

Methodology for the EEA's 'Early warning' assessments – target for the preparing for reuse and recycling of municipal solid waste



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Cover design: EEA
Cover image: generated by A.I.
Layout: ETC CE

Version: 1

Publication Date December 2025

EEA activity Circular Economy and Resource Use

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

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

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

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Acknowledgements

This methodology has been developed by the European Topic Centre on Circular economy and resource use (ETC CE) under the guidance of the European Environment Agency (EEA).

The ETC CE and EEA would like to thank the European Environment Information and Observation Network (Eionet) and the European Commission (DG Environment, DG Sante and the Joint Research Centre) for their valuable comments to a draft version of this document.

Introduction

This document describes the methodology for the input of the EEA to the Early warning mechanism according to Art. 11b of the Waste Framework Directive (WFD), with the aim to assess the 27 Member States' and 3 EEA-EFTA States' prospects of meeting the **target to prepare for reuse and recycle 60% of municipal waste generated by 2030** as defined in Art. 11(2d).

The methodology uses a set of 'success/risk factors' (SRFs). An SRF is assumed to influence the probability of meeting the target. For each SRF, the robustness of the underlying data/information will be assessed qualitatively. Regarding numeric reported data, the EEA will rely on Eurostat's quality checking and validation process.

The assessment of each SRF is done through threshold values or qualitative assessment categories that categorize each factor into green, orange or red:

on track target reached favourable	additional effort needed medium uncertain	unfavourable highly uncertain no information
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The risk assessment should indicate whether a country is at risk of not meeting the target. The 'total score' is the sum of the individual scores of each SRF, where the assessment of each SRF results in 2 points (green), 1 point (orange) or 0 points (red), depending on the assessment of the SRF. Only for the SRF on the distance to target, a gliding allocation of points is used. As some SRFs are considered to have a higher impact on meeting the target, the points of the SRF are multiplied by the defined weight of the SRF, which results in the SRF score. This weighting factor is included in the description of the SRF. As some SRFs might not be applicable to all Member States (MS), only the SRFs relevant to the MS are taken into account to define the maximum score. A MS is considered to be 'not at risk' if its score is 50% or more of this maximum score. A MS is considered to be 'at risk' if its score is less than 50% of this maximum score. Table 1 illustrates how the final overall risk is calculated.

Table 1: Mock-up of how the final overall risk is calculated (general approach)

Relevant success and risk factors	Assessment result	Points	Weight of the SRF	Score
SRF 1		2	1	2
SRF 2		2	2	4
SRF 3		0	1	0
SRF 4		1	1	1
SRF 5		2	1	2
...
...
Total score (= sum of scores of all relevant SRFs)				9
Maximum score (= highest total possible score of all relevant SRFs)				12
Assessment score (= total score divided by the maximum score)				75%
Final overall risk	Not at risk if assessment score > or = 50% of maximum score			Not at risk
	At risk if assessment score < 50% of maximum score			

The early warning methodology is not intended to evaluate compliance with specific legal obligations imposed on economic operators or Member States, nor with voluntary or mandatory commitments outlined in the WFD. Instead, it focuses on assessing progress toward the preparing for reuse and recycling target by examining the presence, absence, and coverage of contributing factors. These factors include dedicated policies and instruments designed to support, enable, or drive both binding and non-binding obligations under the WFD. Importantly, the assessment does not require exhaustive overviews with

details of all existing or planned measures. Member States are instead encouraged to provide sufficient evidence that meaningful efforts—whether mandatory or voluntary—are being made to achieve the municipal waste preparing for reuse and recycling target.

1 Current situation and past trends

1.1 SRF MSWR–1.1 Distance to target for preparing for reuse and recycling of municipal solid waste

Description and relevance

The distance to the target at the most recent data point is a key factor in assessing the likelihood of meeting it. Generally, the closer a Member State is to the target, the higher the probability of achievement, assuming current trends continue.

