packaging waste.

Packaging waste generation and treatment

In Slovenia, 245 thousand tonnes (117 kg/cap) of packaging waste were generated in 2019, which was below the EU average of 177 kg/cap. Figure shows that packaging waste generation has increased for all packaging fractions, except for other packaging, compared to 2010. (Eurostat, 2022b)

Figure 1.2 Packaging waste generation in Slovenia 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. Based on data from the Ministry of the Environment and Spatial Planning and Slovenian Environment Agency (2021) on residual waste composition and separate collection volumes, the capture rates are calculated as the share of separately collected fraction to the total generation of that material. For Slovenia the calculated capture rates for different waste fractions are presented in Table 1.1.

Table 1.1 Capture rates for different waste fractions in Slovenia

	Residual waste composition (%) ^(b)	Residual waste composition (tonnes) ^(a)	Separately collected amounts (tonnes) ^(b)	Materials in total MSW (tonnes)	Capture rates (%)
Reference year	2019				
Mixed municipal waste, total		206 580			
Paper and cardboard	10.28 %	21 236	212 769	234 005	91 %
Metals	2.85 %	5 888	71 801	77 689	92 %
Glass	3.61 %	7 458	42 167	49 625	85 %
Plastic	14.25 %	29 438	29 278	58 716	50 %
Bio-waste	28.19 %	58 235	158 561	216 796	73 %
Textiles	8.92 %	18 427	1 906	20 333	9 %
Wood	1.50 %	3 099	64 950	68 049	95 %

(^a) Note: Share of material in residual waste (household waste only) multiplied with the amount of residual waste in 2018 as reported in the questionnaire by the Ministry of the Environment and Spatial Planning and the Slovenian Environment Agency

(^b) Source: As reported in the EEA-ETC/WMGE questionnaire by the Ministry of the Environment and Spatial Planning and the Slovenian Environment Agency

These numbers show that some parts of the separate collection system in Slovenia are very efficient, but there is still room for improvement to capture higher shares of plastics, textiles, and to some extent also bio-waste.

2 Success and risk factors likely to influence future performance

2.1 Target for preparing for reuse and recycling of municipal waste

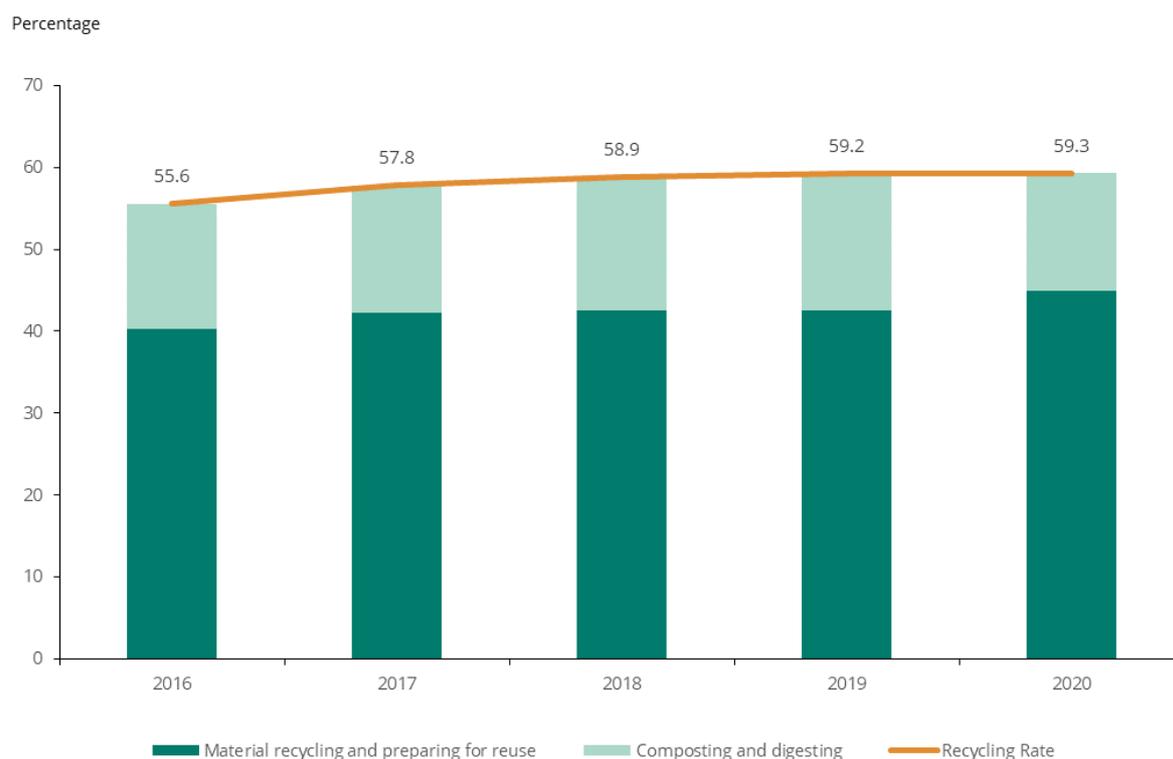
This chapter aims at assessing the prospects of Slovenia to achieve the **55 % preparing for reuse and recycling target** for municipal waste in 2025. For a detailed description of the methodology followed, the development of success/risk factors and their impact on recycling, please consult the methodology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

2.1.1 Current situation and past trends

SRF MSWR-1.1: Distance to target

The overall municipal waste recycling rate of Slovenia shows a steady increase, mainly driven by increasing material recycling, while composting/digestion slightly decreased (Figure 2.1). In this analysis the recycling rate is calculated by dividing the summed amounts of recycling of materials and of composting and 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 as defined in Article 11a are not yet available.

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



Note: Eurostat estimates for Material recycling and preparing for reuse, Composting and digestion for 2016-2020.

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 that the target will be met. For Slovenia, the recycling rate is 59.3 % in 2020, which is already exceeding the 55% target for 2025 (Eurostat, 2022a).

However, the data used for this analysis is based on a different methodology than the calculation rules for the target. The impact of the application of the new calculation rules to the recycling rate has not been quantified yet in Slovenia. Slovenia is expecting to achieve the recycling targets for MSW also with the new calculation methodology (Ministry of the Environment and Spatial Planning and Slovenian Environment Agency, 2021). A few Member States have provided quantified estimates indicating how the application of the new reporting rules would influence the recycling rate (compared to the data reported to Eurostat under the Joint Eurostat/OECD questionnaire), resulting in reductions between 3.8 and 13 percentage points, and on average 5.5-6.7 percentage points. While the effect depends on how Slovenia currently reports the data, an effect of a reduction with 5 percentage points is therefore assumed for this assessment, bringing the recycling rate down to 62 %. This assumption does not result in a change of the assessment for this SRF.

Slovenia implements a waste traceability system, where waste data can be traced from generation via pre-treatment to final treatment. (Eurostat, 2017)

Summary result

Distance to target < 5 percentage points	Based on currently available data Slovenia's recycling rate lies at 59.3 %, 4.3 percentage points above the 2025 target. Considering however the impact of the new calculation rules, we assume a reduction with 5 percentage points for this assessment, resulting in an estimated recycling rate of 54.3 %, 0.7 percentage points below the target.
Robustness of the underlying information	The currently available data do not yet reflect the calculation rules applicable to the 2025 target. Slovenia has not yet quantified the influence of the new calculation rules on the recycling rate. However, also a recycling rate which would be 5 percentage points below the currently reported one would not change the assessment for this SRF.

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

The recycling rate (past trend) over the last five years shows a steady increase (Figure). The recycling rate has increased from 55.6 % to 59.3 % mainly driven by increasing material recycling, while composting/digestion slightly decreased. This indicates that Slovenia is implementing measures that impact the recycling rate.

Summary result

RR > 50% and increase in last 5 years < 5 percentage points	The recycling rate has increased by 3.7 percentage points over the past five years. For Slovenia, the application of the new calculation rules would indicate an estimated recycling rate of 54.3 % in 2020.
Robustness of the underlying information	There is no break in the time series data. The currently available data do not yet reflect the calculation rules applicable to the target.

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.

Slovenia has not yet (fully) transposed the Waste Framework Directive into national law (for full transposition it is necessary to adopt the new Environmental Protection Act, ZVO-2).

Summary result

No full transposition yet	Slovenia has not fully transposed the WFD into national law yet.
Robustness of the underlying information	Information provided by the European Commission (status as of 12 November 2021)

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 the accountability for failing the targets are, the higher the chance that the targets will be met.

