Country profile

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

Luxembourg

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European Environment Agency

Contents

Acknowledgements

This draft 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 Luxembourg's Administration de l'Environnement, the Environment Agency, in April 2021 to a questionnaire developed by the EEA and ETC/WMGE. The EEA and ETC/CE would like to thank Luxembourg's authorities for the information provided and for the kind review of drafts of the assessment in 2021 and April 2022.

1 Introduction

1.1 Background and purpose

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

This document is an early warning assessment for Luxembourg. 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 Luxembourg 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 Luxembourg 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 Luxembourg to achieve the overall packaging waste and specific packaging materials' recycling targets for 2025. Chapter 2.3 examines the prospects for Luxembourg 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.

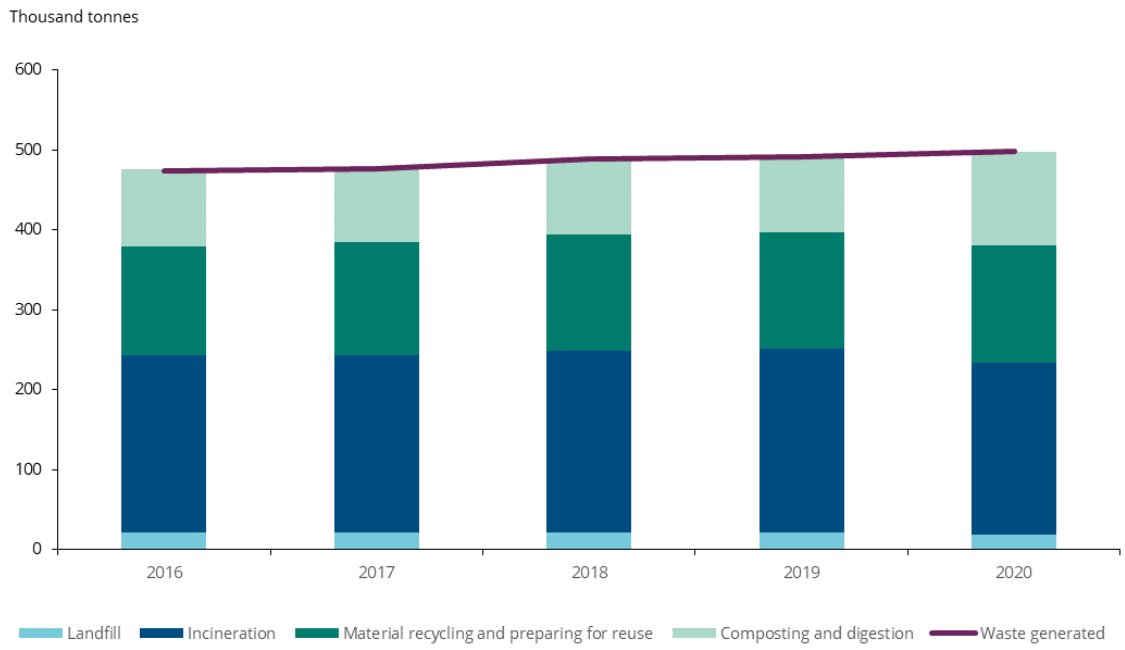
1.3 Member State profile – context parameters

Municipal waste generation and treatment

Municipal waste generation in Luxembourg has increased between 2016 and 2020. Since 2016, more waste similar to household waste from non-household sources is included in municipal waste statistics.

In 2020 Luxembourg generated 498 000 tonnes of municipal waste (Figure 1.2). This corresponds to 790 kg/cap in 2020, which is well above the (estimated) EU average of 505 kg/cap. This implies a slight decrease from 815 kg/cap in 2016. The country has a relatively high level of incineration, which has stagnated at around 47 % between 2016 and 2019, decreasing to 43.2 % in 2020. Luxembourg's landfilling rate decreased from 4.6 % in 2016 to 3.8 % in 2020. In 2020, 52.8 % of municipal waste is recycled or composted/digested, which is a slight increase compared to the period 2016-2019.

Figure 1.1 Municipal waste generation and treatment in Luxembourg between 2016 and 2019, in thousand tonnes



Note: Estimated, provisional data for 2019, Eurostat estimates for incineration and landfill for 2020.
Source: Eurostat (2022a)

Legal Framework

The amended law of 21 March 2012 on waste management determines the legal framework for waste management in Luxembourg and transposes the Waste Framework Directive (WFD) 2008/98/EC into national law (Gouvernement du Grand-Duché de Luxembourg, 2012). The revised WFD (as amended by Directive 2019/851), however, has not yet been transposed into national law.

The amended law of 21 March 2012 emphasizes the prevention of waste and the promotion of recycling and further strengthens the polluter pays principle. Moreover, the law aims to reduce the overall impact of resource use and to improve its efficiency (Gouvernement du Grand-Duché de Luxembourg, 2012).

The national waste management plan (Le plan national de gestion des déchets, PNGD) is the operational tool, specifying the objectives of waste management and the measures to achieve them. The waste prevention program provided for in article 37 of the amended law of 21 March 2012 is integrated into the text of the PNGD (PNGDR, 2018).

Waste management plan(s)

Luxembourg's waste policy is driven by waste management plans, providing the general policy direction for the management of all waste types (EEA, 2016).

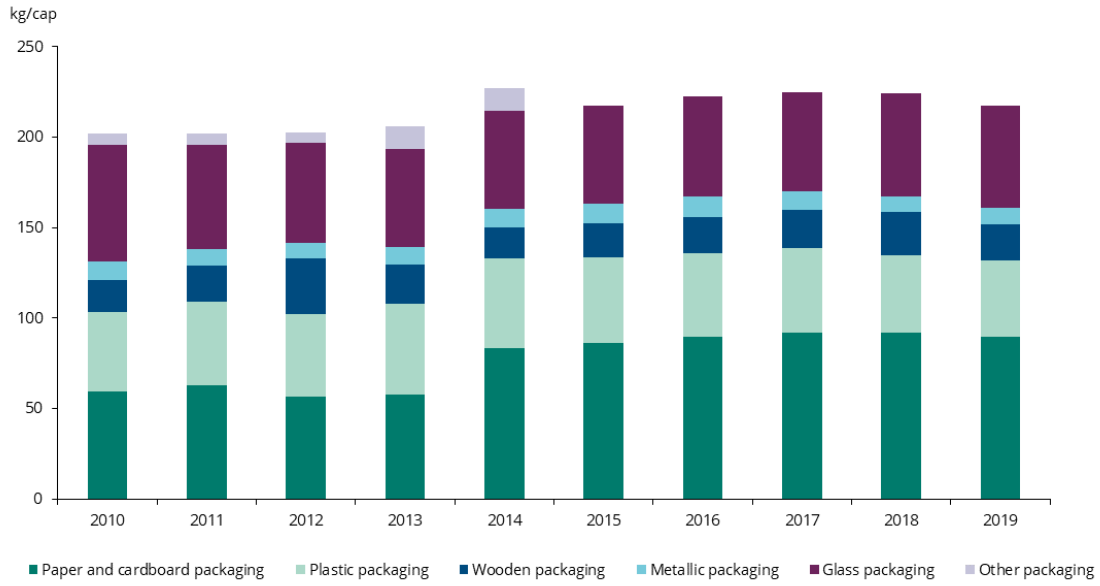
The first waste management plan was adopted by the Government Council on 15 December 2000, a second plan on 29 December 2010, which at the time was called the General Waste Management Plan (PGGD). The PGGD stated that almost 100 % of the population of Luxembourg should have access to at least one separate organic waste collection scheme, either via kerbside collection or civic amenity site (PGGD, 2010). In 2018 the national waste and resource management plan was released (PNGDR, 2018) which is the latest and still applicable. It includes measures and guidelines for the implementation of the amended Law of 21 March 2012 on waste management (Gouvernement du Grand-Duché de Luxembourg, 2012).