Source

The data source used is the Eurostat dataset ‘Municipal_waste_material_breakdown’ [not yet available in Eurostat’s database], used for showing compliance with the 2025, 2030 and 2035 targets, in accordance with the European Commission’s Implementing Decision 2019/1004.

Assessment

Distance to target < 5 percentage points OR Target reached	2	Distance to target > 15 percentage points OR Data according to reporting rules not available
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For this SRF, a gliding allocation of points as indicated in the table below will be used to better account for situations close to the thresholds between the ‘green’ and ‘orange’, and ‘orange’ and ‘red’ assessment. E.g. a MS with a distance to target of 6 percentage points will score 8.35 points (1.67 points x 5) on this SRF.

DtT(*)	< 5	5	6	7	8	9	10	11	12	13	14	15	> 15
Points	2	1.83	1.67	1.50	1.33	1.17	1.00	0.83	0.67	0.50	0.33	0.17	0

(*) Distance to target in percentage points, rounded to the nearest whole number.

Weight

5

With a weight of five, this SRF has a major impact on the total score and outcome of the assessment.

Considerations for the assessment

According to WFD Article 11(2), MS may postpone the deadlines for attaining the preparing for reuse and recycling target of 60% by 2030 by up to five years, under certain conditions as specified in the WFD and notifying the Commission at the latest 24 months before the respective deadline. The assessment of this SRF will be done for the target without postponement. However, any postponement of the target will be duly acknowledged in the assessment text. Further information on derogations will be included in the Commission’s Early Warning report. As bio-waste not separated at source cannot be counted into the 2030 recycling target, the recycling rate used for the assessment will be adjusted to exclude mechanical-biological treatment (MBT)-based bio-waste recycling if needed.

Specific for the EEA-EFTA States: Due to delays inherent in the EEA Agreement, the new reporting rules enter into force later in time for the EEA EFTA States than for the EU Member States. The EEA EFTA States will therefore be assessed based on the reporting rules legally in force at the time of the assessment, or upcoming reporting rules in case of voluntary reporting.

1.2 SRF MSWR-1.2 Past trend in the rate of preparing for reuse and recycling of municipal solid waste

Description and relevance

The development of the historical trend in the rate of preparing for reuse and recycling (RR) indicates previous progress towards recycling in the MS. Has the recycling performance of the MS over the past years been stagnating or increasing, and how does it relate to the current recycling rate? The closer the MS is to the target, the lower the pace toward the target will probably be. This SRF helps to better understand the dynamics of the recycling rate. Also, MS with a large increase in recycling rate give valuable insights into the effectiveness of implemented measures resulting in this increase.

Source

The data source used is the Eurostat dataset 'Municipal_waste_material_breakdown' [not yet available in Eurostat's database], used for showing compliance with the 2025, 2030 and 2035 targets, in accordance with the European Commission's Implementing Decision 2019/1004. The data is the same as those used in SRF MSWR-1.1 distance to target.

Assessment

RR ≥ 55% and increase in last 5 years ≥ 5 percentage points OR RR ≥ 50% and increase in last 5 years ≥ 10 percentage points OR RR ≥ 60%	RR ≥ 55% and increase in last 5 years < 5 percentage points OR RR ≥ 50% and increase in last 5 years < 10 percentage points OR RR ≤ 50% and increase in last 5 years > 10 percentage points	RR < 50% and increase in last 5 years < 10 percentage points OR Data according to reporting rules not available
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RR = recycling rate

Weight

1

Considerations for the assessment

This SRFs assumes an availability of five data points (2020-2024) in accordance with Commission Implementing Decision 2019/1004. However, in case less such data points are available at the time of the early warning assessment, the threshold values in the assessment can be adjusted taking into account the number of available data points, with a minimum of three consecutive years without a break in time series. For example, in case data for only 3 consecutive years without a break in time series are available, the threshold values in the assessment will be adjusted as follows:

RR ≥ 55% and increase in last 3 years ≥ 3 percentage points OR RR ≥ 50% and increase in last 3 years ≥ 6 percentage points OR RR ≥ 60%	RR ≥ 55% and increase in last 3 years < 3 percentage points OR RR ≥ 50% and increase in last 3 years < 6 percentage points OR RR ≤ 50% and increase in last 3 years > 6 percentage points	RR < 50% and increase in last 3 years < 6 percentage points OR Data according to reporting rules not available
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According to WFD Article 11(2), MS may postpone the deadlines for attaining the preparing for reuse and recycling target of 60% by 2030 by up to five years, under certain conditions as specified in the WFD and notifying the Commission at the latest 24 months before the respective deadline. The assessment of this SRF will be done for the target without postponement. However, any postponement of the target will be duly acknowledged in the assessment text. Further information on derogations will be included in the Commission's Early Warning report.

Furthermore, as bio-waste not separated at source cannot be counted into the 2030 target, the preparing for reuse and recycling rates used for the assessment will be adjusted to exclude MBT-based biowaste recycled from mixed municipal waste.

2 Implementation mechanisms

2.1 SRF MSWR-2.1 Responsibilities for meeting the targets, support and enforcement mechanisms

Description and relevance

Clearly defined responsibilities, enforcement and support mechanisms for meeting the targets across different entities and governance levels are important for achieving high rates for preparing for reuse and recycling. The clearer the responsibilities for meeting the targets and accountability for failing the targets are, the higher the chance that the targets will be met. The relevant questions to be analysed by this SRF are:

- Is it clearly defined how responsibilities for meeting national preparing for reuse and recycling targets are shared across all governance levels that take decisions influencing the preparing for reuse and recycling rate?
- What are the consequences if the responsible entities do not take (enough and effective) action (e.g. fines)?
- Is there a system at national level that provides technical support coupled with sharing of good practices that can improve efficiency and improvement in performance for the responsible entities? Is a monitoring and reporting system in place that tracks performance at the responsible governance level? Is co-operation on infrastructure planning and/or service procurement encouraged to ensure scale efficiency and sharing of financial burdens?

Source

Questionnaire

Assessment

Clearly defined responsibilities, enforcement mechanisms and good set of support tools for meeting the preparing for reuse and recycling target	<p>Clearly defined responsibilities and good set of support tools but weak/no enforcement mechanisms for meeting the preparing for reuse and recycling target</p> <p>OR</p> <p>Unclear responsibilities but clearly defined enforcement mechanisms and a good set of support tools for meeting the preparing for reuse and recycling target</p> <p>OR</p> <p>Clearly defined responsibilities and enforcement mechanisms but no/weak support tools for meeting the preparing for reuse and recycling target</p>	<p>Unclear responsibilities and weak/no enforcement mechanisms for meeting the preparing for reuse and recycling target, but good set of support tools.</p> <p>OR</p> <p>Unclear responsibilities and no/weak support tools for meeting the preparing for reuse and recycling target but clearly defined enforcement mechanisms.</p> <p>OR</p> <p>Clearly defined responsibilities but weak/no enforcement mechanisms for meeting the preparing for reuse and recycling target, and no/weak support tools.</p> <p>OR</p> <p>Unclear responsibilities, weak/no enforcement mechanisms and lack of support tools for meeting the preparing for reuse and recycling target.</p>
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Weight

1

3 Economic and regulatory instruments

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

Description and relevance

Bans or taxes on the landfilling of residual municipal waste or biodegradable municipal waste as well as on the landfilling of sorting residues or mechanical biological treatment (MBT) outputs discourage landfilling. This creates economic incentives for diversion from landfill towards recycling. Taxes can be more effective if the tax level is increasing over time (escalator), especially when starting from a low level, giving operators certainty for planning. Application of an escalator is therefore rated positively. This SRF evaluates current landfill bans and landfill taxes. The latter are evaluated against the average landfill tax applied across the EU.

Source

[EEA Country profiles](#) (last update 2025).