The following stakeholders have responsibilities with respect to meeting the targets of MSW recycling:

- Ministry of Environment: The objectives regarding the recycling of MSW will be transposed in the Decree on waste;
- Municipalities are responsible for collection of MSW and the treatment of residual waste and treatment residues. For further treatment, the separately collected waste is submitted to private actors, with proper permits for their activities;
- The Ministry of the Environment is responsible for making sure that the set targets are achieved, and municipalities are not directly responsible to meet the targets. Instead, binding service requirements to be met by waste collectors and operators are set in the national legislation and support reaching the recycling targets. These include minimum requirements for the density and service level (e.g. collection frequency) per type of waste that must be collected separately, treatment requirements for mixed municipal waste (in MBT). There are also, among others, prohibitions on the disposal of certain waste.

The Decree on the obligatory municipal public service of waste collection determines the requirements of the public service provider for waste collection, such as separate collection requirements and minimum technical standards for collection (Ministry of the Environment and Spatial Planning and Slovenian Environment Agency, 2021; Government of Slovenia, 2018b).

For packaging waste management in Slovenia, detailed requirements and obligations for separate collection are defined in the Decree on the obligatory municipal public service of waste collection and the Decree on packaging and packaging waste. The responsibility for attaining recycling targets, as set in the Packaging and Packaging Waste Directive, sits with the packaging producers. Through EPR schemes, producers are responsible for the treatment of separately collected packaging waste, and proper treatment thereof, as required by the objectives in the legislation. The public service provider for waste collection collects plastic, metal and composite packaging waste through co-mingled door-to-door collection and hands over the separately collected waste to the Producer Responsibility Organisation (PRO) free of charge. However, a part of the collection costs are covered by the PRO. Slovenia is planning to introduce full cost financial coverage of the EPR scheme in line with the minimal requirements for EPR systems set by the WFD. (Ministry of the Environment and Spatial Planning and Slovenian Environment Agency, 2021; Government of Slovenia, 2018b, 2021b)

Related to enforcement mechanisms, the public service providers for waste collection have no specific targets to attain, and no consequences for non-compliance. Offenses for breaching the requirements on service level are being fined. (Ministry of the Environment and Spatial Planning and Slovenian Environment Agency, 2021)

The proposal for the new Environmental Protection Act (ZVO-2) enables the Ministry of the Environment and Spatial Planning of the Republic of Slovenia, in case of non-compliance with waste management requirements, to define measures to comply with the requirements and set deadlines for the implementation of these measures. As the requirements are based on service requirements and not recycling performance, if the public service provider for waste collection and the PROs all meet the requirements and recycling levels are still lower than EU targets, additional legislative measures must be taken to further increase recycling. (Ministry of the Environment and Spatial Planning and Slovenian Environment Agency, 2021)

The Waste Management Program and the Waste Prevention Program of the Republic of Slovenia (Government Decision No. 35402-1/2016/6 of 30 June 2016, Government Decision No. 35405-17/2021-2550) envisages the introduction of additional measures for those municipalities that do not reach the Slovenian average share of separate collection of municipal waste in 2019. This is done via the requirement of additional measures by the public service providers to increase the separate

collection rates. In addition, to support the separate collection of recyclables, the Slovenian authorities are planning to support the exchange of good practices between municipalities, all with the aim of increasing the separate collection of MSW.

Related to enforcement mechanisms for packaging waste, the producers have full responsibility for attaining recycling targets. In case of non-compliance, fines or other measures can be introduced, such as withdrawal of a permit for a packaging waste management company whose collective system does not meet the objectives. Even withdrawal of the authorisation of the PRO to act as representative for the producers is possible. (Ministry of the Environment and Spatial Planning and Slovenian Environment Agency, 2021)

Summary result

Clearly defined responsibilities and enforcement mechanisms but no/weak support tools for meeting the recycling targets	In Slovenia, the Ministry of the Environment and Spatial Planning is responsible for meeting the recycling targets. Slovenia also presents clearly defined enforcement mechanisms for meeting the targets on recycling of MSW. However, support tools are limited to the planned exchange of good practices. Other possible support tools are not reported, such as technical support, sharing of good practices, training, co-operation on infrastructure planning etc. to support the implementation of best practises to support improvement in performance and increasing the recycling rates.
Robustness of the underlying information	Credible information received from the Slovenian authorities through the EEA-ETC/WMGE questionnaire

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.

Slovenia has a landfill tax of EUR 11 per tonne of landfilled non-hazardous waste. Since 2011, Slovenia has also introduced a landfill ban for biodegradable waste, based on calorific value and total organic content, including residual MSW and separately collected waste. (Ministry of the Environment and Spatial Planning and Slovenian Environment Agency, 2021; Government of Slovenia, 2021a)

Summary result

Ban in place for landfilling residual or biodegradable waste	Slovenia has a landfill ban for biodegradable waste.
Robustness of the underlying information	Credible information received from the Slovenian authorities through the EEA-ETC/WMGE questionnaire.

SRF MSWR-3.2: Taxes on municipal waste incineration

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

Slovenia does not implement a tax on incineration of MSW and is not planning to do so in the near future. (Ministry of the Environment and Spatial Planning and Slovenian Environment Agency, 2021)

Summary result

No incineration taxes	Slovenia does not implement a tax on incineration
Robustness of the underlying information	Credible information received from the Slovenian authorities through the EEA-ETC/WMGE questionnaire.

*rescaled based on purchasing power parities

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

PAYT systems are designed to incentivise 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.

Slovenia has a fully rolled out PAYT system, covering 100 % of the population. The Decree on the methodology for determining prices of obligatory municipal public services for environmental protection defines a methodology for pricing waste management services. The price is based either on waste container volume and the frequency of collection or by actual weight, however, the latter is not commonly used due to high costs. (Ministry of the Environment and Spatial Planning and Slovenian Environment Agency, 2021; Government of Slovenia, 2019)

The system can be characterised as a weak PAYT scheme as the economic incentive to sort waste at source is not very visible to citizens compared to weight-based or sack-based schemes.

Summary result

PAYT scheme fully rolled out (to at least 80% of the population)	Slovenia has a fully rolled-out PAYT system based mostly on waste container volume and the frequency of collection.
Robustness of the underlying information	Slovenia describes the PAYT as partially implemented although it covers 100 % of the population. The PAYT payment based on weighing is only partially rolled out. Credible information received from the Slovenian authorities through the EEA-ETC/WMGE questionnaire, the methodology is stated in legislation.

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 km², bring points with a density of < 5 per km², 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 takes 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 Slovenia, according to the most recent data, the percentage of households living in cities is 21 %, in towns and suburbs 34 % and in rural areas 45 % (Eurostat, 2021b).

Residual waste as well as bio-waste are collected through door-to-door collection, food and garden waste are collected together. Packaging made of plastic, metal and composite material are collected co-mingled through door-to-door collection. Containers or bags for door-to-door waste collection must be weighed during collection. For households doing home composting, the bio-waste collection is not mandatory. (Ministry of the Environment and Spatial Planning and Slovenian Environment Agency, 2021)

Waste paper and cardboard (both packaging and non-packaging) are collected at bring points and partly door-to-door, and glass packaging waste, WEEE and textiles are collected at bring points as well as at civic amenity sites. Slovenia has only low-density bring points. The bring points serve all MSW producers, both households and non-households, except of trade, industry, crafts or service activities that are served by private waste collection companies. The requirements for density and service level (frequency of collection) of the bring points in Slovenia are such, that at least one bring point needs to be established for every 500 inhabitants. In addition to bring points in residential areas, also larger shops and shopping centres, health centres, hospitals, schools, kindergartens and other institutions must have a bring point for waste collection. In addition, in urban areas with several multi-apartment buildings, one bring point needs to be established for every 400 inhabitants. The implemented number of bring points in Slovenia corresponds to 757 per 100 000 inhabitants or one per every 132 inhabitants. (Ministry of the Environment and Spatial Planning and Slovenian Environment Agency, 2021)

In areas with less than 300 inhabitants, packaging plastic, metal and composite material waste is not required to be collected as door-to-door co-mingled but can be collected at bring points. The requirement is then such, that one bring point needs to be established for every 300 inhabitants. (Ministry of the Environment and Spatial Planning and Slovenian Environment Agency, 2021)