The PNGDR analyses the country's waste management situation together with the measures to be taken to ensure that reuse, recycling, recovery and disposal of waste is done as environmentally sound as possible. It promotes the transition to a circular economy, sustainable consumption and efforts to change public perception towards waste to be considered as a resource. It also applies the polluter pays principle and defines quantitative objectives on reuse, recycling and waste prevention, including packaging waste and food waste (PNGDR, 2018).

Packaging waste generation and treatment

In Luxembourg, 134 678 tonnes (217 kg/cap) of packaging waste were generated in 2019, which is well above the EU average of 177 kg/cap. The overall packaging waste generation increased since 2010, but remained rather stable over the past five years and even slightly decreased in 2019 (Figure 1.2). Since 2010, wooden and paper and cardboard packaging waste increased with 15 % and 51 %, per capita respectively, while plastics packaging waste decreased by 4 %. Since 2018, other packaging (incl. composite packaging) is split up into the specific materials in the waste statistics (Eurostat, 2021b). Luxembourg resubmitted data for the years 2015, 2016 and 2017, resulting in a break in the data series that should be considered when interpreting trends.

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



Note: Aluminium packaging for 2018 and 2019 are estimates.

Source: Eurostat (2022b)

Capture rates for recyclables

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

Table 1.1 Capture rates for different waste fractions in Luxemburg

	Residual waste composition (%)([b])	Residual waste composition (tonnes)([a])	Separately collected amounts (tonnes)([b])	Materials in total MSW (tonnes)	Capture rates (%)
Reference year	2018	2019	2019		
Mixed municipal waste, total		216 589			
Paper and cardboard	18 %	38 986	95 785	134 771	71 %
Metals	2%	4 332	5 385	9 716	56 %
Glass	4 %	8 664	27 731	36 395	76 %
Plastic	17%	36 820	17 495	54 315	32 %
Bio-waste	31%	67 143	99 343	166 486	60 %
Textiles	3%	6 498	5 146	11 644	44 %

([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 Administration de l'environnement, 2021

([b]) Source: As reported in the EEA-ETC/WMGE questionnaire by Administration de l'environnement, 2021

This indicates that there is room for improvement to capture higher amounts of the generated paper and cardboard waste, metals, plastics, bio-waste and textiles.

2 Success and risk factors likely to influence future performance

2.1 Target for preparing for reuse and recycling of municipal waste

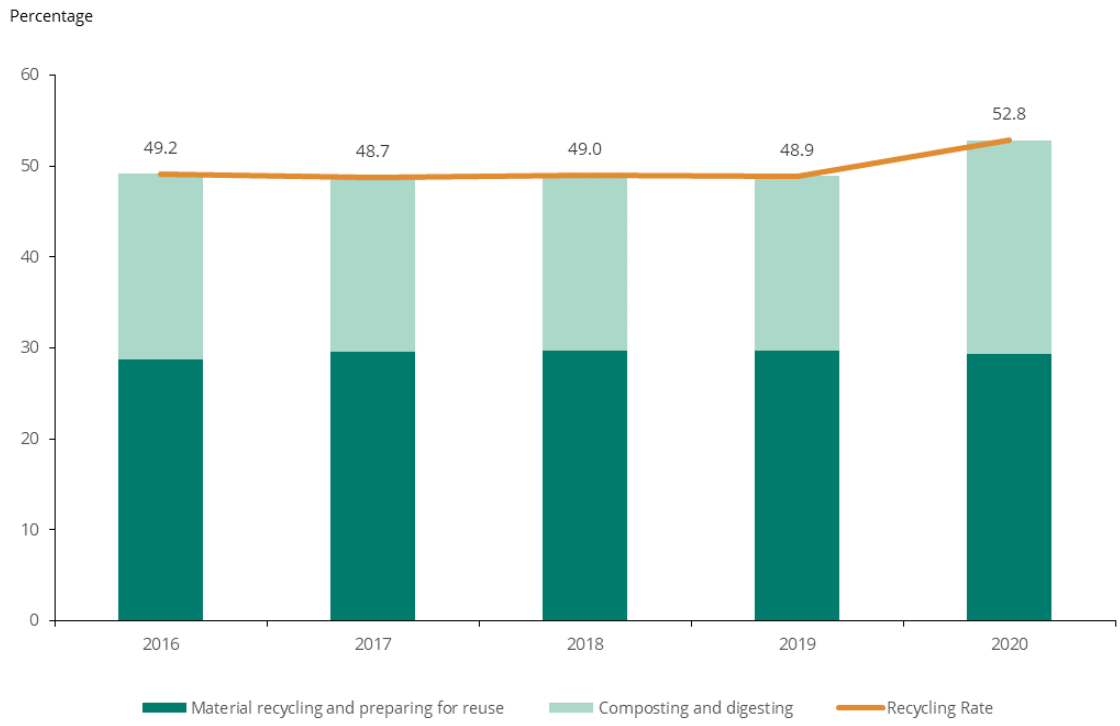
This chapter aims at assessing the prospects of Luxembourg to achieve the **55 % preparing for reuse and recycling target** for municipal waste in 2025. For a detailed description of the methodology followed, the development of success/risk factors and their impact on recycling, please consult the Methodology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

2.1.1 Current situation and past trends

SRF MSWR-1.1: Distance to target

The overall recycling rate of Luxembourg has been quite stable at 49 % during the period 2016-2019. In 2020 the recycling rate shows a slight increase to 52.8% driven by increased composting/digestion (Figure 2.1). In this analysis the recycling rate is calculated by dividing the summed amounts of recycling of materials and of composting 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 Luxembourg between 2016 and 2020, in percentage



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 Luxembourg, the recycling rate is 52.8 % in 2020 which is 2.2 percentage point below the 2025 target of 55 %.

However, the data used for this analysis are 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 Luxembourg. Luxembourg's authorities report that the impact of both the new calculation rules on municipal waste and packaging waste will be negative when considering average loss rates. The effect cannot be fully assessed yet for Luxemburg, as no specific, reliable data on the average loss rates are available. For municipal waste another negative effect will be the increased amounts of residual waste (200301) and wood that do not originate from households. This effect is, however, to a lesser extent compensated by increased amounts of recycled paper and cardboard (Administration de l'environnement, 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 Luxembourg 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 47.8 % in 2020. This assumption results in a change of the assessment for this SRF.

Summary result

Distance to target 5 - 15 percentage points	Based on currently available data Luxembourg's recycling rate lies at 52.8 %, 2.2 percentage points below 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 47.8 %, which is 7.2 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. Luxembourg has not yet quantified the influence of the new calculation rules on the recycling rate (at the time of writing of this assessment). However, a recycling rate which would be 5 percentage points below the currently reported one changes the assessment for this SRF.

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

The recycling rate over the period 2016-2019 has remained stable at 49 %. In 2020 the recycling rate increased with 3.9 percentage points to 52.8 % (Figure 2.1).

Summary result

RR > 45%, and increase in last 5 years < 10 percentage points	The recycling rate over the past five years has increased by 3.7 percentage points. For Luxembourg, the application of the new calculation rules would result in an estimated recycling rate of 47.8 %.
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.

Luxembourg has not yet fully transposed the amended Waste Framework Directive into national law, and transposition is thus delayed with more than 12 months after the deadline of 5 July 2020.