Assessment

Ban OR Landfill tax* > 43 EUR/t with escalator OR Landfill tax* > 55 EUR/t	Landfill tax* > 43 EUR/t	Landfill tax* < 43 EUR/t OR No landfill tax and no ban
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*Rescaled based on purchasing power parities

Weight

1

Considerations for the assessment

To allow meaningful comparison of landfill taxes across MS and assessing against a common threshold, taking into account different average income levels, the tax is rescaled to the EU27 average using the ‘comparative price levels’ from Eurostat (TEC000120). This is done by dividing the tax by the comparative price level per MS for the year for which the tax is available and multiplying by 100 (EU27 average). The landfill tax or bans relevant for mixed municipal waste or MBT output will be used for the assessment.

3.2 SRF MSWR-3.2 Pay-as-you-throw system

Description and relevance

A pay-as-you-throw (PAYT) system is a charging system for residual municipal waste collection that is based on the polluter pays principle. This means that a household must pay a fee for the collection and treatment of its residual waste based on the generated amount, which is designed to provide an incentive to reduce the amount of residual waste produced. When PAYT is applied, the fee for the residual waste per collected amount is higher than the fee(s) for the separately collected waste fractions, or these other fractions are collected free of charge. This fee can be designed in various ways, taking into account variable elements like container size, volume of sacks, frequency of collection, weight or a combination of these elements. The assessment makes a difference between basic and advanced PAYT designs where advanced systems are assumed to provide stronger incentives for households to reduce residual waste than basic systems:

- Basic PAYT: Volume-based systems, where fees mainly depend on the size of the receptacle used to collect waste, sometimes also taking into account the collection frequency when determining the collection fee.
- Advanced PAYT: A system that provides a direct and visible economic incentive at the time the waste is generated. These systems are often weight-based. Examples of such systems include weighing the waste containers on pick-up, or sack-based systems where the citizens buy waste sacks from the municipality or service provider.

A well-designed and well-implemented PAYT system that covers the entire territory of the MS gives strong incentives to increase the preparing for reuse and recycling rate. MS without a PAYT system or with a basic system that does not fully cover the MS territory are likely to have more difficulties in meeting the target.

Source

Questionnaire

Assessment

A combination of an advanced and basic PAYT (or advanced only) system rolled out to > 80% of the population	A combination of an advanced and basic PAYT system rolled out to 50-80% of the population OR A basic PAYT system rolled out to > 80% of the population	A basic PAYT system rolled out to < 80% of population OR No PAYT in place
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Weight

2

This SRF gets a weight factor of 2 for the overall risk assessment as PAYT systems are considered to have a strong influence on the separate collection behaviour.

3.3 SRF MSWR-3.3 Firm plans to introduce or improve the pay-as-you-throw system

Description and relevance

Are there concrete plans to introduce or improve the type and coverage of a PAYT system within the next two years? This SRF is only relevant for MS that do not have a 'green' assessment in SRF MSWR-3.2, unless these MS have firm plans to even further improve their PAYT system. 'Firm plans' are plans with legislative proposals in place and a publicly announced start date (within the next two years). See SRF MSWR-3.2 for explanation of the different PAYT systems.

Source
Questionnaire

Assessment

Firm plans in place to roll out a combination of an advanced and a basic PAYT system to >80% of the population OR Firm plans to further improve the PAYT system by increasing the share of advanced PAYT systems and/or population coverage	Firm plans in place to roll out a combination of an advanced and basic PAYT system to 50-80% of the population OR Firm plans to roll out a basic PAYT system to > 80% of the population	No firm plans in place to roll out a basic PAYT system to at least 80% of the population OR No firm plans in place to introduce or improve the type or coverage of the PAYT system.	N/A (for MS in which a combination of an advanced and basic PAYT (or advanced only) system is already rolled out to > 80% of the population, and with no firm plans for further improvement)
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Weight
1

4 Separate collection systems

4.1 SRF MSWR-4.1 Convenience and coverage of the separate collection system for the most relevant household waste fractions

Description and relevance

Separate collection is the collection where a waste stream is kept separate by type and nature to facilitate recycling and preparation for reuse operations. The convenience of a separate collection system for citizens will have an influence on the amounts and quality of waste collected through that system. What part of the population is covered by separate collection? How does the convenience relate to the convenience of the collection of residual waste?

