Methodology for the EEA's input to the 'Early warning' Assessment – Packaging waste recycling target

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European Environment Agency
European Topic Centre on Waste and Materials in a Green Economy

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Contents

Abbreviations and explanations 4
Introduction 6
1 Current situation and past trends 8
SRF P-1.1 Distance to target 8
SRF P-1.2 Past trend in Packaging Waste Recycling 10
2 Legal instruments 13
SRF P-2.1 Proper and timely transposition of the revised Packaging and Packaging Waste Directive into national law 13
SRF P-2.2 Clearly defined responsibilities for meeting the targets, and enforcement mechanisms, e.g. fines etc. 13
3 Economic instruments 14
SRF P-3.1 Taxes and/or ban for landfilling residual- or biodegradable waste 14
SRF P-3.2 Taxes on municipal waste incineration 14
SRF P-3.3 Packaging taxes 15
SRF P-3.4 Pay-as-you-throw (PAYT) system in place 15
SRF P-3.5 Deposit-return systems 16
SRF P-3.5.1 Deposit-return systems for Aluminium drink cans 16
SRF P-3.5.2 Deposit-return systems for Glass drink bottles 16
SRF P-3.5.3 Deposit-return systems for Plastic drink bottles 16
SRF P-3.5.4 Deposit-return systems for Plastic crates 17
SRF P-3.5.5 Deposit-return systems for Wooden packaging 17
4 Separate collection systems 17
SRF P-4.1 Convenience and coverage of separate collection for different packaging waste fractions 17
SRF P-4.1.1 Convenience and coverage of the separate collection system for Paper and cardboard packaging 19
SRF P-4.1.2 Convenience and coverage of the separate collection system for Ferrous metals packaging 19
SRF P-4.1.3 Convenience and coverage of the separate collection system for Aluminium packaging 20
SRF P-4.1.4 Convenience and coverage of the separate collection system for Glass packaging 20
SRF P-4.1.5 Convenience and coverage of the separate collection system for Plastic packaging 21
SRF P-4.1.6 Convenience and coverage of the separate collection system for Wooden packaging 21
SRF P-4.2 Firm plans to improve the type and coverage of separate collection for different packaging waste fractions 22
SRF P-4.2.1 Firm plans to improve the type and coverage of separate collection for Paper and cardboard packaging waste 22
SRF P-4.2.2 Firm plans to improve the type and coverage of separate collection for Ferrous metals packaging waste 22

SRF P-4.2.3 Firm plans to improve the type and coverage of separate collection for Aluminium packaging waste ... 23
SRF P-4.2.4 Firm plans to improve the type and coverage of separate collection for Glass packaging waste ... 23
SRF P-4.2.5 Firm plans to improve the type and coverage of separate collection for Plastic packaging waste ... 24
SRF P-4.2.6 Firm plans to improve the type and coverage of separate collection for Wooden packaging waste ... 24
5 Extended producer responsibility (EPR) and similar schemes ... 25
SRF P-5.1 Coverage of EPR schemes ... 25
SRF P-5.2 Fee modulation in EPR schemes for packaging ... 26
SRF P-5.3 Material specific EPR assessment ... 27
SRF P-5.3.1 EPR scheme for Paper and cardboard packaging waste ... 27
SRF P-5.3.2 EPR scheme for Ferrous metals packaging waste ... 27
SRF P-5.3.3 EPR scheme for Aluminium packaging waste ... 27
SRF P-5.3.4 EPR scheme for Glass packaging waste ... 27
SRF P-5.3.5 EPR scheme for Plastic packaging waste ... 28
SRF P-5.3.6 EPR scheme for Wooden packaging waste ... 28
6 Data quality ... 29
SRF P-6.1 Data and quality check ... 29
SRF P-6.2 Verification process used to verify data ... 29
7 Context parameters ... 29
7.1. Economic parameters ... 29
7.2. Evolution of packaging waste generation ... 30
7.3. Implementation of recommendations of the previous Early Warning report (2018) ... 30
7.4. Commitment in the European plastics pact ... 30
7.5. Waste management plan(s) aligned to requirements in Article 28 WFD and adapted to revised directives ... 30