Summary result

Transposition with delay of > 12 months, or no full transposition yet	Luxembourg has not yet transposed the amended Waste Framework Directive into national law.
Robustness of the underlying information	Credible information received from 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 target and the accountability for failing the targets are, the higher the chance that the targets will be met.

In Luxembourg, the following authorities and stakeholders have certain responsibilities which influence the recycling rate of municipal solid waste and packaging waste:

- The Ministry of the Environment is responsible for all waste related policies, including strategies, action plans and national legislation;
- The responsible entity for implementing waste policies is the national Environment Agency;
- The municipalities are responsible for waste collection;
- Producer Responsibility Organizations (PROs) manage specific waste streams on behalf of the producers. For packaging waste, the responsible PRO is Valorlux;
- Citizens.

The contracts between producers, PROs and waste management operators define minimum service requirements. There is a financial compensation paid by the PROs to the municipalities for managing specific waste streams containing packaging. If the PRO does not comply with their collection and recycling targets, they have to pay a fine as defined in national legislation (Administration de l'environnement, 2021).

Moreover, there are a number of support tools and mechanisms in place to improve the efficiency and performance of the responsible entities influencing the recycling rate of municipal solid waste and packaging waste:

- Trainings by public authorities (for packaging waste producing actors);
- Best practice exchange between recycling centres;
- Obligations of the PRO for packaging for sensibilization of the public;
- Annual reporting by PROs and producers containing the targets to be achieved;
- Consultation of public and stakeholders in policy development;

- Regular realisation of statistics, studies and analyses with respect to packaging waste by Luxembourg's Environment Agency.

In summary, responsibilities are well defined, and support mechanisms are in place. However, while there are direct consequences for PROs in case specific targets are not met (e.g. for packaging waste), enforcement mechanisms towards municipalities with respect to meeting the targets for the recycling and preparing for reuse of municipal waste seem to be weak or unclear (Administration de l'environnement, 2021).

Summary result

Clearly defined responsibilities and good set of support tools but weak/no enforcement mechanisms for meeting the recycling targets	Responsibilities are defined and support mechanisms are in place. However, information about enforcement mechanisms for meeting the target for municipal waste is lacking.
Robustness of the underlying information	Credible information received from Luxembourg's 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.

In Luxembourg, there is no landfill tax. However, the country's only landfill in operation currently applies a relatively high gate fee of 200 EUR/t for non-hazardous municipal waste (147 EUR/t when rescaled based on the purchasing power parity). In addition, there is a ban on untreated MSW and organic waste with a Total Organic Carbon content (TOC) above 5 % (Administration de l'environnement, 2021).

Summary result

Ban in place for landfilling residual or biodegradable waste	In Luxembourg, there is no landfill tax, but very high gate fees, and a ban on untreated MSW and organic waste (TOC > 5%).
Robustness of the underlying information	Credible information received from Luxembourg's 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.

In Luxembourg, there is no tax on municipal waste incineration (Administration de l'environnement, 2021).

Summary result

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

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

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

In Luxembourg, municipalities are obliged to set waste collection fees based on the basis of the actual quantities of household and similar waste produced by individual households, either by weight or volume (PNGDR, 2018). A PAYT system is in place by weight for residual household waste and bulky waste, but the system is not rolled out completely (Administration de l'environnement, 2021). According to the Luxembourg authorities, approximately 60 % of the population is covered by a PAYT system which is mix between volume based, weight based or frequency of collection (Administration de l'Environnement, 2022).

Summary result

PAYT scheme implemented in some regions / municipalities (50-80% of population covered)	In Luxembourg, there is a PAYT system in place covering approximately 60 % of the population.
Robustness of the underlying information	Credible information received from Luxembourg's authorities through the EEA-ETC/WMGE questionnaire. No information was provided about the population covered by a PAYT system.

2.1.4 Separate collection system

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

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

For Luxembourg, according to the most recent data, the percentage of households living in cities is 40 %, in towns and suburbs 41 % and in rural areas 19 % (Eurostat, 2021a).

In Luxembourg, throughout the country residual waste is collected separately via door-to-door collection and to some extent via civic amenity sites (bulky waste). For paper and cardboard in 2017, 100 % of the population was connected to separate door-to-door collection and 80 % of the population for glass (STATEC, 2021). For both fractions there are also bring points. For bio-waste, in 2017, 74 % of the population was connected to separate door-to-door collection (STATEC, 2021). The separate door-to-door collection system for paper and cardboard targets both packaging and non-packaging. A regular analysis determines the amount of packaging waste within this fraction. The

separate door-to-door collection system for glass is almost only used for glass packaging. Citizens are informed that only hollow glass should enter this collection system. In civic amenity sites there is separate collection for hollow glass as well as other glass (Administration de l'environnement, 2021).

There is a door-to-door separate collection system in place for plastics packaging, metal packaging and beverage cartons (composite packaging), which falls under the responsibility of the PRO Valorlux. Since 2021, the collection system ("blue-bag collection") was extended to cover all types of plastics packaging, such as plastic pots, plastic trays, plastic cups as well as plastic bags and films (Administration de l'Environnement, 2022). A pilot project showed, that 35 % more packaging has been collected via the blue bag (however, a possible effect of the Covid-19 pandemic is not clear). At the same time, the fraction that could not be sorted and is sent to thermal valorization was reduced from 22 % to 8 % (Administration de l'environnement, 2021). In rural areas bring points are mainly used. The following plastic sub-categories (including non-packaging) are collected separately at civic amenity sites: PE-foils, PET-bottles transparent, PET-bottles colored, PE-Packaging, PP-/PS-pots, PP-/PS-PET Blister, polystyrene (Administration de l'environnement, 2021).

Municipalities are obliged by law to ensure availability and access of public infrastructures for the separate collection of paper, metal, glass, plastic, bio-waste and packaging waste. Thus, each citizen must have access to a civic amenity site. There is also a separate collection of problematic waste, including hazardous waste. Luxembourg has 27 civic amenity sites distributed over the whole country (Administration de l'environnement, 2021).

Textiles are collected via separate door-to-door- collection, bring points and civic amenity sites throughout the country (Administration de l'environnement, 2021). In 2017, 81 % of the population was covered by separate bulk collection of textiles (STATEC, 2021). This is reflected in a relatively high capture rate of 44 %. Wood waste and WEEE are collected via separate door-to-door collection and via civic amenity sites (Administration de l'environnement, 2021).

Luxembourg's authorities report that there is a specific project by SDK aiming to improve the separate collection of waste in apartment buildings (SuperDrecksKëscht® (SDK), 2021). Further, there is a pilot project for separate collection of waste in an apartment complex including businesses (Zap your waste!, 2021).

Table 2.1 gives an overview of the collection system in Luxembourg. The metals, plastics, and glass door-to-door collection and bring point collection systems used in Luxembourg are mostly limited to packaging waste, whereas non-packaging materials are received at civic amenity sites.

Table 2.1 Characterisation of the collection system in Luxembourg

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

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

Source: Administration de l'environnement (2021)

Summary result

Paper and cardboard	A high share of the population is covered by high convenience collection services	Door-to-door separate collection or high convenience collection points are the dominant systems in cities, towns and suburbs, and rural areas for paper and cardboard packaging waste and reclaimed paper.
Metals	A high share of the population is covered by high convenience collection services	Door-to-door separate collection is the dominant system in cities, towns and suburbs, and rural areas. The 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 separate collection or high convenience collection points are the dominant system in cities, towns and suburbs, and rural areas. Non-packaging plastics are mainly collected at civic amenity sites and via bring points.