This factor focusses on the waste fractions with the highest EU average shares in municipal waste (bio-waste (37%¹), paper and cardboard (18%) and plastics (10%), accounting together for about two thirds of all municipal waste. These shares are based on the shares of the different waste fractions in municipal waste, based on data from the Eurostat dataset 'municipal_waste_material_breakdown' for reference year 2022, recalculated to 100 % to account for the mixed waste and undefined 'other' fractions². Paper and cardboard and plastics in municipal waste consist both of packaging and non-packaging waste, with packaging making up around 65-80%³ of these materials. Having a highly convenient separate collection system in place for these fractions that covers a high share of the population, will therefore enable higher recycling rates. Bio-waste includes both food and garden waste.

According to Brambilla et al. (2024), separate collection of food/kitchen waste and garden waste as individual streams allows better planning of both collection services. Food/kitchen waste collection at households works better where door-to-door schemes are in place, and where food/kitchen waste is collected more frequently than residual waste. Low-frequency collection schemes for garden waste

¹ Excluding bio-waste separated and recycled at source

² Three EU countries that reported a very high share (more than 60%) of 'mixed waste' were excluded in the calculation as this indicates reporting is most likely not based on waste composition.

³ Estimate based on various data sources from [Denmark](#), Finland, Flanders, [Germany](#), and [Netherlands](#)

on the other hand can stimulate the practice of home composting. For this reason, this SRF also distinguishes between convenience levels for food/kitchen waste and garden waste.

The convenience of separate collection systems can also be different depending on the character of an area. The following categorization is used to assess the degree of convenience, depending on the degree of urbanization⁴ and type of material. The assessment is done based on the prevailing type of system per type of urbanization. The population coverage by high convenience separate collection will be determined, for each packaging waste fraction, using the amount of people living in the different types of urbanized areas.

Waste fraction	Cities (densely populated areas)					Towns and suburbs (intermediate density areas)					Rural areas (thinly populated areas)			
	Door-to-door - separate	Door-to-door - co-mingled	Bring point (>5 per km ²)	Bring point (<5 per km ²)	Civic amenity site	Door-to-door - separate	Door-to-door - co-mingled	Bring point (>5 per km ²)	Bring point (<5 per km ²)	Civic amenity site	Door-to-door - separate	Door-to-door - co-mingled	Bring point	Civic amenity site
Residual waste	H		H			H		H			H		H	
Bio-waste (commingled food and garden waste), or food waste	H					H					H			
Paper and cardboard	H	H	H			H	H	H			H	H	H	
Plastics	H	H	H			H	H	H			H	H	H	

Notes:

H = high-convenience

Collection at civic amenity sites is not considered as high-convenience to citizens if it is the prevailing collection system but it can complement a system of high-convenience collection.

Source

Questionnaire; and Eurostat: Household characteristics by degree of urbanization ([HBS CAR T315](#))

Assessment

Ideally, the assessment would be based on the shares of the population served by each type of collection system. However, this information is usually not available, and a proxy methodology is therefore used for assessing the share of the population covered by high convenience collection services. Member States will therefore be asked to indicate in the questionnaire, which collection system for residual, bio-waste, paper and cardboard and plastics is dominant in cities, in towns and suburbs, and in rural areas. If a certain system is dominant e.g. in cities and 40 % of the population lives in cities, the methodology assumes that 40 % of the population is served by this system, and so on. If no dominant system is indicated, it is assumed that the population coverage of each system in place is evenly distributed. More than 80% of the population is characterized as 'high share of the population', 50 – 80% is characterized as 'medium share of the population', and less than 50% is characterized as 'low share of the population'.