Civic amenity sites in Slovenia serve all MSW producers, both households and non-households. Civic amenity sites collect all separately collected waste fractions, including also WEEE, hazardous waste and bulky waste, but excluding residual MSW and bio-waste. All municipalities with more than 3,000 inhabitants must have a civic amenity site; smaller municipalities do not need to have a civic amenity site in case the inhabitants can use the civic amenity site of a neighbouring municipality. In larger municipalities, one civic amenity site per 20,000 inhabitants must be established and in areas with more than 100,000 inhabitants one civic amenity site per 80,000 inhabitants is required. The implemented number of civic amenity sites in Slovenia is 159 in total, corresponding to 7.7 per 100,000 inhabitants. There are also specific requirements for the service hours of the civic amenity sites to ensure a high service level. (Ministry of the Environment and Spatial Planning and Slovenian Environment Agency, 2021)

The collection system in Slovenia distinguishes between packaging waste and non-packaging waste so that packaging waste is collected door-to-door and at bring points, while non-packaging waste is collected at civic amenity sites. (Ministry of the Environment and Spatial Planning and Slovenian Environment Agency, 2021)

Also, companies are obliged to sort their waste for separate collection. The bring points and civic amenity sites serve all MSW producers, both households and non-households. For non-households, there are fines for not separating the generated waste into specific fractions. For non-households, the separate collection of the following fractions is mandatory (Ministry of the Environment and Spatial Planning and Slovenian Environment Agency, 2021):

- Paper and cardboard
- Ferrous metals
- Aluminium
- Glass
- Plastic
- Wood
- Bio-waste
- Waste edible oils and fats

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

Table 2.1 Characterisation of the collection system in Slovenia

	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 km ²)	Bring point (<5 per km ²)	Civic amenity site	Door-to-door - separate	Door-to-door - co-mingled	Bring point (>5 per km ²)	Bring point (<5 per km ²)	Civic amenity site	Door-to-door - separate	Door-to-door - co-mingled	Bring point	Civic amenity site
Residual waste	xx					xx					xx			
Paper and Cardboard	xx		xx		x				xx	x			xx	x
Ferrous metals		xx			x		xx			x		xx		x
Aluminium		xx			x		xx			x		x		x
Glass				xx	x				xx	x			xx	x
Plastic		xx		x	x		xx		x	x		xx	x	x
Bio-waste	xx					xx					xx			
food														
garden														
Textiles				x	x				x	x			x	x
Wood					x					x				x
WEEE				x	x				x	x			x	x
Composite packaging		xx		x	x		xx		xx		xx		x	x

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

Source: Ministry of the Environment and Spatial Planning and Slovenian Environment Agency (2021)

The table above shows that even though Slovenia has a significantly high coverage of bring-points per inhabitant, the density of the population is quite low and thus, the service is focused on low-density bring points and civic amenity sites.

Summary result

Paper and cardboard	A high share of the population is covered by high convenience collection services	In cities, both door-to-door collection and high-density bring points are the dominant systems for paper and cardboard waste, and in suburbs and rural areas, low-density bring points are dominating.
Metals	A high share of the population is covered by high convenience collection services	Door-to-door co-mingled collection of packaging made of metals, plastics and composite materials is the dominant system. Non-packaging metals are collected at civic amenity sites.
Plastics	A high share of the population is covered by high convenience collection services	Door-to-door co-mingled collection of packaging made of metals, plastics and composite materials is the dominant system. Non-packaging plastics are collected at civic amenity sites.
Glass	A high share of the population is covered by high convenience collection services	Low-density bring points is the dominant system. Civic amenity sites are available in the whole country.
Bio-waste	A high share of the population is covered by high convenience collection services	Bio-waste (food and garden waste together) is collected through door-to-door separate collection, providing a convenient system for citizens.
Wood	A low share of the population is covered by high convenience collection services	Collection at civic amenity site is the only collection system for wood waste in Slovenia
Textiles	A low share of the population is covered by high convenience collection services	Low-density bring points and civic amenity sites are the available collection system in the whole country.
WEEE	Medium convenience collection services dominate	Low-density bring points and civic amenity sites are the available collection system in the whole country.
Robustness of the underlying information		Credible information received from the Slovenian 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

Slovenia is not planning to improve the service level of the separate collection system (Ministry of the Environment and Spatial Planning and Slovenian Environment Agency, 2021).

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)	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)	A high share of the population is already covered by high convenience collection services
Plastics	N/A (for countries in which a high share of the population is already covered by high convenience collection services)	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)	A high share of the population is already covered by high convenience collection services
Bio-waste	N/A (for countries in which a high share of the population is already covered by high convenience collection services)	A high share of the population is already covered by high convenience collection services
Wood	No firm plans to improve the convenience and coverage	Slovenia is not planning to improve the service level
Textiles	No firm plans to improve the convenience and coverage	Slovenia is not planning to improve the service level
WEEE	No firm plans to improve the convenience and coverage	Slovenia is not planning to improve the service level
Robustness of the underlying information		Credible information received from the Slovenian 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 Producer Responsibility Organisation (PRO) that producers report correctly.

In Slovenia, there are six active PROs for packaging (Ministry of the Environment and Spatial Planning and Slovenian Environment Agency, 2021):

- DINOS d.o.o.
- EMBAKOM d.o.o.
- SUROVINA d.o.o.
- INTERSEROH d.o.o.
- RECIKEL d.o.o.
- SLOPAK d.o.o.

EPR in Slovenia covers packaging waste from both household and non-household sources and covers the following materials (Ministry of the Environment and Spatial Planning and Slovenian Environment Agency, 2021):

- Paper and cardboard packaging
- Ferrous metals packaging

- Aluminium packaging
- Glass packaging
- Plastic packaging
- Wood packaging
- Other packaging materials (ceramics, textiles,...)
- Composite packaging

In order to prevent free-riding of EPR obligations, all producers (packagers and importers) placing packaging or packaged goods on the market must fulfil the EPR obligations (Ministry of the Environment and Spatial Planning and Slovenian Environment Agency, 2021). Private online importers must contribute to the payment of the prescribed costs of packaging waste management until the foreign company (supplier) fulfils its EPR obligations.

EPR schemes in Slovenia do not utilise advanced fee modulation based on, for example, recyclability and material choice within the material group. The fees used in EPR are set by PRO but are basic, and as such do not create incentives for design for recycling nor create favourable conditions for higher recycling rates. (Ministry of the Environment and Spatial Planning and Slovenian Environment Agency, 2021).

Summary result

No advanced fee modulation	In Slovenia, there is no advanced fee modulation in EPR schemes
Robustness of the underlying information	Credible information received from the Slovenian authorities through the EEA-ETC/WMGE questionnaire.

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.

As reported by the Slovenian authorities, the country's separately collected bio-waste amounted to 155 thousand tonnes in 2019. The total generation of bio-waste within total municipal waste, including separately collected bio-waste and bio-waste present in the residual waste fraction, was 217 thousand tonnes (calculated based on data provided by the Slovenian authorities). The reported bio-waste treatment capacity of 572 thousand tonnes is significantly higher than the total generation of bio-waste. However, this capacity includes also capacity for other than MSW. (Ministry of the Environment and Spatial Planning and Slovenian Environment Agency, 2021)

The bio-waste treatment capacity in Slovenia consist of 23 composting plants and 17 biogas plants, in 2019 the total treatment volume was 331 thousand tonnes of which 49 % was municipal bio-waste (Slovenian Ministry of the Environment, 2021b, 2021a; Ministry of the Environment and Spatial Planning and Slovenian Environment Agency, 2021). If 49 % of the total reported bio-waste treatment capacity was free for municipal bio-waste, the available capacity would still significantly surpass the total municipal bio-waste generation.

Summary result

Enough bio-waste treatment capacity for 80% of generated municipal bio-waste	Slovenia reports high capacities for bio-waste treatment of which all is not in use. The capacities surpass the total bio-waste generation.
Robustness of the underlying information	Credible information received from the Slovenian 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.

Slovenia has legally binding national standards for compost/digestate quality in place, as well as a quality management system (EEA, 2020).

Summary result

Legally binding national standards for compost/digestate quality in place, and quality management system in place	Legally binding national standards for compost/digestate quality in place, and quality management system in place
Robustness of the underlying information	The information is based on published legal standards.