Glass	A high share of the population is covered by high convenience collection services	Door-to-door separate collection or high convenience collection points are the dominant systems in cities, towns and suburbs, and rural areas for glass packaging waste. The non-packaging glass is collected at civic amenity sites and via bring points.
Bio-waste	A high share of the population is covered by high convenience collection services	Door-to-door separate collection is the dominant systems in cities, towns and suburbs, and rural areas for bio-waste. In addition, bio-waste is collected at civic amenity sites. For garden waste there are also bring points.
Wood	A medium share of the population is covered by high convenience collection services	Wood is collected via separate door-to-door collection and via civic amenity sites in cities, towns and suburbs, and rural areas.
Textiles	A high share of the population is covered by high convenience collection services	Textiles are collected via separate door-to-door-collection, bring points and civic amenity sites in cities, towns and suburbs, and rural areas.
WEEE	High to medium convenience collection services dominate	WEEE is collected via separate door-to-door collection and via civic amenity sites in cities, towns and suburbs, and rural areas.
Robustness of the underlying information		Credible information received from Luxembourg's 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

While for paper and cardboard, metals, plastics, glass, bio-waste, textiles and WEEE a large share of the population is already covered by high convenience collection points, there is still room for improvement for wood.

Luxembourg's authorities report that for wood and textiles there are clearly expressed obligations in new waste law proposals. The law is expected to be approved within the next six months. For WEEE there are firm plans to introduce collection points in supermarkets with a surface larger than 1500 m^2 (Administration de l'Environnement, 2022).

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	There are plans to improve the collection service but unclear plan for implementation	Clearly expressed obligation in new waste law proposal. The law is expected to be approved within the next 6 months.
Textiles	N/A (for countries in which a high share of the population is already covered by high convenience collection services)	Clearly expressed obligation in new waste law proposal. The law is expected to be approved within the next 6 months.
WEEE	Firm plans to improve the separate collection system, with clear responsible entities and defined targets and timeline	There are firm plans to introduce collection points in supermarkets with a surface larger than 1500 m^2.
Robustness of the underlying information		Credible information received from Luxembourg's authorities through the EEA-ETC/WMGE questionnaire.

2.1.5 Extended producer responsibility (EPR) and similar schemes

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

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

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

In Luxembourg there is a basic system of fee modulation for packaging materials in place. The fees for non-recoverable materials are higher than for recoverables. Also, fees for PET bottles are lower than for HDPE bottles. There are regular compliance checks by the PRO to ensure that producers report correctly (Administration de l'environnement, 2021).

Summary result

No advanced fee modulation	In Luxembourg there is a basic, but no advanced system of fee modulation for packaging materials in place. There are regular compliance checks.
Robustness of the underlying information	Credible information received from Luxembourg's 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.

The overall residual municipal waste in Luxembourg amounts to 216 589 tonnes in 2019 (Administration de l'environnement, 2021).

The reported share of bio-waste in residual waste is 31 %, meaning that a total of 67 143 tonnes bio-waste is present in residual waste (Table 1.1).

Adding the volumes reported as separately collected bio-waste in 2019 of 99 343 tonnes, results in an overall amount of generated bio-waste of 166 486 tonnes, excluding home-composted amounts. This means that about 60 % of bio-waste was captured in 2019 (own calculations, Table 1.1).

Luxembourg's authorities report that the overall capacity for municipal bio-waste treatment amounts to 264 722 tonnes per year. There are seven composting plants with an annual capacity of 76 500 tonnes and 27 anaerobic digestion plants with a capacity of 188 222 tonnes (Administration de l'environnement, 2021). This means that there is sufficient capacity in place to treat the current amount of bio-waste generated.

Summary result

Enough bio-waste treatment capacity for 80% of generated municipal bio-waste	The bio-waste treatment capacity in Luxembourg is above 80 % of total generated municipal bio-waste.
Robustness of the underlying information	Credible information received from Luxembourg's 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.

Luxembourg is reported to have mature national standards for compost quality (EEA, 2020). In Luxembourg, the compost produced in the largest compost plants is quality managed under the German quality management system RAL-GZ 251 (PNGDR, 2018).

Summary result

Legally binding national standards for compost/digestate quality in place, and quality management system in place	Luxembourg has mature national standards for compost quality, and the compost is quality managed under RAL-GZ 251.
Robustness of the underlying information	This information is robust. It was provided by Luxembourg's authorities for the development of the 2020 EEA report Bio-waste in Europe – turning challenges into opportunities.

2.2 Target for the recycling of packaging waste

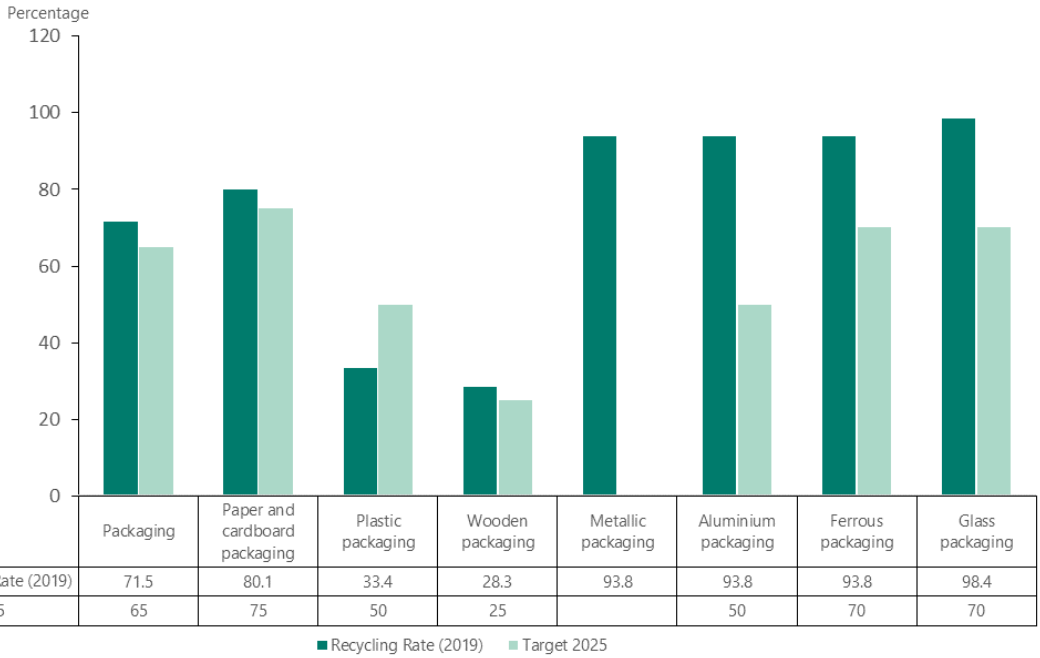
This chapter aims at assessing the prospects of the Luxembourg to achieve the **65 % recycling target for packaging waste** in 2025 as well as the **material specific packaging waste recycling targets** (50 % of plastic; 25 % of wood; 70 % of ferrous metals; 50 % of aluminium; 70 % of glass; 75 % of 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 Luxembourg 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 Luxembourg for 2019 is illustrated in Figure 2.2.

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



	Packaging	Paper and cardboard packaging	Plastic packaging	Wooden packaging	Metallic packaging	Aluminium packaging	Ferrous packaging	Glass packaging
Recycling Rate (2019)	71.5	80.1	33.4	28.3	93.8	93.8	93.8	98.4
Target 2025	65	75	50	25		50	70	70

Note: Estimates for aluminium packaging in 2019

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

Data on the generation of packaging waste data are reported based on waste analyses, excluding aluminium which is reported based on data from the producer responsibility organisation operating in Luxembourg and covering all producers (Eurostat, 2021b). There are some known data accuracy challenges, for instance that the assigned European Waste List (EWL) codes differ at the entrance as compared to the exit of a sorting facility or might be wrongly assigned. Moreover, the final treatment is often unknown when waste is exported to waste sorting facilities abroad (Eurostat, 2021b).