⁴ The degree of urbanization classifies local administrative units (LAUs) as cities, towns and suburbs or rural areas based on a combination of geographical contiguity and population density, measured by minimum population thresholds applied to 1 km² population grid cells; each LAU belongs exclusively to one of these three classes (Eurostat Glossary).

Weight

2

This SRF gets a weighting factor of 2, as separate collection is considered as one of the most important single enabling factor for high recycling rates. Taking into account the relative weight of each of the three fractions considered for this SRF (related to the aggregated share of all these fractions, i.e. 65%), the weighing factor is distributed as follows:

Fraction	Share	Relative weight	Weighting factor
Bio-waste	37%	56.92%	1.14
Paper and cardboard	18%	27.69%	0.55
Plastics	10%	15.38%	0.31
Total	65%	100%	2

4.1.1 SRF MSWR-4.1.1 Convenience and coverage of the separate collection system for bio-waste

Assessment

For ≥80% of the population, the convenience of the collection service of food waste is similar or higher than the convenience level of residual waste collection	For 50-80% of the population, the convenience of the collection service of food waste is similar or higher than the convenience level of residual waste collection OR For MS that collect food waste and garden waste commingled: At least 50% of the population is covered by high convenience collection services for bio-waste	For less than 50% of the population, the convenience of the collection service of food/kitchen waste is similar or higher than the convenience level of residual waste collection OR For MS that collect food/ kitchen waste and garden waste commingled: Less than 50% of the population is covered by high convenience collection services for bio-waste
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Weight

1.14

4.1.2 SRF MSWR-4.1.2 Convenience and coverage of the separate collection system for paper and cardboard waste

Assessment

≥80% of the population is covered by high-convenience collection services for packaging waste AND at least 50% of the population is covered by high-convenience collection services for non-packaging waste	At least 50% of the population is covered by high-convenience collection services for packaging and non-packaging waste OR ≥80% of the population is covered by high-convenience collection services for packaging waste BUT less than 50% of the population is covered by high-convenience collection services for non-packaging waste OR	Less than 50% of the population is covered by high-convenience collection services for packaging waste OR Less than 80% of the population is covered by high-convenience collection services for packaging waste AND less than 50% of the population is covered by high-convenience collection services for non-packaging waste
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	≥80% of the population is covered by high-convenience collection services for non-packaging waste BUT less than 50% of the population is covered by high-convenience collection services for packaging waste	
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Weight

0.55

4.1.3 SRF MSWR-4.1.3 Convenience and coverage of the separate collection system for plastics waste

Assessment

≥80% of the population is covered by high-convenience collection services for packaging waste AND at least 50% of the population is covered by high-convenience collection services for non-packaging waste	At least 50% of the population is covered by high-convenience collection services for packaging and non-packaging waste OR ≥80% of the population is covered by high-convenience collection services for packaging waste BUT less than 50% of the population is covered by high-convenience collection services for non-packaging waste OR ≥80% of the population is covered by high-convenience collection services for non-packaging waste BUT less than 50% of the population is covered by high-convenience collection services for packaging waste	Less than 50% of the population is covered by high-convenience collection services for packaging waste OR Less than 80% of the population is covered by high-convenience collection services for packaging waste AND less than 50% of the population is covered by high-convenience collection services for non-packaging waste
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Weight

0.31

4.2 SRF MSWR-4.2 Firm plans to improve the convenience and coverage of the separate collection system

Description and relevance

Are there concrete plans to improve the convenience and coverage of separate collection of bio-waste, paper and cardboard or plastics within the next two years? This SRF is only relevant for MS that have not been assessed as 'green' in SRF MSWR-4.1, unless these MS have firm plans to even further improve their high convenience collection system. 'Firm plans' are plans with legislative proposals in place and a publicly announced start date (within the next two years).

Source

Questionnaire

Weight

1

Taking into account the relative weight of the three fractions, the weighing factor of this SRF is distributed as follows: bio-waste (0.57), paper and cardboard (0.28), plastics (0.15).