2.2 Target for the recycling of packaging waste

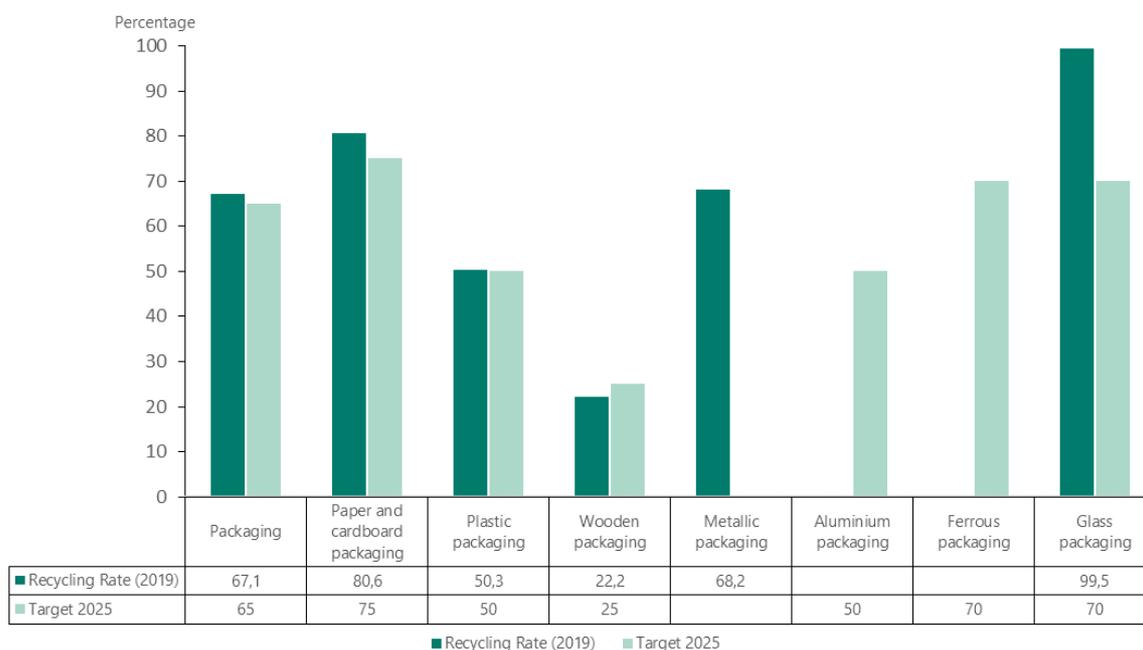
This chapter aims at assessing the prospects of Slovenia to achieve the **65 % recycling target for packaging waste** in 2025 as well as the **material specific packaging waste recycling targets** (50 % of plastic; 25 % of wood; 70 % of ferrous metals; 50 % of aluminium; 70 % of glass; 75 % of paper 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 or not meeting the target. This analysis is based on data reported by Slovenia to Eurostat in accordance with Commission Decision 2005/270/EC as last amended by the Commission Implementing Decision 2019/665 (EC, 2019), 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 Slovenia for 2019 is illustrated in Figure 2.2.

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



Note: No data available for ferrous and aluminium packaging, only for metallic packaging

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

For Slovenia the reported recycling rates for most packaging wastes meet or exceed the targets. For metals, the reported rates do not make a distinction between ferrous metals and aluminium, and while the combined rate for metallic packaging is above the target for aluminium packaging, it is below the target for steel packaging. (Eurostat (2021c))

However, the recycling rates presented here are based on the calculation rules of the Commission Decision 2005/270 before it was amended by the Commission Implementing Decision 2019/665, and

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. Slovenia has not carried out an assessment of the impact of the new calculation rules. Slovenian authorities do, however, expect to achieve the recycling targets for packaging waste also with the new calculation methodology (Ministry of the Environment and Spatial Planning and Slovenian Environment Agency, 2021)

As a matter of sensitivity analysis, to assess what the impact of these new calculation rules could be (change in calculation point), recycling losses 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 80.6 % to 72.5 %
- Metal packaging: decrease by 14 %, from 68.2 % to 58.7 %
- Glass packaging: decrease by 5 %, from 99.5 % to 94.5 %
- Plastic packaging: decrease by 21 %¹, from 50.3 % to 39.7 %
- Wooden packaging: decrease by 11 % from 22.2 % to 19.8%
- Total packaging²: Calculated based on the amounts of each packaging material generated and recycled in 2019, the recycling rate would drop from 67.1 % to 59.8 %.

Taking these recycling losses into account Slovenia would still exceed the recycling targets for glass and aluminium packaging, whereas the recycling rates of all other fractions as well as total packaging would be below the target levels.

The data for packaging waste generation is obtained by producers and operators managing packaging (Eurostat, 2020), which pay taxes for the packaging put on the market. Data are checked by tax inspectors and compared annually with data reported to the Environmental Agency of the Republic of Slovenia (ARSO) by packaging waste companies as obtained from producers. No estimates are done for foreign online sales, private imports/exports, free riders or units below the reporting threshold (Eurostat, 2021a).

Summary result

Total packaging	5 - 15 percentage points below target	Slovenia reports a recycling rate of 67.1 %. However, if the new calculation rules are applied (taking into account losses in the recycling plants), the estimated recycling rate would drop to 59.8 %, 5.2 percentage points below the 2025 target.
Paper and cardboard packaging	< 5 percentage points below target	Slovenia reports a recycling rate of 80.6 %. However, if the new calculation rules are applied (taking into account losses in the recycling plants), the estimated recycling rate would drop to 72.5 %, 2.5 percentage points below the target.
Ferrous metals packaging	5 - 15 percentage points below target	Slovenia reports a recycling rate of 68.2 % for metallic packaging. However, if the new calculation rules are applied (taking into account losses in the

¹ 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 %).

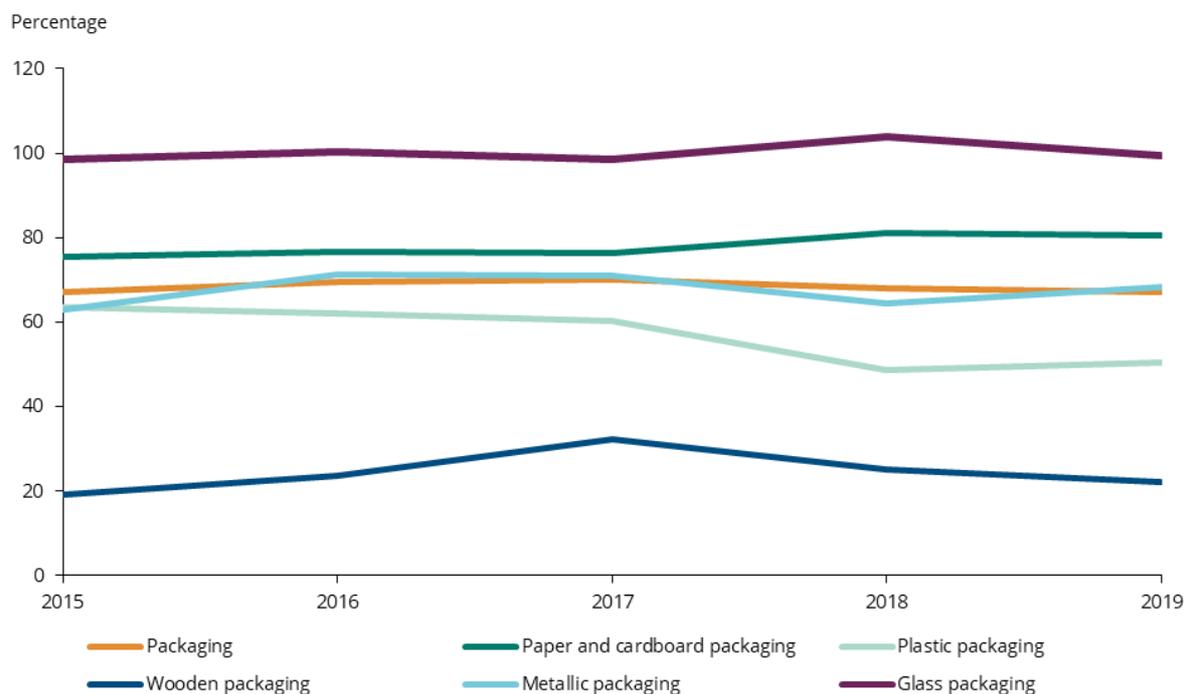
² For other packaging, a loss of 10 % is assumed for the calculation.

Aluminium packaging	Target exceeded	recycling plants), the estimated recycling rate would drop to 58.7 %, 11.3 percentage points below the target for ferrous packaging and 8.7 percentage points above the target for aluminium
Glass packaging	Target exceeded	Slovenia reports a recycling rate, of 99.5 %. However, if the new calculation rules are applied (taking into account losses in the recycling plants), the estimated recycling rate would drop to 94.5 %, 24.5 percentage points above the target.
Plastics packaging	5 - 15 percentage points below target	Slovenia reports a recycling rate of 50.3 %. However, if the new calculation rules are applied (taking into account losses in the recycling plants), the estimated recycling rate would drop to 39.7 %, 10.3 percentage points below the target.
Wooden packaging	5 - 15 percentage points below target	Slovenia reports a recycling rate of 22.2 %. However, if the new calculation rules are applied (taking into account losses in the recycling plants), the estimated recycling rate would drop to 19.8 %, 5.2 percentage points below the target.
Robustness of the underlying information		The assessment is limited by the fact that the recycling rates for 2019 reported by Slovenia 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. No estimates are done to account for packaging put on the market by free riders, units below the threshold, etc. The assessment for ferrous metals and aluminium is uncertain as data only refer to total metals packaging.