Abbreviations and explanations

EEA	European Environment Agency
EC	European Commission
EPR	Extended Producer Responsibility
ETC/WMGE	European Topic Center / Waste and Materials in a Green Economy
MBT	Mechanical Biological Treatment
MS	(EU) Member States (European Union)
MSW(R)	Municipal Solid Waste (Recycling)
OECD	Organisation for Economic Co-operation and Development
PAYT	Pay-as-you-throw
PET	Polyethylene terephthalate

PS	Polystyrene
QMS	Quality Management System
RR	Recycling Rate
SRF	Success/risk factor
SUP	Single-use plastics
WEEE	Waste Electric and Electronic Equipment
WFD	Waste Framework Directive
Questionnaire	One of the key sources for collecting information mentioned in the methodology is a questionnaire. This questionnaire will be sent out to Member States in early 2021.

Introduction

This document describes the methodology for the input of the EEA to the Early warning mechanism according to Art. 6b of the Packaging and Packaging Waste Directive with the aim to assess the 27 Member States' prospects of meeting the target to recycle 65% of packaging waste generated by 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).

The methodology uses a set of 'success/risk factors'. A success/risk factor is assumed to influence the probability of meeting the target.

The assessment of each success/risk factor is done through threshold values or qualitative assessment categories that categorize each factor into green, yellow or red:

on track target reached favorable	additional effort needed medium uncertain	unfavorable highly uncertain no information

The risk assessment should indicate whether a country is at low, medium or high risk of not meeting the target. The 'total risk' categorization is the result of the sum of the individual scores of each SRF, 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. This weighting factor is included in the description of the SRF. As some SRFs might not be applicable to all 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 more than 66% of this maximum score. A MS is considered to be 'at risk' if its score is less than 33% of this maximum score.

In addition, a number of contextual parameters will be analysed without color-coding. Although these contextual parameters are not 'scored', they are needed to get a deeper insight into the packaging waste management in the MS. As in some cases SRFs could be too rigid and therefore require expert judgement to properly assess them, the insights from the contextual parameters complemented with the information provided by the MS, help to substantiate this expert judgement.

Some success and risk factors (SRFs) are only used to assess the overall target, while others are used to assess only material specific targets, as illustrated in Table 1.

Table 1 Success/risk factors for the assessment of the overall and the material-specific packaging waste recycling targets

SRF	Overall packaging	Paper and cardboard packaging	Ferrous metals packaging	Aluminium packaging	Glass packaging	Plastics packaging	Wooden packaging
P-1.1	x	x	x	x	x	x	x
P-1.2	x	x	x	x	x	x	x
P-2.1	x	x	x	x	x	x	x
P-2.2	x	x	x	x	x	x	x
P-3.1	x	x	x	x	x	x	x
P-3.2	x	x	x	x	x	x	x
P-3.3	x	x	x	x	x	x	x
P-3.4	x	x	x	x	x	x	x
P-3.5				x	x	xx	x

P-4.1	x	x	x	x	x	x	x
P-4.2	x	x	x	x	x	x	x
P-5.1	x						
P-5.2	x						
P-5.3		x	x	x	x	x	x
P-6.1	x	x	x	x	x	x	x
P-6.2	x	x	x	x	x	x	x

1 Current situation and past trends

SRF P-1.1 Distance to target

Description and relevance
By 2025, MS will have to recycle a minimum of 65 % by weight of all packaging waste. 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 MS is to the target already, the more likely it becomes that the MS will meet the target.

Sources
Data reported according to Art. 6(g) PPWD (94/62/EC as amended by 2018/852) and Commission Implementing Decision 2019/665.
Data reported by MS according to Art. 12(3) PPWD on reduction of targets due to reusable sales packaging.
Data will only become available mid-2022. Applications for derogations might come in later.