For Luxembourg, the reported recycling rates of packaging waste for 2019 are already higher than the 2025 targets, with a recycling rate of 71.5 % for overall packaging, 98.4 % for glass packaging, 80.1 % for paper and cardboard packaging, 93.8 % for steel packaging and aluminium packaging and 28.3 % for wood packaging.

The only exception is a comparatively low plastics recycling rate of 33.4 %, being 17 percentage points below the 2025 target of 50 %. This is due to the fact that the EPR schemes currently do not cover all plastic product types and that the EPR system for non-household plastics packaging waste reportedly still needs to be optimized. However, Luxembourg plans to expand the door-to-door separate collection to more plastics packaging types (Administration de l'environnement, 2021).

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

The actual impact of the application of the new calculation rules to the recycling rate has not been quantified yet in Luxembourg. Luxembourg's authorities report that the impact of the new calculation rules on packaging waste will be negative when considering average loss rates. The effect cannot yet be fully assessed as no reliable data on the average loss rates for Luxembourg are available (Administration de l'environnement, 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 80.1 % to 72.1 %
- Glass packaging: decrease by 5 %, from 98.4 % to 93.5 %
- Metal packaging: decrease by 14 %, from 93.8 % to 80.7 %
- Plastic packaging: decrease by 21 %[1], from 33.4 % to 26.4 %
- Wooden packaging: decrease by 11 % from 28.3 % to 25.2 %
- Total packaging: Calculated based on the amounts of each packaging material generated and recycled in 2019, the recycling rate would drop from 71.5 % to 64.7 %.

Applying these estimates, the distance to the recycling targets for total packaging and paper and cardboard packaging are likely to be slightly below the 2025 targets.

[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 %).

Summary

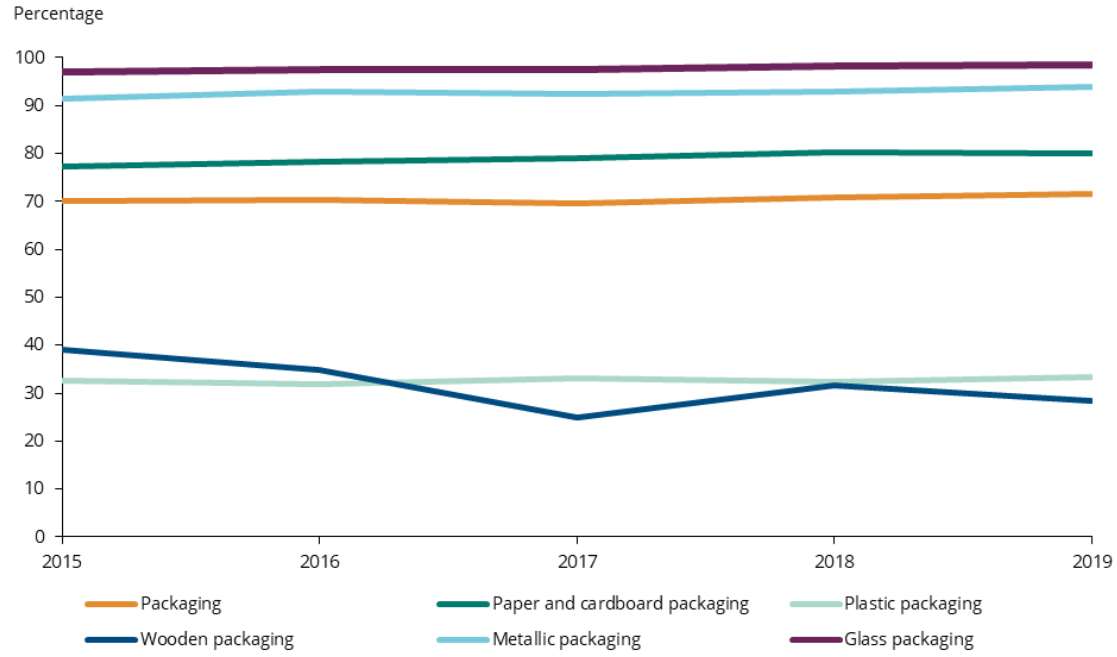
Total packaging	< 5 percentage points below target	Luxembourg reports a recycling rate of 71.5 %. If the new calculation rules would be applied (taking into account losses in the recycling plants for the different materials), the estimated recycling rate would drop to 64.7 %, 0.3 percentage points below the target.
Paper and cardboard packaging	< 5 percentage points below target	Luxembourg reports a paper and cardboard packaging recycling rate of 80.1 %. However, if the new calculation rules were applied (taking into account losses in the recycling plants), the estimated recycling rate would drop to 72.1 %, 2.9 percentage points below the 2025 target.
Ferrous metals packaging	Target exceeded	Luxembourg reports a recycling rate for of 93.8 %. If the new calculation rules would be applied (taking into account losses in the recycling plants for the different materials), the estimated recycling rate would drop to 80.7 %, 10.7 percentage points above the target.
Aluminium packaging	Target exceeded	Luxembourg reports a recycling rate for of 93.8 %. If the new calculation rules would be applied (taking into account losses in the recycling plants for the different materials), the estimated recycling rate would drop to 80.7 %, 30.7 percentage points above the target.
Glass packaging	Target exceeded	Luxembourg reports a recycling rate of 98.4 %. If the new calculation rules would be applied (taking into account losses in the recycling plants for the different materials), the estimated recycling rate would drop to 93.5 %, 23.5 percentage points above the target.
Plastics packaging	> 15 percentage points below target	Luxembourg reports a recycling rate of 33.4 %. If the new calculation rules would be applied (taking into account losses in the recycling plants for the different materials), the estimated recycling rate would drop to 26.4 %, 23.6 percentage points below the target.
Wooden packaging	Target exceeded	Luxembourg reports a recycling rate of 28.3 %. If the new calculation rules would be applied (taking into account losses in the recycling plants for the different materials), the estimated recycling rate would drop to 25.2 %, 0.2 percentage points above the target.
Robustness of the underlying information		The assessment is limited by the fact that the recycling rates for 2019 reported by Luxembourg 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. Reported data on metals packaging include metals packaging incinerated and extracted from incinerator bottom ash, assuming that 100 % of incinerated metals are recycled, and Luxembourg aims to improve the calculation method. This is likely to reduce the recycling rate for 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 Luxembourg are illustrated in Figure 2.3.

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



Note: Luxembourg reported separate data for aluminium packaging for the first time in 2017, and data for aluminium packaging for 2018 and 2019 are estimates.

Source: Eurostat (2022c)

Luxembourg's recycling rate for total packaging increased with 1.5 percentage points since 2015 from 67.9 % while the rates for most packaging waste fractions remained stable. Only the recycling rate for wooden packaging decreased significantly the past five years, bus still remains above the target. Only since 2018 there are separate figures for steel and aluminium packaging. Data on separately collected drink cans reported under the EPR scheme are used for this purpose (Administration de l'environnement, 2021).