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 Slovenia are illustrated in Figure 2.3.

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



Note: Provisional data for plastic- and glass packaging for 2018

Source: Eurostat (2022c)

The overall packaging recycling rate has overall been stable in Slovenia during the five-year time period between 2015 and 2019. However, the recycling of plastic packaging has decreased significantly with 20.7 percentage points due to a change in the reporting system and also due to a change in legislation such that recovered waste as waste-derived fuel is not considered to be recycling (Eurostat, 2020). Recycling of wooden packaging has fluctuated and returned to the same level as the one in 2015. Paper and cardboard has been steadily increasing by 6.6 percentage points. The recycling rate of metallic packaging has increased by 8.6 percentage during the five-year time period 2015-2019, while the recycling rate of glass packaging has increased by 1 percentage point. (Eurostat, 2021c)

Summary result

Total packaging	RR > 55%, and increase in last 5 years < 10 percentage points	The recycling rate increased by 0.1 percentage points over the past five years and is estimated at 59.8 % if the new calculation rules would be applied (taking into account losses in the recycling plants)
Paper and cardboard packaging	RR > 70% and increase in last 5 years > 5 percentage points	The recycling rate increased by 5.0 percentage points over the past five years and is estimated at 72.5 % if the new calculation rules would be applied (taking into account losses in the recycling plants)
Ferrous metals packaging	RR < 60% and increase in last 5 years < 10 percentage points	The recycling rate increased by 5.4 percentage points over the past five years and is estimated at 58.7 % if the new calculation rules would be applied (taking into account losses in the recycling plants).
Aluminium packaging	RR > 50%	No separate data are available for aluminium and steel packaging waste.

Glass packaging	RR > 70%	The recycling rate increased by 1 percentage points over the past five years and is estimated at 94.5 % if the new calculation rules would be applied (taking into account losses in the recycling plants)
Plastic packaging	RR < 40% and increase in last 5 years < 10 percentage points	The recycling rate decreased by 13.1 percentage points over the past five years and is estimated at 39.7 % if the new calculation rules would be applied (taking into account losses in the recycling plants)
Wooden packaging	RR > 15% and increase in last 5 years > 10 %	The recycling rate decreased by 2.9 percentage points over the past five years and is estimated at 19.8 % if the new calculation rules would be applied (taking into account losses in the recycling plants)
Robustness of the underlying information		The assessment is limited by the fact that the recycling rates for 2019 reported by Slovenia 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. There are some uncertainties whether all packaging put on the market is reported and included in the waste generation. The assessment for ferrous metals and aluminium is uncertain as data only refer to total metals packaging.

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.

Slovenia transposed the PPWD into national law on 20 May 2021, so more than 10 months after the deadline of 5 July 2020.

Summary result

Transposition with a delay of less than 12 months	Slovenia transposed the PPWD into national law in May 2021.
Robustness of the underlying information	Information provided by the European Commission (status as of 12 November 2021)

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

As described in Section 2.1.2 in more detail, in Slovenia the producers have full responsibility for attaining recycling targets, enforced by fines for non-compliance. However, Slovenia does not report support tools, such as technical support, sharing of good practices, training, co-operation on infrastructure planning etc to support the implementation of best practises to support improvement in performance and increasing the recycling rates.

Summary result

Clearly defined responsibilities and enforcement mechanisms but no/weak support mechanism for meeting the recycling targets	The producers have full responsibility for attaining recycling targets, enforced by fines and withdrawal of a permits for non-compliance. However, Slovenia does not report support tools to support the implementation of best practises to support improvement in performance and increasing the recycling rates.
Robustness of the underlying information	Credible information received from the Slovenian 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, Slovenia has a landfill tax and a landfill ban for biodegradable waste in place.

Summary result

Ban in place for landfilling residual or biodegradable waste	Slovenia has a landfill ban for biodegradable waste.
Robustness of the underlying information	Credible information received from the Slovenian authorities through the EEA-ETC/WMGE questionnaire.

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, Slovenia does not implement a tax on waste incineration.

Summary result

No incineration taxes	Slovenia does not implement a tax on incineration
Robustness of the underlying information	Credible information received from the Slovenian 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.

According to the information available, Slovenia implements taxes on packaging set in the Decree on the environmental tax on packaging waste pollution (Republic of Slovenia, 2018). The tax rates are 1 EUR/kg of packaging material for all materials except for plastics made of polymers of vinyl chloride or other halogenated olefins for which the rate is 300 EUR/kg. A lower rate applies for certain packaging made of biodegradable material. (Ministry of the Environment and Spatial Planning and Slovenian Environment Agency, 2021; Government of Slovenia, 2018a)

Summary result

Packaging taxes in place	Slovenia implements taxes on packaging
Robustness of the underlying information	Credible information received from the Slovenian 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.

As described in Section 2.1.3 in more detail, Slovenia has a fully rolled-out PAYT system.

Summary result

PAYT scheme fully rolled-out (to at least 80% of the population)	Slovenia has a fully rolled out PAYT system based on waste container volume and the frequency of collection.
Robustness of the underlying information	Slovenia describes the PAYT as partially implemented although it covers 100 % of the population. The PAYT payment based on weighing is only partially rolled-out. Credible information received from the Slovenian 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.

Slovenia has a voluntary DRS covering only reusable packaging including glass, plastic, wooden, metallic and other packaging. (Ministry of the Environment and Spatial Planning and Slovenian Environment Agency, 2021; Government of Slovenia, 2013)

Summary result

Aluminium drink cans	Voluntary DRS for some drink cans	The Slovenian DRS is voluntary and covers only reusable packaging
Glass drink bottles	Voluntary DRS for some drink bottles	The Slovenian DRS is voluntary and covers only reusable packaging
Plastic drink bottles	Voluntary DRS for some drink bottles	The Slovenian DRS is voluntary and covers only reusable packaging
Plastic crates	Voluntary DRS for some plastic crates	The Slovenian DRS is voluntary and covers only reusable packaging
Wooden packaging	Voluntary DRS for some wooden packaging	The Slovenian DRS is voluntary and covers only reusable packaging
Robustness of the underlying information		Credible information received from the Slovenian 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.

According to estimates for the reference year 2019, 42 % of all packaging waste (total group 15 01) generated came from households and 58 % from production and service activities (Ministry of the Environment and Spatial Planning and Slovenian Environment Agency, 2021).

As described in Section 2.1.4 in more detail, separate collection is mandatory in Slovenia for both households and also for businesses and companies. The collection system in Slovenia distinguishes between packaging waste and non-packaging waste so that packaging waste is collected door-to-door and at bring points, while non-packaging recyclables and packaging waste generated by companies are separately collected at civic amenity sites. In cities, door-to-door co-mingled collection is the dominant system for packaging waste of paper and cardboard, metals, plastics and composite packaging. In suburbs and rural areas, low-density bring points are dominant. Approximately 90 % of the population is served by door-to-door co-mingled collection of packaging waste. Glass packaging is collected through low-density collection points, with an average access to 7.6 collection points per 1 000 inhabitants (Ministry of the Environment and Spatial Planning and Slovenian Environment Agency, 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	Door-to-door co-mingled collection and high-density bring points are the dominant systems.
	2. Packaging waste from non-household sources Separation at source is mandatory for non-household paper and cardboard packaging waste	Separate collection is mandatory in Slovenia for companies
Ferrous metals packaging	1. Packaging waste from households A high share of the population is covered by high convenience collection services	Door-to-door co-mingled collection is the dominant system.
	2. Packaging waste from non-household sources Separation at source is mandatory for non-household ferrous metals packaging waste	Separate collection is mandatory in Slovenia for companies
Aluminium packaging	Packaging waste from households A high share of the population is covered by high convenience collection services	Door-to-door co-mingled is the dominant system

Glass packaging	1. Packaging waste from households A high share of the population is covered by high convenience collection services	Low-density bring points are the available collection system in the whole country.
	2. Packaging waste from non-household sources Separation at source is mandatory for non-household glass packaging waste	Separate collection is mandatory in Slovenia for companies
Plastics packaging	1. Packaging waste from households A high share of the population is covered by high convenience collection services	Door-to-door co-mingled is the dominant system
	2. Packaging waste from non-household sources Separation at source is mandatory for non-household plastic packaging waste	Separate collection is mandatory in Slovenia for companies
Wooden packaging	Packaging waste from non-household sources Separation at source is mandatory for non-household wooden packaging waste	Separate collection is mandatory in Slovenia for companies
Robustness of the underlying information		Credible information received from the Slovenian 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 waste³. Again, the material specific assessment considers packaging waste from both household and non-household sources.