Assessment

< 5 percentage points below target, or target exceeded	5 - 15 percentage points below target	> 15 percentage points below target, or no data reported

Weight
5

Considerations for the assessment
Member States can apply for a derogation of up to five years. Furthermore, MS are allowed to reduce the target rate for recycling by up to 5 percentage points by taking into account reusable packaging. Where this applies, the assessment of distance to target will be made using country-specific targets.
Member States may apply to postpone the deadlines for attaining the targets until 24 months before the respective deadline. This means, derogations may not have been applied for during the time of the Early warning analysis. Possible derogations will be discussed with eligible Member States during the follow-up interactions.
This SRF refers to the new targets, not to the 2008 targets, and can only be assessed once MS have reported data according to the new reporting rules. MS must report on the new targets for the first time in 2022, following the calculation rules laid down in Commission Implementing Decision 2019/665. In 2020/21, MS can report (recommended, not obliged) for the first time using the new calculation rules (including data on reusable packaging).

SRF P-1.1.1: Distance to target for Paper and cardboard packaging

Description and relevance
Target to recycle at least 75% of Paper and cardboard packaging waste by weight by 2025

Assessment

< 5 percentage points below target, or target exceeded	5 - 15 percentage points below target	> 15 percentage points below target, or no data reported

Weight
5

SRF P-1.1.2: Distance to target for Ferrous metals packaging

Description and relevance
Target to recycle at least 70% of Ferrous metals packaging waste by weight by 2025

Assessment

< 5 percentage points below target, or target exceeded	5 - 15 percentage points below target	> 15 percentage points below target, or no data reported

Weight
5

SRF P-1.1.3: Distance to target for Aluminium packaging

Description and relevance
Target to recycle at least 50% of Aluminium packaging waste by weight by 2025

Assessment

< 5 percentage points below target, or target exceeded	5 - 15 percentage points below target	> 15 percentage points below target, or no data reported

Weight
5

SRF P-1.1.4: Distance to target for Glass packaging

Description and relevance
Target to recycle at least 70% of glass packaging waste by weight by 2025

Assessment

< 5 percentage points below target, or target exceeded	5 - 15 percentage points below target	> 15 percentage points below target, or no data reported

Weight
5

SRF P-1.1.5: Distance to target for Plastic packaging

Description and relevance
Target to recycle at least 50% of plastic packaging waste by weight by 2025

Assessment

< 5 percentage points below target, or target exceeded	5 - 15 percentage points below target	> 15 percentage points below target, or no data reported

Weight
5

SRF P-1.1.6: Distance to target for Wooden packaging

Description and relevance
Target to recycle at least 25% of wood packaging waste by weight by 2025

Assessment

< 5 percentage points below target, or target exceeded	5 - 15 percentage points below target	> 15 percentage points below target, or no data reported

Weight
5

SRF P-1.2 Past trend in Packaging Waste Recycling

Description and relevance
The development of the historical trend in the recycling rate (RR, calculated as the amount of packaging waste recycled divided by the amount of packaging waste generated) indicates previous efforts towards recycling in the MS. Has the recycling performance of the MS over the past five years been stagnating or declining, and how does it relate to the current recycling rate? The closer the country is to the target, the lower the pace toward the target will probably be. This SRF will help to better understand the dynamics of the recycling rate in a MS. Also, MS with a large increase in recycling rate give valuable insights into the effectiveness of implemented measures resulting in this increase.
The trend in recycling rate is calculated based on regularly reported data to Eurostat according to the PPWD, the actual recycling rate in 2022 is taken from the reported data according to the rules of the 2018 PPWD.

Source
Historical trend: Packaging waste generation and recycling reported to Eurostat according to the PPWD (before 2018 revision): dataset env_waspac.
Current situation: Recycling rate for the reference year 2020 as reported in 2022 according to the rules of the 2018 PPWD and Commission Implementing Decision 2019/665.

Assessment

RR > 60% and increase in last 5 years > 5 percentage points, or RR > 55% and increase in last 5 years > 10 %, or RR > 65%	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	RR < 55% and increase in last 5 years < 10 percentage points

Weight
1

Considerations for the assessment
The calculation of the trend might be influenced by a possible change in calculation method during the trend period. This will be taken into account in cooperation with Eurostat.
We are aware of the problem of under-reporting of packaging waste generated/put-on-the-market in some countries. However, this SRF assesses the trend only, and unless MS changed their way of

reporting over the past 5 years, the trend itself should not be affected by the under-reporting of packaging waste put-on-the-market/generation data.