Summary result

Total packaging	RR > 60% and increase in last 5 years < 5 percentage points	The recycling rate increased by 1.5 percentage points over the past five years and is estimated at 64.7 % 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 2.9 percentage points over the past five years and is estimated at 72.1 % if the new calculation rules would be applied (taking into account losses in the recycling plants).
Ferrous metals packaging	RR > 70%	The recycling rate increased by 2.3 percentage points over the past five years and is estimated at 80.7 % if the new calculation rules would be applied (taking into account losses in the recycling plants).

Aluminium packaging	RR > 50%	Luxembourg only reports a separate recycling rate for aluminium packaging since 2017. Therefore, the recycling rate for metallic packaging is used for calculating the five year trend. The recycling rate for metallic packaging increased by 2.3 percentage points over the past five years and is estimated at 80.7 % if the new calculation rules would be applied (taking into account losses in the recycling plants).
Glass packaging	RR > 70%	The recycling rate increased by 1.4 percentage points over the past five years and is estimated at 93.5 % if the new calculation rules would be applied (taking into account losses in the recycling plants).
Plastics packaging	RR < 40% and increase in last 5 years < 10 percentage points	The recycling rate increased by only 0.7 percentage points over the past five years and is estimated at 26.4 % if the new calculation rules would be applied (taking into account losses in the recycling plants).
Wooden packaging	RR > 25%	The recycling rate decreased by 10.7 percentage points over the past five years and is estimated at 25.2 % 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 Luxembourg to Eurostat do not yet reflect the new calculation rules, and the impact of the new calculation rules has therefore been estimated based on literature. The trends over time seem to be robust as there are no breaks in time series indicated.

2.2.2 Legal instruments

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

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

Luxembourg has not yet transposed the revised Packaging and Packaging Waste Directive into national law, 12 months after the deadline of 5 July 2020.

Summary result

Transposition with delay of > 12 months, or no full transposition yet	Luxembourg has not yet transposed the revised Packaging and Packaging Waste Directive into national law.
Robustness of the underlying information	Credible information received from 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.

Responsibilities for meeting the targets, and support and enforcement mechanisms with respect to packaging waste are described in detail in section 2.1.2 under SRF MSWR-2.2.

Summary result

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

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, Luxembourg has no landfill tax in place (Administration de l'environnement, 2021).

Summary result

Ban in place for landfilling residual or biodegradable waste	In Luxembourg, there is no landfill tax, but very high gate fees, and a ban on untreated MSW and organic waste (TOC > 5%).
Robustness of the underlying information	Credible information received from Luxembourg's 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, Luxembourg has no tax on municipal waste incineration in place (Administration de l'environnement, 2021).

Summary result

No incineration taxes	In Luxembourg, there is no tax on municipal waste incineration.
Robustness of the underlying information	Credible information received from Luxembourg's 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, Luxembourg has currently no packaging tax in place, but will take over the EU plastic tax on non-recycled plastic for 2021.

Summary result

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

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

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

In Luxembourg, municipalities are obliged to set waste collection fees based on the basis of the actual quantities of household and similar waste produced by individual households, either by weight or volume (PNGDR, 2018). A PAYT system is in place by weight for residual household waste and bulky waste, but the system is not rolled out completely (Administration de l'environnement, 2021). According to the Luxembourg authorities, approximately 60 % of the population is covered by a PAYT system which is mix between volume based, weight based or frequency of collection (Administration de l'Environnement, 2022).

Summary result

PAYT scheme implemented in some regions / municipalities (50-80% of population covered)	In Luxembourg, there is a PAYT system in place, covering approximately 60 % of the population.
Robustness of the underlying information	Credible information received from Luxembourg's authorities through the EEA-ETC/WMGE questionnaire. No information was provided about the population covered by a PAYT system

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.

In Luxembourg there are only voluntary deposit-return systems for some specific types of reusable packaging in place, namely for some specific plastic bottles, plastic crates and some specific glass bottles, namely drinking bottles for juice, water, and beer bottles mainly sold in crates (Administration de l'environnement, 2021).

Summary result

Aluminium drink cans	No DRS for drink cans	
Plastic drink bottles	Voluntary DRS for some drink bottles	A voluntary DRS covers some specific plastic bottles.
Plastic crates	Voluntary DRS covering nearly all	A voluntary DRS covers nearly all plastic crates.
Glass drink bottles	Voluntary DRS for some drink bottles	The voluntary DRS includes some drinking bottles for juice, water, and beer bottles mainly sold in crates.
Wooden packaging	No DRS for wooden packaging	
Robustness of the underlying information		Credible information received from Luxembourg's authorities through the EEA-ETC/WMGE questionnaire.

2.2.4 Separate collection system

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

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

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

The coverage and convenience level for the collection of packaging waste is medium to high, including both household and non-household sources. With respect to separate collection for non-households, the following systems are in place to enforce this (Administration de l'environnement, 2021):

- By law, private or public establishments as well as residential buildings must be equipped with the necessary infrastructure allowing for separate collection of the different fractions and qualities of waste at their disposal;
- Incentive: The Label 'SuperDrecksKëscht fir Betriber' is a recognised quality label granted to businesses that have adopted an environmentally friendly waste management plan, promoting also separate collection of waste for companies, and businesses can receive consulting on its implementation free of charge (Quality label SuperDrecksKëscht fir Betriber, 2021);
- Penalties by law (prison penalty eight days to six months, fine from EUR 251 up to EUR 100 000);
- Controls can be executed by competent public authorities.

Summary result

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

Glass packaging	**1. Packaging waste from households** A high share of the population is covered by high convenience collection services	
	2. Packaging waste from non-household sources Separation at source is mandatory for non-household glass packaging waste	
Plastics packaging	**1. Packaging waste from households** A high share of the population is covered by high convenience collection services	
	2. Packaging waste from non-household sources Separation at source is mandatory for non-household plastic packaging waste	
Wooden packaging	**Packaging waste from non-household sources** Separation at source is mandatory for non-household wooden packaging waste	
Robustness of the underlying information		Credible information received from Luxembourg's 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 different packaging waste fractions

Concrete plans are needed to improve the convenience and coverage of separate collection. This SRF is only relevant for MS and materials that do not score 'green' in SRF P-4.1. The assessment is done on a material basis and summing up the scores of the different materials according to their average share in packaging waste[2]. Again, the material specific assessment considers packaging waste from both household and non-household sources.

Luxembourg already has collection systems with high convenience and coverage for different packaging waste fractions (cf SRF P-4.1). For plastics packaging, door-to-door separate collection has recently been extended to more packaging types, such as foils and blisters (Administration de l'environnement, 2021).

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)	

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

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)	
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)	
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)	
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 Luxembourg's 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

With respect to packaging, there is one EPR scheme in place for packaging waste originating from both households and non-households, including packaging made from paper and cardboard, ferrous metals, aluminium, glass, plastics, wood and composite packaging (Administration de l'environnement, 2021).

However, the implementation for packaging from non-household sources is still to be optimized according to Luxembourg's authorities (Administration de l'environnement, 2021).

Concerning household and household-similar packaging waste, Valorlux is the approved PRO for taking over packaging producers' responsibility. By law, producers can also fulfil their obligations on an individual basis. Nevertheless, in Luxembourg all producers are represented by Valorlux.

EPR also applies to industrial packaging, but there is currently no PRO in Luxembourg, except for agricultural chemicals packaging, Valorlux being the PRO in charge.

There is regular communication between Luxembourg's Environment Agency and Valorlux to identify free-riders. The Environment Agency contacts free-riders to make them comply with EPR regulations and fulfil their EPR obligations. If no answer is received the control unit takes over the case (Administration de l'environnement, 2021).