As described in Section 2.1.4 in more detail, Slovenia is not planning to improve the service level of the separate collection system. Since Slovenia scores green in all categories on convenience and coverage, this SRF is not relevant.

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

Summary result

Paper and cardboard packaging	1. Packaging waste from households N/A (for countries in which a 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)	
Ferrous metals packaging	1. Packaging waste from households N/A (for countries in which a 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 high share of the population is already covered by high convenience collection services)	
Plastics packaging	1. Packaging waste from households N/A (for countries in which a 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)	
Glass packaging	1. Packaging waste from households N/A (for countries in which a 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 Slovenian 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

As described in Section 2.1.5 in more detail, in Slovenia there are six active PROs covering packaging waste from both household and non-household sources and covering all packaging materials.

Summary result

All main packaging fractions ^(a) are covered by EPR schemes, covering household and non-household packaging	In Slovenia, there is an EPR system in place, covering packaging waste from both household and non-household sources for all packaging materials
Robustness of the underlying information	Credible information received from the Slovenian 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

As described in Section 2.1.5 in more detail, Slovenia does not apply fee modulation in the EPR scheme.

Summary result

No advanced fee modulation	Slovenia does not apply advanced fee modulation in the EPR scheme.
Robustness of the underlying information	Credible information received from the Slovenian authorities through the EEA-ETC/WMGE questionnaire.

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 plastics 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 in Section 2.1.5, the EPR covers packaging waste from both household and non-household sources and the EPR in Slovenia does not apply fee modulation.

Summary result

SRF P-5.3.1 EPR scheme for Paper and cardboard packaging waste	EPR scheme covering household and non-household packaging	Slovenia does not apply fee modulation in the EPR scheme. The EPR scheme covers packaging waste from both household and non-household sources.
SRF P-5.3.2 EPR scheme for Ferrous metals packaging waste	EPR scheme covering household and non-household packaging	Slovenia does not apply fee modulation in the EPR scheme. The EPR scheme covers packaging waste from both household and non-household sources.
SRF P-5.3.3 EPR scheme for Aluminium packaging waste	EPR scheme covering household and non-household packaging	Slovenia does not apply fee modulation in the EPR scheme. The EPR scheme covers packaging waste from both household and non-household sources.
SRF P-5.3.4 EPR scheme for Glass packaging waste	EPR scheme covering household and non-household packaging	Slovenia does not apply fee modulation in the EPR scheme. The EPR scheme covers packaging waste from both household and non-household sources.
SRF P-5.3.5 EPR scheme for Plastic packaging waste	EPR scheme but without fee modulation	Slovenia does not apply fee modulation in the EPR scheme. The EPR scheme covers packaging waste from both household and non-household sources.
SRF P-5.3.6 EPR scheme for Wooden packaging waste	EPR scheme covering all non-household packaging	The EPR scheme covers packaging waste from all non-household sources.
Robustness of the underlying information		Credible information received from the Slovenian 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 Slovenia was 6.7 % in 2020 (Eurostat, 2022a).

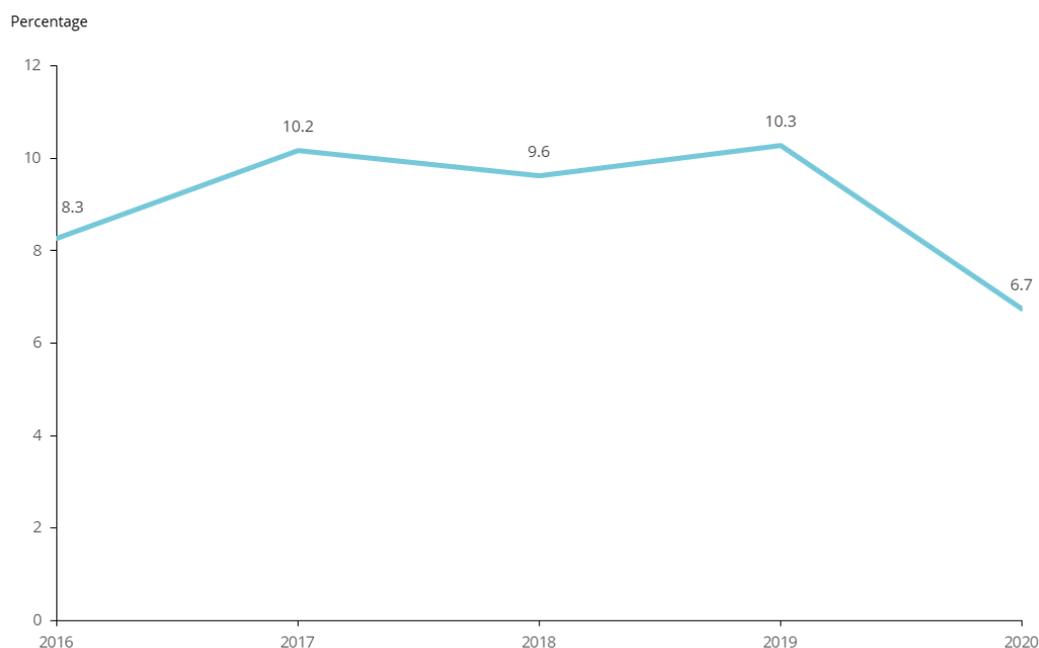
Summary result

Target exceeded	The target is exceeded in Slovenia, with a landfilling rate of 6.7 % in 2020
Robustness of the underlying information	The data are derived from Eurostat and are considered to be rather robust. 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 five years, the overall landfilling rate of Slovenia has decreased from 8.3 % in 2016 to 6.7 % in 2020 (Figure 2.4).

Figure 2.4 Landfilling in Slovenia between 2016 and 2020, in percentage



Source: Eurostat (2022a)

Summary result

Landfill rate in 2020 < 10 %	The Landfill rate in 2020 is 6.7 %. It has only decreased slightly from 8.3 % in 2016.
Robustness of the underlying information	The data can be considered robust.

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, Slovenia has benefited from a four-year derogation period and thus had to meet the target by 2020.

Slovenia reported to have landfilled 445 thousand 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 that 15 % biodegradable waste was landfilled in 2019 in comparison to the biodegradable waste landfilled in 1995, and performs therefore well within the target (EC, 2021).

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	Slovenia has reported 15 % biodegradable waste landfilled in 2019 in comparison to the biodegradable waste landfilled in 1995 and performs therefore well within the target.
Robustness of the underlying information	The data can be considered robust.

3 Conclusion

This risk assessment indicates whether Slovenia is at risk of not meeting the targets. The ‘total risk’ categorisation 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 Slovenia, only the SRFs relevant to Slovenia are taken into account to define the maximum score. Slovenia 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

<p>74 % of maximum score</p>	<p>Based on the provided information and the analysis done, it is concluded that Slovenia is not at risk for not meeting the MSW recycling target in 2025.</p>
<p>Current situation and past trends:</p>	<p>Based on currently available data Slovenia’s recycling rate lies at 59.3 %, 4.3 % above the 2025 target. Considering, however, the impact of the new calculation rules, we assume a reduction with 5 percentage points for this assessment, resulting in an estimated recycling rate of 54.3 %, still very close to the target. The rate has been increasing between 2015 and 2020 by 3.7 percentage points.</p>
<p>Legal instruments:</p>	<p>The amended WFD has not been fully transposed into national law yet.</p> <p>In Slovenia, the Ministry of the Environment and Spatial Planning is responsible for meeting the recycling targets. The responsibilities of municipalities and service providers are based on service requirements and not recycling performance. Enforcement mechanism towards service providers in case of non-compliance with targets are based on the requirement of additional measures towards the public service providers to increase the separate collection rates. However, Slovenia does not report support tools, such as technical support, sharing of good practices, training, co-operation on infrastructure planning etc. to support the implementation of best practises to support improvement in performance and increasing the recycling rates.</p>
<p>Economic instruments:</p>	<p>There is a landfill ban for biodegradable waste and a landfill tax for non-hazardous waste, but no tax on incineration.</p> <p>A PAYT system has been rolled-out based on waste container volume and the frequency of collection.</p>