SRF P-1.2.1: Paper and cardboard packaging

Assessment

RR > 70% and increase in last 5 years > 5 percentage points, or RR > 65% and increase in last 5 years > 10 %, or RR > 75%	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	RR < 65% and increase in last 5 years < 10 percentage points

Weight
1

SRF P-1.2.2: Ferrous metals packaging

Assessment

RR > 65% and increase in last 5 years > 5 percentage points, or RR > 60% and increase in last 5 years > 10 %, or RR > 70%	RR > 65% and increase in last 5 years < 5 percentage points, or RR > 60%, and increase in last 5 years < 10 percentage points, or RR < 60% and increase in last 5 years > 10 percentage points	RR < 60% and increase in last 5 years < 10 percentage points

Weight
1

SRF P-1.2.3: Aluminium packaging

Assessment

RR > 45% and increase in last 5 years > 5 percentage points, or RR > 40% and increase in last 5 years > 10 %, or RR > 50%	RR > 45% and increase in last 5 years < 5 percentage points, or RR > 40%, and increase in last 5 years < 10 percentage points, or RR < 40% and increase in last 5 years > 10 percentage points	RR < 40% and increase in last 5 years < 10 percentage points

Weight
1

SRF P-1.2.4: Glass packaging

Assessment

RR > 65% and increase in last 5 years > 5 percentage points, or RR > 60% and increase in last 5 years > 10 %, or RR > 70%	RR > 65% and increase in last 5 years < 5 percentage points, or RR > 60%, and increase in last 5 years < 10 percentage points, or RR < 60% and increase in last 5 years > 10 percentage points	RR < 60% and increase in last 5 years < 10 percentage points

Weight
1

SRF P-1.2.5: Plastic packaging

Assessment

RR > 45% and increase in last 5 years > 5 percentage points, or RR > 40% and increase in last 5 years > 10 %, or RR > 50%	RR > 45% and increase in last 5 years < 5 percentage points, or RR > 40%, and increase in last 5 years < 10 percentage points, or RR < 40% and increase in last 5 years > 10 percentage points	RR < 40% and increase in last 5 years < 10 percentage points

Weight
1

SRF P-1.2.6: Wooden packaging

Assessment

RR > 20% and increase in last 5 years > 5 percentage points, or RR > 15% and increase in last 5 years > 10 %, or RR > 25%	RR > 20% and increase in last 5 years < 5 percentage points, or RR > 15%, and increase in last 5 years < 10 percentage points, or RR < 15% and increase in last 5 years > 10 percentage points	RR < 15% and increase in last 5 years < 10 percentage points

Weight
1

2 Legal instruments

SRF P-2.1 Proper and timely transposition of the revised Packaging and Packaging Waste Directive into national law

Description and relevance

Are the relevant articles of the PPWD as amended by Directive 2018/852 been properly transposed into national law within the foreseen period or is there a delay? The following articles are selected for being most relevant for meeting the targets:

- Article 3 Definitions
- Article 4.1 Prevention
- Article 5 Reuse
- Article 6 Recovery and recycling
- Article 6a Rules on the calculation of the attainment of the targets
- Article 7 Return, collection and recovery systems
- Article 12 Information systems and reporting
- Article 13 Information for users of packaging
- Article 14 Management Plans

Source

European Commission

Assessment

Transposition without delay	Transposition with a delay of less than 6 months	Transposition with delay of > 6 months, or no full transposition yet

Weight

1

SRF P-2.2 Clearly defined responsibilities for meeting the targets, and enforcement mechanisms, e.g. fines etc.

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 recycling rates. The relevant questions to be analysed by this SRF are: Is it clearly defined how responsibilities for meeting national recycling targets at shared across all (governance) levels that take decisions influencing the recycling rate? What are the consequences if the responsible entities do not take (enough and effective) action (e.g. fines or support mechanisms)? 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? The clearer the responsibilities for meeting the targets and consequences for failing the targets are defined, the higher the chance that the targets will be met.

Source

Questionnaire

Assessment

Clearly defined responsibilities and enforcement mechanisms	Partly defined responsibilities or weak enforcement mechanisms	Unclear responsibilities or no enforcement mechanisms

Weight
1

Considerations for the assessment
Business-to-business packaging also needs to be considered in this assessment.