4.2.1 SRF MSWR-4.2.1 Firm plans to improve the convenience and coverage of the separate collection system for bio-waste

Assessment

Firm plans to improve convenience and coverage of the separate collection system for bio-waste	There are plans to improve the collection system for bio-waste but unclear plan for implementation	No firm plans to improve the convenience and coverage of bio-waste collection	N/A (for MS in which a high share of the population is already covered by high convenience collection services for bio-waste)
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Weight

0.57

4.2.2 SRF MSWR-4.2.2 Firm plans to improve the convenience and coverage of the separate collection system for paper and cardboard waste

Assessment

Firm plans to improve convenience and coverage of the separate collection system for paper and cardboard waste	There are plans to improve the collection system for paper and cardboard waste, but unclear plan for implementation	No firm plans to improve the convenience and coverage of paper and cardboard waste collection	N/A (for MS in which a high share of the population is already covered by high convenience collection services for paper and cardboard waste)
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Weight

0.28

4.2.3 SRF MSWR-4.2.3 Firm plans to improve the convenience and coverage of the separate collection system for plastics waste

Assessment

Firm plans to improve convenience and coverage of the separate collection system for plastics waste	There are plans to improve the collection system for plastics waste, but unclear plan for implementation	No firm plans to improve the convenience and coverage of plastics waste collection	N/A (for MS in which a high share of the population is already covered by high convenience collection services for plastics waste)
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Weight

0.15

4.3 SRF MSWR-4.3 Mandatory separation at source for municipal waste generated by other entities than households

Description and relevance

Municipal waste includes waste from other sources than households, where this waste is similar in nature and composition to waste from households. The collection of non-household municipal waste influences the preparation for reuse and recycling rate of MSW. In addition, high quality recycling can only be reached using separate collection. This SRF assesses whether or not the MS mandates separation at source for other sources than households, enabling separate collection, for the three most significant fractions in the municipal waste (bio-waste, paper and cardboard and plastics).

Source

Questionnaire

Assessment

Separation at source is mandatory for non-household bio-waste, paper and cardboard and plastic waste	Separation at source is only mandatory for non-household bio-waste AND/OR Separation at source is only mandatory for non-household paper and cardboard waste AND/OR Separation at source is only mandatory for non-household plastic waste OR Separation at source is mandatory for non-household bio-waste, paper and cardboard and plastic waste, however with significant exemptions within one or more of these fractions	Separation at source is neither mandatory for non-household bio-waste, paper and cardboard, nor plastic waste
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Weight

1

5 Bio-waste treatment capacity and quality management

5.1 SRF MSWR-5.1 Capacity for the treatment of bio-waste

Description and relevance

Bio-waste is the largest single waste fraction in municipal waste, and it is important to have sufficient authorised treatment capacity. It is assumed that not all bio-waste can be captured through the separate collection system for bio-waste, therefore it is assumed that enough capacity exists if there is authorised capacity available to treat 80% of the generated bio-waste. Firm plans to extend the authorised treatment capacity improve the rating.

The assessment will be based on the amounts of generated bio-waste (excluding generated home-composted bio-waste), as to be published by Eurostat in 2025. The authorized treatment capacity used for the assessment excludes capacity to treat mixed municipal waste, e.g. in Mechanical-Biological Treatment facilities.

Source

Eurostat (data on bio-waste generated), and questionnaire (data on treatment capacities)

Assessment

Enough treatment capacity for at least 80% of the generated bio-waste (excluding home composting)	Treatment capacity available for less than 80% of the generated bio-waste (excluding home composted bio-waste) but firm plans to close the gap	Treatment capacity available for less than 80% of the generated bio-waste (excluding home composted bio-waste) and no firm plans to close the gap OR No data available on bio-waste treatment capacity
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Weight

1

Considerations for the assessment

This assessment needs to take into account if the authorised treatment capacity is available for bio-waste from municipal waste (e.g. if anaerobic digestion plants for manure also can take in bio-waste from households and if they are in the proximity of where the waste is produced).