<p>Separate collection systems:</p>	<p>The low generation of residual waste in Slovenia shows that the current separate collection system provides a high service level and has sufficient supporting measures to encourage sorting at source and to reduce the generation of residual waste.</p> <p>A high share of the population is covered by high convenience collection services for paper and cardboard, bio-waste and glass, as well as packaging of metals, plastics and composite material. Non-packaging plastics and metals are collected only at civic amenity sites.</p> <p>A medium share of the population is covered by high convenience collection services for WEEE.</p> <p>A low share of the population is covered by high convenience collection services for wood and textiles.</p> <p>Slovenia is currently not planning to improve the service level of the separate collection system. However, measures are envisaged for underperforming municipalities in terms of separate collection rates.</p>
<p>Extended producer responsibility:</p>	<p>EPR schemes are in place for packaging waste from households and non-households, but there is no advanced fee modulation.</p>
<p>Bio-waste treatment capacity and quality management:</p>	<p>Bio-waste treatment capacity is high and it is not all in use. The capacities surpass the total bio-waste generation.</p> <p>Legally binding national standards for compost/digestate quality are in place, and there is also a quality management system for compost/digestate.</p>

3.2 Prospects for meeting the recycling targets for packaging waste

63 % of maximum score	Based on the provided information and the analysis done, it can be concluded that Slovenia is not at risk for not meeting the 65 % recycling targets for packaging waste in 2025.	
83 % of maximum score	Paper and cardboard	Not at Risk
60 % of maximum score	Ferrous metals packaging	Not at Risk
78 % of maximum score	Aluminium packaging	Not at Risk
78 % of maximum score	Glass packaging	Not at Risk
50 % of maximum score	Plastics packaging	Not at Risk
66 % of maximum score	Wooden packaging	Not at Risk
Current situation and past trends:	<p>The total packaging waste recycling rate (revised estimate to account for the impact of the new calculation rules) is 67.1 %, exceeding the 2025 target of 65 %. However, if the new calculation rules are applied (taking into account losses in the recycling plants), the estimated recycling rate would drop to 59.8 %, 5.2 percentage points below the 2025 target.</p> <p>Again, if the new calculation rules are applied, waste streams that are between 5 and 15 percentage points below target are ferrous metals packaging, plastics packaging and wooden packaging. For the other packaging waste streams, the target is exceeded or the distance to target is less than 5 percentage points.</p> <p>The overall packaging recycling rate has been generally stable in Slovenia during the five-year time period between 2015 and 2019: it has increased with only 0.1 percentage points.</p> <p>There are some uncertainties whether all packaging put on the market is reported and included in the waste generation, and the assessment for ferrous metals and aluminium are uncertain as data only refers to total metals packaging.</p>	
Legal instruments:	<p>The amended Packaging and Packaging Waste Directive was transposed into national law in May 2021.</p> <p>Producers have responsibility for attaining recycling targets, enforced by fines and withdrawal of a permits for non-compliance. However, Slovenia does not report support tools to support the implementation of best practises to support improvement in performance and increasing the recycling rates.</p>	

Economic instruments:	<p>Slovenia has a landfill ban for biodegradable waste. No incineration tax is in place.</p> <p>Slovenia implements taxes on packaging. The tax rates are 1 EUR/kg of packaging material for all materials except for plastics made of polymers of vinyl chloride or other halogenated olefins for which the rate is 300 EUR/kg. A lower rate applies for certain packaging made of biodegradable material.</p> <p>Slovenia has a fully rolled out PAYT system based on waste container volume and the frequency of collection.</p> <p>No mandatory DRS is in place. The Slovenian DRS is voluntary and covers only reusable packaging</p>
Separate collection systems:	<p>The low generation of residual waste in Slovenia shows that the current separate collection system provides a very high service level and has sufficient supporting measures to encourage sorting at source and to reduce the generation of residual waste.</p> <p>The coverage and convenience level for the collection of packaging waste is high for all materials, including both household and non-household sources.</p> <p>There are currently no firm plans to improve the separate collection system in general, but the Waste Management Plan foresees improvement actions in those municipalities below the average level of separate collection.</p>
Extended producer responsibility:	<p>There is an EPR system in place, covering packaging waste from both household and non-household sources for all packaging materials. However, no advanced fee modulation is applied to improve the design of packaging towards better recyclability.</p>

3.3 Prospects of meeting the landfill of municipal waste target

100 % of maximum score	Based on the provided information and the analysis done, it is concluded that Slovenia is not 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 Landfill rate in 2020 is 6.7 %. It has decreased by 1.6 percentage points in the past five years, from 8.3 % in 2016.
Diversion of biodegradable municipal waste from landfill:	Slovenia reported 15 % biodegradable waste was landfilled in 2019 in comparison to the amount landfilled in 1995, therefore meeting the target (benefiting from a four-year derogation).

List of abbreviations

Abbreviation	Name
DRS	Deposit Return Systems
EC	European Commission
EEA	European Environment Agency
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 Centre on Waste and Materials in a Green Economy
MBT	Mechanical biological treatment
MS	Member State
MSW	Municipal Solid Waste
PAYT	Pay As You Throw
PPWD	Packaging and Packaging Waste Directive
PRO	Producer Responsibility Organisation
RR	Recycling rate
SRF	Success and risk factor
TOC	Total Organic Carbon
WEEE	Waste Electrical and Electronic Equipment
WFD	Waste Framework Directive

References

EC, 2019, Commission Implementing Decision (EU) 2019/665 of 17 April 2019 amending Decision 2005/270/EC establishing the formats relating to the database system pursuant to European Parliament and Council Directive 94/62/EC on packaging and packaging waste (notified under document C(2019) 2805) (Text with EEA relevance.) (OJ L 112, 26.4.2019, p. 26–46).

EC, 2021, Data on the landfill of biodegradable municipal waste, 2016-2018, provided to the EEA by the European Commission, status 9/3/2021.

EEA, 2020, *Bio-waste in Europe — turning challenges into opportunities*, EEA report No 4/2020, European Environment Agency (<https://www.eea.europa.eu/publications/bio-waste-in-europe>) accessed 20 June 2020.

ETC/WMGE, 2021, *Methodology for the Early warning assessment related to certain waste targets*, ETC/WMGE Working Paper, European Topic Centre on Waste and Materials in a Green Economy (<https://www.eionet.europa.eu/etcs/etc-wmge/products/etc-reports/methodology-for-the-early-warning-assessment-related-to-certain-waste-targets>) accessed 29 April 2021.

EU, 2018, Directive (EU) 2018/852 of the European Parliament and of the Council of 30 May 2018 amending Directive 94/62/EC on packaging and packaging waste (text with EEA relevance) (OJ L 150, 14.6.2018, p. 141-154).

Eurostat, 2017, Country specific notes on municipal waste data - Last update September 2017, (<https://ec.europa.eu/eurostat/documents/342366/351758/Footnotes-MW/d0579b7d-a998-47d1-b983-fa384509da1a>).

Eurostat, 2020, Country-specific notes referring to data on packaging and packaging waste - Revision December 2020, (https://ec.europa.eu/eurostat/cache/metadata/Annexes/env_waspac_esms_an1.pdf).

Eurostat, 2021a, Annual reporting of packaging and packaging waste data, 2020, Quality report for Slovenia.

Eurostat, 2021b, 'Household characteristics by degree of urbanisation (HBS_CAR_T315)' (https://ec.europa.eu/eurostat/databrowser/view/HBS_CAR_T315__custom_37301/default/table?lang=en) accessed 6 May 2021.

Eurostat, 2021c, 'Packaging waste by waste management operations (env_waspac)' (https://ec.europa.eu/eurostat/databrowser/view/ENV_WASPAC__custom_842634/default/table?lang=en) accessed 17 February 2021.

Eurostat, 2022a, 'Municipal waste by waste operations [env_wasmun]' (https://ec.europa.eu/eurostat/databrowser/view/ENV_WASMUN/default/table) accessed 14 February 2022.

Eurostat, 2022b, 'Packaging waste by waste management operations [env_waspac]' (https://ec.europa.eu/eurostat/databrowser/view/ENV_WASPAC__custom_842634/default/table?lang=en) accessed 12 March 2022.

Eurostat, 2022c, 'Recycling rates of packaging waste for monitoring compliance with policy targets, by type of packaging' [env_waspacr] (https://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=env_waspacr&lang=en) accessed 12 March 2022.