3 Economic instruments

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

Description and relevance
Bans or taxes for the landfilling of residual municipal waste or biodegradable municipal waste and sorting residues or MBT outputs discourage landfilling and thereby create economic incentives for diversion from landfill. These incentives also affect packaging waste.

Source
EEA country profiles (last update 2016), and CEWEP 'Landfill taxes and bans overview'. Update through questionnaire.

Assessment

Ban, or landfill tax > 30 Euro/tonne* with escalator	Yes, taxes > 30 Euro/tonne*	No or low tax (< 30 Euro/tonne*)

*rescaled based on purchasing power parities

Weight
1

Considerations for the assessment
To allow meaningful comparison of landfill taxes across MS, 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).

SRF P-3.2 Taxes on municipal waste incineration

Description and relevance
Taxes on incineration can help discourage strong reliance on residual waste treatment and thus support recycling. Are there taxes for incinerating of PW/ residual MSW? The assessment relates to the tax to be paid for domestic waste (i.e. not for incineration of imported waste), as only this is relevant as an incentive to divert domestic waste from incineration and influencing the recycling rate.

Source
Questionnaire

Assessment

Yes, taxes > 7 Euro/tonne* with escalator	Yes, taxes > 7 Euro/tonne*	No or taxes < 7 Euro/tonne*	N/A (for countries without capacities for incineration)

*rescaled based on purchasing power parities

Weight
1

Considerations for the assessment
Exemptions from the tax for exports will be considered on a case-by-case basis

SRF P-3.3 Packaging taxes

Description and relevance
Are there packaging taxes in place with the aim to reduce packaging waste generation and/or to influence the choice of packaging materials and encouraging recyclability and ecodesign?

Source
OECD database on environmental taxes, Questionnaire

Assessment

Yes	No

Weight
1

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

Description and relevance
Is there a Pay-as-you-throw (PAYT) system in place? A PAYT[1] system is a charging system for residual municipal waste management that is based on the polluter pays principle. This means that a household pays a fee for the collection and treatment of its residual waste based on the generated amount which is intended to provide an incentive to reduce the amount of residual waste produced. 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. 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. A well-designed and well-implemented PAYT system that covers the entire territory of the MS gives strong incentives to increase the recycling rate. MS without a PAYT system or with a system that does not fully cover the MS territory will have more difficulties in meeting the target.

Source
Questionnaire.

Assessment

Yes, fully rolled out (to at least 80% of the population)	Implemented in some regions/ municipalities (50-80% of population covered)	No or only experimental (less than 50% of population covered)

Weight
1

SRF P-3.5 Deposit-return systems

Description and relevance
Deposit Return Systems (DRS) generate high capture rates for packaging covered by the system and thus contribute to increase recycling rates. Are there mandatory and/or voluntary deposit-return schemes for packaging in place? And what is the coverage of the deposit-return schemes?

Source
Questionnaire.

Assessment
The assessment is done only for some specific packaging materials and not used in the assessment of other materials nor for the total packaging

SRF P-3.5.1 Deposit-return systems for Aluminium drink cans

Assessment

Mandatory for nearly all drink cans	Mandatory for some or voluntary for nearly all drink cans	No or voluntary for some drink cans

Weight
1

SRF P-3.5.2 Deposit-return systems for Glass drink bottles

Assessment

Mandatory for nearly all drink bottles	Mandatory for some or voluntary for nearly all drink bottles	No or voluntary for some drink bottles

Weight
1

SRF P-3.5.3 Deposit-return systems for Plastic drink bottles

Assessment

Mandatory for nearly all drink bottles	Mandatory for some or voluntary for nearly all drink bottles	No or voluntary for some drink bottles

Weight
1

SRF P-3.5.4 Deposit-return systems for Plastic crates

Assessment

Mandatory for nearly all plastic crates	Mandatory for some or voluntary for nearly all plastic crates	No or voluntary for some plastic crates

Weight
1

SRF P-3.5.5 Deposit-return systems for Wooden packaging

Assessment

Mandatory for nearly all wooden packaging	Mandatory for some or voluntary for nearly all wooden packaging	No or voluntary for some wooden packaging

Weight
1

4 Separate collection systems

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

Description and relevance
Which packaging waste fractions are already collected separately, in which way (convenience for citizens) and what part of the population is covered by separate collection?