Summary result

All main packaging fractions([a]) are covered by EPR schemes, covering household and non-household packaging	In Luxembourg all main packaging fractions are covered by EPR schemes, covering household and non-household packaging.
Robustness of the underlying information	Credible information received from Luxembourg's 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

In Luxembourg there is a basic system of fee modulation for packaging materials in place. The fees for non-recoverable materials are higher than for recoverables. Also fees for PET bottles are lower than for HDPE bottles. There are regular compliance checks by the PRO to ensure that producers report correctly (Administration de l'environnement, 2021).

Summary result

No advanced fee modulation	In Luxembourg there is a basic, but not advanced system of fee modulation in EPR schemes for packaging in place. There are regular compliance checks.
Robustness of the underlying information	Credible information received from Luxembourg's 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.

In Luxembourg, the EPR scheme Valorlux covers all major material fractions from both household and non-household sources. A basic system of fee modulation for packaging materials is in place (Administration de l'environnement, 2021).

Summary result

SRF P-5.3.1 EPR scheme for Paper and cardboard packaging waste	EPR scheme covering household and non-household packaging, with a fee modulation meeting at least two assessment criteria	EPR scheme covers household and non-household packaging with basic fee modulation. The fees for non-recoverable materials are higher than for recoverables. There are regular compliance checks.
SRF P-5.3.2 EPR scheme for Ferrous metals packaging waste	EPR scheme covering household and non-household packaging, with a fee modulation meeting at least two assessment criteria	
SRF P-5.3.3 EPR scheme for Aluminium packaging waste	EPR scheme covering household and non-household packaging, with a fee modulation meeting at least two assessment criteria	
SRF P-5.3.4 EPR scheme for Glass packaging waste	EPR scheme covering household and non-household packaging, with a fee modulation meeting at least two assessment criteria	
SRF P-5.3.5 EPR scheme for Plastic packaging waste	EPR scheme covering household and non-household packaging, with a fee modulation meeting at least two assessment criteria	
SRF P-5.3.6 EPR scheme for Wooden packaging waste	EPR scheme covering all non-household packaging	EPR scheme covers all non-household packaging.
Robustness of the underlying information		Credible information received from Luxembourg's 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 Luxembourg was 3.8 % in 2020 (calculated based on (Eurostat, 2022a)).

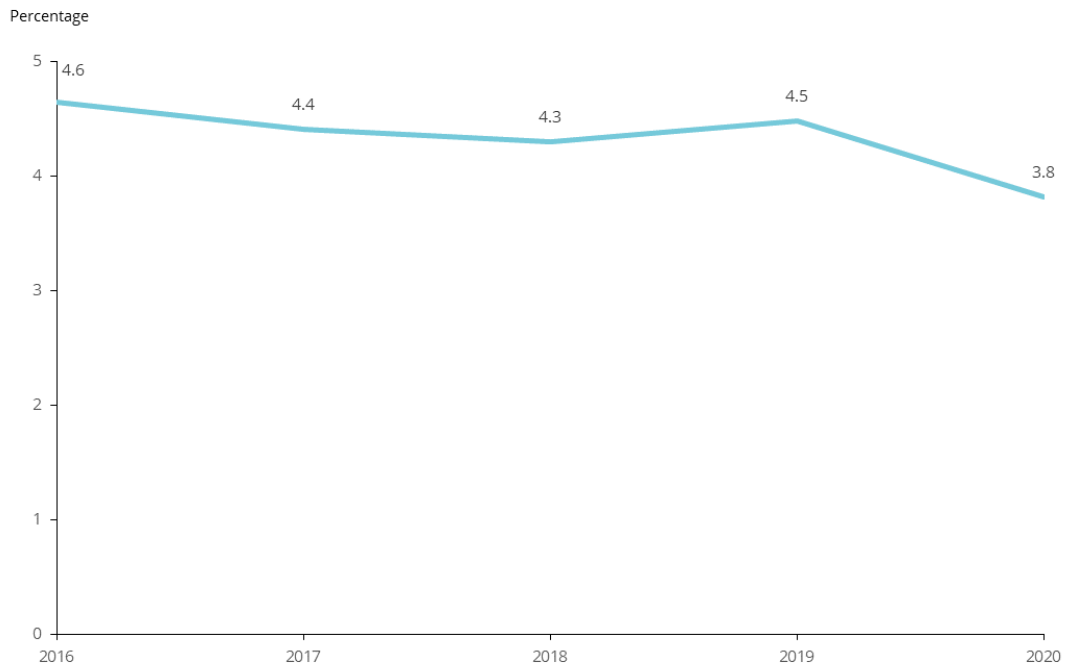
Summary result

Target exceeded	The overall landfilling rate of Luxembourg was 3.8 % in 2022.
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 Luxembourg decreased from 4.6 % in 2016 to 3.8 % in 2020 (Figure 2.4).

Figure 2.4 Landfilling in Luxembourg between 2015 and 2019, in percentage



Source: Eurostat (2022a)

Summary result

Landfill rate in 2020 <10%	The landfilling rate in 2020 was 3.8 %.
Robustness of the underlying information	The data is derived from Eurostat and is considered to be rather robust. However, there is a break in the time series data between 2015 and 2016.

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.

Luxembourg generated about 146 647 tonnes of biodegradable municipal waste in the reference year. 5 % of this generated amount was still landfilled in 2016.

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	Luxembourg has reported 5 % biodegradable waste landfilled for 2016 of the total amount (by weight) of biodegradable municipal waste produced in 1995, and therefore met the target already.
Robustness of the underlying information	Based on officially reported data which is well in line with otherwise reported statistical data on landfilling of municipal waste.

3 Conclusion

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

56 % **of maximum score**	Based on the provided information and the analysis done, it is concluded that Luxembourg is **not at risk for not meeting the MSW recycling target in 2025**.
Current situation and past trends:	Luxembourg's recycling rate lies at 52.8 %, 2.2 percentage points below the 2025 target. Considering however the impact of the new calculation rules, in line with what other MS report, we assume a reduction with 5 percentage points for this assessment, resulting in an estimated recycling rate of 47.8 %, which is 7.2 percentage points below target. Since 2016, the recycling rate has increased by 3.7 percentage points.
Legal instruments:	The amended WFD has not been transposed into national law yet. Responsibilities are defined and support mechanisms are in place, however, information about enforcement mechanisms beyond packaging waste is lacking.
Economic instruments:	Luxembourg does not have an incineration tax. There is no landfill tax, but very high gate fees, and a ban on untreated MSW and organic waste (TOC > 5 %). There is a PAYT system in place, covering about 60 % of the population.

Separate collection systems:	A high share of the population is covered by high convenience collection services for paper and cardboard, plastics, metals, glass, bio-waste, textiles and WEEE. For wood, a medium share of the population is covered by high convenience collection services. For metals there are no firm plans to improve the convenience and coverage of collections. For WEEE there are firm plans to improve the separate collection system, with clear responsible entities and defined targets and timeline. For wood there are plans to improve the collection service, but an unclear plan for implementation.
Extended producer responsibility:	There is a basic system of fee modulation for packaging materials in place.
Bio-waste treatment capacity and quality management:	Bio-waste treatment capacity is considered sufficient, namely above 80 % of total generated municipal bio-waste. Luxembourg has mature national standards for compost quality, compost is quality assured.