5.2 SRF MSWR-5.2 Legally binding national standards and quality management system for compost/digestate

Description and relevance

Are there legally binding national quality standards available for compost/digestate, and is there a quality management system (QMS) in place to ensure a good quality compost/digestate produced from bio-waste from households and similar sources? To create a market for compost and digestate, compost should be of a good quality for use as a soil improver or fertilizer. National standards and a quality management system aim at building trust in the products by providing guarantees regarding the quality of these end products. A quality management system aims at addressing different elements of a production process to ensure a stable and high-quality output (product). The elements that are most likely to be covered relate to the input of the process, operational aspects and composition of the output. If all production-aspects are covered, this is seen as a QMS.

The EU Fertilizers Regulation (2019/1009) sets out criteria covering safety, quality and labelling that all fertilising products must meet so that they can be freely traded throughout the EU. However, this is only mandatory for producers seeking CE labelling to market compost or digestate across Europe, while locally sold products can follow national regulations. As a result, much of the locally marketed compost does not require CE labelling. This SRF assesses whether there are binding national standards and a mandatory or voluntary QMS in place for all compost/digestate, regardless of whether it is sold locally or traded throughout the EU.

Source

Questionnaire

Assessment

Legally binding national standards for compost/digestate quality in place, and mandatory or voluntary quality management system in place	Legally binding national standards for compost/digestate quality but no quality management system	No national standards for compost/digestate or quality management system, or still under development
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Weight

1

6 Other measures or initiatives for advancing the preparing for reuse and recycling of municipal solid waste

6.1 SRF MSWR-6.1 Initiatives for advancing the preparing for reuse and recycling of municipal solid waste (bonus success factor)

Description and relevance

This SRF awards MS that have implemented national measures or initiatives that contribute significantly to improving municipal waste preparing for reuse and recycling performance and that are not yet covered under any of the previous SRFs. These initiatives may include (but are not restricted to) innovative pilot projects to increase preparing for reuse and recycling of municipal waste; regular awareness campaigns to support separate collection with measurable impact; digital platforms for citizen engagement in waste sorting; or the setting of targets addressing the preparing for reuse and/or recycling that go beyond the EU target.

The assessment is based on the following criteria:

- The measure/initiative is coordinated at national or (multi-)regional level and its findings, methodologies and lessons learnt are actively shared – ensuring broad applicability and scaling potential. Or, if the measure/initiative is a pilot project on local or regional level and its findings, methodologies and lessons learnt are actively shared to enable scaling across the whole country.
- The measure/initiative has a documented quantitative or qualitative impact on the preparing for reuse and recycling rate, either measurable or supported by expert judgement.

Source

Questionnaire

Assessment

MS has implemented at least one measure or initiative to increase the preparing for reuse and recycling rate that meets all criteria.	MS has implemented at least one measure or initiative to increase the preparing for reuse and recycling rate that meets one of the two criteria.	N/A
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Weight

1

Considerations for the assessment

This SRF provides an opportunity to gain additional points in the overall assessment. Importantly, MS that do not have such initiatives will not be penalized, as this SRF will simply not be taken into account in their scoring.

7 List of abbreviations

EEA	European Environment Agency
EC	European Commission
ETC CE	European Topic Centre on Circular Economy and Resource Use
MBT	Mechanical biological treatment
MS	(EU) Member States (European Union)
MSW	Municipal solid waste
PAYT	Pay-as-you-throw (system)
PPWR	Packaging and Packaging Waste Regulation
SRF	Success/risk factor
WFD	Waste Framework Directive
QMS	Quality management system
Questionnaire	One of the key sources for collecting information mentioned in the methodology is a questionnaire to MS, designed by the EEA and ETC CE to collect information on a voluntary basis.

8 References

Brambilla V., Confalonieri A., Krutova I., Lopez E., Giavini M. & Ricci M. (2024). LIFE BIOBEST D3.1 Guidelines on the separate collection of bio-waste

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

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