Separate collection is the collection where a waste stream is kept separately by type and nature so as to facilitate recovery operations, including preparation prior to recovery. Commingled collection of different waste fractions, in such a way that it does not hamper separation and recovery afterwards, can be regarded as separate collection in this assessment if it is in line with the conditions described in Art. 10(3) WFD. Fractions that are currently often collected commingled in Europe include plastic packaging, metal packaging and beverage cartons, with or without including paper and cardboard; the commingled collection of paper and cardboard with beverage cartons; or other combinations including the already mentioned fractions.

The convenience of a separate collection system for citizens will have an influence on the amounts and quality of waste collected through that system. A study conducted by ACR+ (2019) states that “door-to-door” systems and “bring bank” systems present on average comparable performances, and it seems that both types of collection enable very high performances. It does not necessarily mean that both collection modes would give the same performance in one given territory.

The convenience or service level and coverage of separate collection systems can also be different depending on the character of an area. A remote bring point (e.g. grocery store) could be considered convenient for people living in rural areas as it is part of a regular travel routine, where for people living in cities a bring point would have to be at walking distance in order to have the same level of

convenience. In order to assess the convenience of separate collection systems in a MS, a distinction is made between various types of urbanization[1]: cities; towns and suburbs; and rural areas.

The following categorization is used here to assess the degree of convenience, depending on the degree of urbanization:

	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	H		H	L	L	H		H	L	L	H		H	L
Paper and Cardboard	H	H	H	L	L	H	H	H	L	L	H	H	H	L
Ferrous metals	H		H	L	L	H		H	L	L	H		H	L
Aluminium	H	H	H	L	L	H	H	H	L	L	H	H	H	L
Glass	H		H	L	L	H		H	L	L	H		H	L
Plastic	H	H	H	L	L	H	H	H	L	L	H	H	H	L
Wood	H		H	L	L	H		H	L	L	H		H	L

H = high convenience
L = low convenience

The population coverage is determined using the amount of people living in the different types of urbanized areas (Eurostat).

Source
Questionnaire and/or MS reports on separate collection acc. to Art. 10(6) WFD, due 31/12/2021 (Art. 10(6): By 31 December 2021, Member States shall submit a report to the Commission on the implementation of this Article as regards municipal waste and bio-waste, including on the material and territorial coverage of separate collection and any derogations under paragraph 3)
Eurostat: Household characteristics by degree of urbanization (HBS_CAR_T315)

Assessment
The material specific assessment will consider packaging waste from both household and non-household sources. It is assumed that these sources are of similar size, but if the MS provides information on the shares of household/non-household waste generation, this can be used to modify the weighting factors.
The assessment will be done for the specific packaging materials and summing up the scores of the different materials according to their average share in municipal waste in order to assess this SRF for total packaging.

[1] 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).

For MS which allow derogations from separate collection under Art. 10(3), and as reported according to Article 10(6), the derogations will be considered to create MS specific scores for the assessment on the coverage of separate collection. This is done on a case-to-case basis by the EEA-ETC/WMGE expert team based on evidence provided by the respective MS.

Note: Commission & JRC will start the development of the template for MS reporting according to Art. 10(6) WFD probably at the start of 2021

SRF P-4.1.1 Convenience and coverage of the separate collection system for Paper and cardboard packaging

Assessment

1. Packaging waste from households

>= 80% of the population is covered by high convenience collection points	50 – 80% of the population is covered by high convenience collection points	< 50% of the population is covered by high convenience collection points

2. Packaging waste from non-household sources

Separation at source is mandatory for non-household paper and cardboard packaging waste	Separation at source is not mandatory for non-household paper and cardboard packaging waste

Weight

This SRF gets a total weighting factor of 2 for the overall risk assessment, as separation at source is considered as the most important enabling factor for high recycling rates. The assessment of household waste stands for a weighting factor of one and the assessment of waste from non-household sources stands for a weighting factor of one, giving the factor of 2 in total.

Considerations for the assessment

If the MS provides data on the shares between household and non-household packaging waste generation, these shares can also be used for modifying the weighting of the scores.