3.2 Prospects for meeting the recycling target for packaging waste

69 % **of maximum score**	Based on the provided information and the analysis done, it is concluded that Luxembourg is **not at risk for not meeting the 65 % recycling target for packaging waste in 2025**	
73 % of maximum score	Paper and cardboard	Not at Risk
77 % of maximum score	Ferrous metals packaging	Not at Risk
72 % of maximum score	Aluminium packaging	Not at Risk
72 % of maximum score	Glass packaging	Not at Risk
29 % of maximum score	Plastics packaging	At Risk
72 % of maximum score	Wooden packaging	Not at Risk
Current situation and past trends:	Luxembourg reports a total packaging recycling rate of 71.5 %. If the new calculation rules would be applied (taking into account losses in the recycling plants for the different materials), the estimated recycling rate would drop to 64.7 %, 0.3 percentage points below the target. The total packaging waste recycling rate increased by 1.5 percentage points over the past five years. The only waste stream more than 15 percentage points below the target is plastic packaging (distance to target at least 17 percentage points).	

Legal instruments:	The amended Packaging and Packaging Waste Directive has not yet been transposed into national law. Responsibilities are defined and support and enforcement mechanisms are in place for the PRO if the targets are not met.
Economic instruments:	Luxembourg does not apply an incineration tax, nor packaging taxes. There is no landfill tax, but very high gate fees, and a ban on untreated MSW and organic waste (TOC > 5 %). There is a PAYT system in place, covering about 60 % of the population. No mandatory DRS in place, only voluntary schemes for some specific types of reusable packaging (some specific plastic and glass bottles and for plastic crates).
Separate collection systems:	A high share of the population is covered by high convenience collection services for paper and cardboard, metals, aluminium, glass, wooden and plastics packaging. Separation at source is mandatory for commercial and industrial packaging waste.
Extended producer responsibility:	All main packaging fractions are covered by EPR schemes, covering household and non-household packaging. Basic fee modulation is implemented.

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 Luxembourg 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 landfilling rate in 2019 was 3.8 %. Over the past five years, the overall landfilling rate of Luxembourg has decreased.
Diversion of biodegradable municipal waste from landfill:	Luxembourg has reported 5 % biodegradable waste landfilled for 2016 of the total amount (by weight) of biodegradable municipal waste produced in 1995, and therefore met the target.

List of abbreviations

Abbreviation	Name
DRS	Deposit Return System
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 Center / Waste and Materials in a Green Economy
EWL	European Waste List
HDPE	High-density polyethylene
MBT	Mechanical biological treatment
MS	Member state
MSW	Municipal solid waste
PAYT	Pay-as-you-throw
PE	Polyethylene
PET	Polyethylene terephthalate
PGGD	General Waste Management Plan
PNGD	Le plan national de gestion des déchets
PP	Polypropylene
PPWD	Packaging and Packaging Waste Directive
PRO	Producer Responsibility Organisation
PS	Polystyrene
R&D	Research and development
RR	Recycling rate
SRF	Success and risk factor
TOC	Total Organic Carbon
WEEE	Waste Electric and Electronic Equipment
WFD	Waste Framework Directive

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Annex 1 Detailed scoring of success and risk factors

Assessment sheet - Recycling target for municipal waste

MS Luxembourg

Date Jun-22

SRF		Assessment result	Weight	Score
Current situation and past trends				
MSWR-1.1	Distance to target	Distance to target 5 - 15 percentage points	5	5
MSWR-1.2	Past trends in municipal solid waste recycling rate	RR > 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 implemented in some regions/ municipalities (50-80% of population covered) OR No or less than 50% of the population covered by PAYT but firm plans for rolling out	1	1

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 medium share of the population is covered by high convenience collection services	0.06	0.06
	Textiles	A high share of the population is covered by high convenience collection services	0.06	0.12
	WEEE	High to medium convenience collection services dominate	0.04	0.08
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	There are plans to improve the collection service but unclear plan for implementation	0.03	0.03
	Textiles	N/A (for countries in which a very high share of the population is already covered by high convenience collection services)	0.03	0
	WEEE	Firm plans to improve the separate collection system, with clear responsible entities and defined targets and timeline	0.02	0.04

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/digistate	Legally binding national standards for compost/digestate quality in place, and quality management system in place	1	2
			Total score	**18.01**
			Maximum score	32.10
				56%

Assessment sheet - Recycling target for packaging waste

MS Luxembourg

Date Jun-22

SRF		Assessment result	Weight	Score
Current situation and past trends				
P-1.1	Distance to target - Overall packaging	< 5 percentage points below target, or target exceeded	5	10
	Distance to target - Paper and cardboard packaging	< 5 percentage points below target, or target exceeded	5	10
	Distance to target - Ferrous metals packaging	< 5 percentage points below target, or target exceeded	5	10
	Distance to target - Aluminium packaging	< 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	> 15 percentage points below target, or no data reported	5	0
	Distance to target - Wooden packaging	< 5 percentage points below target, or target exceeded	5	10
P-1.2	Past trends in packaging waste recycling rate	RR > 60% and increase in last 5 years < 5 percentage points, or RR > 55%, and increase in last 5 years < 10 percentage points, or RR < 55% and increase in last 5 years > 10 percentage points	1	1
	Past trends in paper and cardboard packaging recycling	RR > 70% and increase in last 5 years < 5 percentage points, or RR > 65%, and increase in last 5 years < 10 percentage points, or RR < 65% and increase in last 5 years > 10 percentage points	1	1
	Past trends in ferrous metals packaging recycling	RR > 65% and increase in last 5 years > 5 percentage points, or RR > 60% and increase in last 5 years > 10 %, or RR > 70%	1	2
	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 delay of > 12 months, or no full transposition yet	1	0
P-2.2	Clearly defined responsibilities for meeting the targets and support and enforcement mechanisms	Clearly defined responsibilities, enforcement and good set of support mechanisms for meeting the recycling targets	1	2
Economic instruments				
P-3.1	Taxes and/or ban for landfilling residual or biodegradable waste	Ban, or landfill tax > 30 EUR/t* with escalator	1	2
P-3.2	Taxes on municipal waste incineration	No incineration taxes or taxes < 7 EUR/t*	1	0
P-3.3	Packaging taxes	No packaging taxes	1	0
P-3.4	Pay-as-you-throw (PAYT) system	PAYT scheme implemented in some regions/ municipalities (50-80% of population covered) OR No or less than 50% of the population covered by PAYT but firm plans for rolling out	1	1
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, with a fee modulation meeting at least two assessment criteria	1	2
	Material specific EPR assessment - Ferrous metals packaging waste	EPR scheme covering household and non-household packaging, with a fee modulation meeting at least two assessment criteria	1	2
	Material specific EPR assessment - Aluminium packaging waste	EPR scheme covering household and non-household packaging, with a fee modulation meeting at least two assessment criteria	1	2
	Material specific EPR assessment - Glass packaging waste	EPR scheme covering household and non-household packaging, with a fee modulation meeting at least two assessment criteria	1	2
	Material specific EPR assessment - Plastics packaging waste	EPR scheme covering household and non-household packaging, with a fee modulation meeting at least two assessment criteria	1	1
	Material specific EPR assessment - Wooden packaging waste	EPR scheme covering all non-household packaging	1	2
Total packaging recycling target				**22.00**
			Maximum score	32.00
				69%

Paper and cardboard recycling target

Total score	**22.00**
Maximum score	30.00
	73%

Ferrous metals packaging recycling target

Total score	**23.00**
Maximum score	30.00
	77%

Aluminium packaging recycling target

Total score	**23.00**
Maximum score	32.00
	72%

Glass packaging recycling target

Total score	**23.00**
Maximum score	32.00
	72%

Plastics packaging recycling target

Total score	**10.00**
Maximum score	34.00
	29%

Wooden packaging recycling target

Total score	**23.00**
Maximum score	32.00
	72%

Assessment sheet - Target for landfilling of municipal waste

MS Luxembourg

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%