EXPRA, 2014, The effects of the proposed EU packaging waste policy on waste management practice: a feasibility study, (https://www.expra.eu/downloads/expra_20141004_f_UGGge.pdf).

Government of Slovenia, 2010, Decree on the management of biodegradable kitchen waste and garden waste (Official Gazette of the Republic of Slovenia, No. 39/10).

Government of Slovenia, 2013, Custom in returning and accepting returnable packaging (Official Gazette of the Republic of Slovenia, No. 12/13).

Government of Slovenia, 2014, Decree on the environmental tax on pollution from the landfilling of waste (Official Gazette of the Republic of Slovenia, No. 14/14).

Government of Slovenia, 2018a, Decree on the environmental tax on packaging waste pollution (Official Gazette of the Republic of Slovenia, No. 32/06, 65/06, 78/08, 19/10, 68/17 in 82/18).

Government of Slovenia, 2018b, Decree on the obligatory municipal public service of waste collection (Official Gazette of the Republic of Slovenia, No. 33/17, No. 60/18).

Government of Slovenia, 2019, Decree on the methodology for determining prices of obligatory municipal public services for environmental protection (Official Gazette of the Republic of Slovenia, No. 87/12, No. 109/12, No. 76/17, No. 78/19).

Government of Slovenia, 2020a, Decree on Waste (Official Gazette of the Republic of Slovenia, No. 37/15, No. 69/15, No. 129/20).

Government of Slovenia, 2020b, Environmental Protection Act (Official Gazette of the Republic of Slovenia, No. 39/06-official consolidated text, 49/06-ZMetD, 66/06-US decision, 33/07-ZPNačrt, 57/08-ZFO-1A, 70/08, 108/09, 108/09-ZPNačrt-A, 48/12, 57/12, 92/13, 56/15, 102/15, 30/16, 61/17-GZ, 21/18-ZNOrg, 84/18-ZIURKOE and 158/20).

Government of Slovenia, 2021a, Decree on landfill (Official Gazette of the Republic of Slovenia, No. 10/14, 54/15, 36/16, 37/18 and 13/21).

Government of Slovenia, 2021b, Decree on packaging and packaging waste (Official Gazette of the Republic of Slovenia, No. 54/21 and 208/21).

Ministry of the Environment and Spatial Planning and Slovenian Environment Agency, 2021, Questionnaire to Member States for providing information into the Early Warning analyses – Slovenia, and comments to the first draft assessment.

Republic of Slovenia, 2018, Decree on the environmental tax on packaging waste pollution (Official Gazette of the Republic of Slovenia, No. 32/06, 65/06, 78/08, 19/10, 68/17 in 82/18).

Slovenian Ministry of the Environment, 2021a, Records of processors of biodegradable waste in compost, (<https://www.gov.si/assets/organi-v-sestavi/ARSO/Odpadki/Podatki/Predelovanje-biolosko-razgradljivih-odpadkov-v-kompost.pdf>) accessed 16 June 2021.

Slovenian Ministry of the Environment, 2021b, Records of processors of biodegradable waste in digestate, (<https://www.gov.si/assets/organi-v-sestavi/ARSO/Odpadki/Podatki/Predelovanje-biolosko-razgradljivih-odpadkov-v-biopljin-in-digestat.pdf>) accessed 16 June 2021.

Statistical Office of the Republic of Slovenia, 2020, Municipal waste data quality report for Slovenia (as delivered to Eurostat).

Annex 1 Detailed scoring of success and risk factors

Assessment sheet - Recycling target for municipal waste

MS Slovenia

Date

Jun-22

SRF		Assessment result	Weight	Score
Current situation and past trends				
MSWR-1.1	Distance to target	Distance to target < 5 percentage points, or target exceeded	5	10
MSWR-1.2	Past trends in municipal solid waste recycling rate	RR > 50% and increase in last 5 years < 5 percentage points, or RR > 45%, and increase in last 5 years < 10 percentage points, or RR < 45% and increase in last 5 years > 10 percentage points	1	1
Legal instruments				
MSWR-2.1	Timely transposition of the revised WFD into national law	Transposition with delay of > 12 months, or no full transposition yet	1	0
MSWR-2.2	Clearly defined responsibilities for meeting the targets and support and enforcement mechanisms	Clearly defined responsibilities and good set of support tools but weak/no enforcement mechanisms for meeting the recycling targets OR Unclear responsibilities but clearly defined enforcement mechanisms and a good set of support tools for meeting the recycling targets OR Clearly defined responsibilities and enforcement mechanisms but no/weak support tools for meeting the recycling targets	1	1
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	PAYT scheme fully rolled out (to at least 80% of the population) OR Implemented in some regions / municipalities (50-80% covered) and firm plans for rolling out to at least 80% of the population	1	2

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 high share of the population is covered by high convenience collection services	0.84	1.68
	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	N/A (for countries in which a very high share of the population is already covered by high convenience collection services)	0.42	0
	Wood	No firm plans to improve the convenience and coverage	0.03	0
	Textiles	No firm plans to improve the convenience and coverage	0.03	0
	WEEE	No firm plans to improve the convenience and coverage	0.02	0

Extended producer responsibility (EPR) and similar schemes				
MSWR-5.1	Fee modulation in EPR schemes for packaging	No advanced fee modulation OR fee modulation meets less than two assessment criteria	1	0
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/digestate	Legally binding national standards for compost/digestate quality in place, and quality management system in place	1	2
Total score				23.72
Maximum score				32.16

Assessment sheet - Recycling target for packaging waste

MS Slovenia

Date

Jun-22

SRF		Assessment result	Weight	Score
Current situation and past trends				
P-1.1	Distance to target - Overall packaging	5 - 15 percentage points below target	5	5
	Distance to target - Paper and cardboard packaging	< 5 percentage points below target, or target exceeded	5	10
	Distance to target - Ferrous metals packaging	5 - 15 percentage points below target	5	5
	Distance to target - Aluminium packaging	< 5 percentage points below target, or target exceeded	5	10
	Distance to target - Glass packaging	< 5 percentage points below target, or target exceeded	5	10
	Distance to target - Plastics packaging	5 - 15 percentage points below target	5	5
	Distance to target - Wooden packaging	5 - 15 percentage points below target	5	5
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 < 60% and increase in last 5 years < 10 percentage points	1	0
	Past trends in aluminium packaging recycling	RR > 45% and increase in last 5 years > 5 percentage points, or RR > 40% and increase in last 5 years > 10 %, or RR > 50%	1	2
	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 < 40% and increase in last 5 years < 10 percentage points	1	0
	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 and good set of support tools but weak/no enforcement mechanisms for meeting the recycling targets OR Unclear responsibilities but clearly defined enforcement mechanisms and a good set of support tools for meeting the recycling targets OR Clearly defined responsibilities and enforcement mechanisms but no/weak support tools for meeting the recycling targets	1	1
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	Packaging taxes in place	1	2
P-3.4	Pay-as-you-throw (PAYT) system	PAYT scheme fully rolled out (to at least 80% of the population) OR Implemented in some regions / municipalities (50-80% covered) and firm plans for rolling out to at least 80% of the population	1	2
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	No fee modulation OR fee modulation meets less than two assessment criteria	1	0
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	No EPR scheme or EPR scheme covering only household, industrial OR commercial packaging OR EPR scheme but without fee modulation	1	0
	Material specific EPR assessment - Wooden packaging waste	EPR scheme covering all non-household packaging	1	2
Total packaging recycling target				20.00
Maximum score				32.00

63%

Paper and cardboard recycling target

Total score	25.00
Maximum score	30.00

83%

Ferrous metals packaging recycling target

Total score	18.00
Maximum score	30.00

60%

Aluminium packaging recycling target

	Total score	25.00
	Maximum score	32.00
		78%

Glass packaging recycling target

	Total score	25.00
	Maximum score	32.00
		78%

Plastics packaging recycling target

	Total score	17.00
	Maximum score	34.00
		50%

Wooden packaging recycling target

	Total score	21.00
	Maximum score	32.00
		66%

Assessment sheet - Target for landfilling of municipal waste

MS Slovenia

Date

Jun-22

SRF		Assessment result	Weight	Score
Current situation and past trends				
LF-1.1	Distance to target	Distance to target < 10 percentage points, or target exceeded	5	10
LF-1.2	Past trends in municipal solid waste landfill rat	Landfill rate in 2020 < 20% and decrease in last 5 years > 5 percentage points, or Landfill rate in 2020 < 25% and decrease in last 5 years > 10 percentage points or Landfill rate in 2020 < or = 10%	1	2
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	14.00
			Maximum score	14.00

100%