SRF P-4.1.2 Convenience and coverage of the separate collection system for Ferrous metals packaging

Assessment

1. Packaging waste from households

>= 80% of the population is covered by high convenience collection points	50 – 80% of the population is covered by high convenience collection points	< 50% of the population is covered high convenience collection points

2. Packaging waste from non-household sources

Separation at source is mandatory for non-household ferrous metals packaging waste	Separate sorting is not mandatory for non-household ferrous metals packaging waste

Weight

This SRF gets a total weighting factor of 2 for the overall risk assessment, as separation at source and collection is considered as the most important enabling factor for high recycling rates. The

assessment of household waste stands for a weighting factor of one and the assessment of waste from non-household sources stands for a weighting factor of one, giving the factor of 2 in total.

Considerations for the assessment
If the MS provides data on the shares between household and non-household packaging waste generation, these shares can also be used for modifying the weighting factor.

SRF P-4.1.3 Convenience and coverage of the separate collection system for Aluminium packaging

Assessment

>= 80% of the population is covered by high convenience collection points	50 – 80% of the population is covered by high convenience collection points	< 50% of the population is covered high convenience collection points

Weight
This SRF gets a weighting factor of 2 for the overall risk assessment, as separate collection is considered as the most important enabling factor for high recycling rates. The main source for aluminium packaging waste is drink cans from households, therefore the assessment will not consider non-household waste unless the MS indicates that non-household sources contribute considerably to aluminium packaging waste generation.

Considerations for the assessment
If the MS provides data on the shares between household and non-household packaging waste generation, these shares can also be used for the weighting of the scores, including also non-household sources to the assessment.

SRF P-4.1.4 Convenience and coverage of the separate collection system for Glass packaging

Assessment
1. Packaging waste from households

>= 80% of the population is covered by high convenience collection points	50 – 80% of the population is covered by high convenience collection points	< 50% of the population is covered high convenience collection points

2. Packaging waste from non-household sources

Separation at source is mandatory for non-household glass packaging waste	Separate sorting is not mandatory for non-household glass packaging waste

Weight
This SRF gets a total weighting factor of 2 for the overall risk assessment, as separate sorting and collection is considered as the most important enabling factor for high recycling rates. The assessment of household waste stands for a weighting factor of one and the assessment of waste from non-household sources stands for a weighting factor of one, giving the factor of 2 in total.

Considerations for the assessment
If the MS provides data on the shares between household and non-household packaging waste generation, these shares can also be used for the weighting of the scores.

SRF P-4.1.5 Convenience and coverage of the separate collection system for Plastic packaging

Assessment

1. Packaging waste from households

>= 80% of the population is covered by high convenience collection points	50 – 80% of the population is covered by high convenience collection points	< 50% of the population is covered high convenience collection points

2. Packaging waste from non-household sources

Separation at source is mandatory for non-household plastic packaging waste	Separate sorting is not mandatory for non-household plastic packaging waste

Weight

This SRF gets a total weighting factor of 2 for the overall risk assessment, as separate sorting and collection is considered as the most important enabling factor for high recycling rates. The assessment of household waste stands for a weighting factor of one and the assessment of waste from non-household sources stands for a weighting factor of one, giving the factor of 2 in total.

Considerations for the assessment

If the MS provides data on the shares between household and non-household packaging waste generation, these shares can also be used for the weighting of the scores.

SRF P-4.1.6 Convenience and coverage of the separate collection system for Wooden packaging

Assessment

Separation at source is mandatory for non-household wooden packaging waste	Separate sorting is not mandatory for non-household wooden packaging waste

Weight

This SRF gets a weighting factor of 2 for the overall risk assessment, as separate collection is considered as the most important enabling factor for high recycling rates. The main source for wooden packaging waste is non-households, therefore the assessment will not consider wooden packaging from household sources in the assessment. However, if the MS provides data on the shares between household and non-household packaging waste generation, these shares can be used for modifying the weighting of the scores, including also household sources to the assessment.

Consideration for the assessment

For wooden packaging it is specified that the amounts of wooden packaging that are repaired for reuse may be taken into account in the calculation of the targets laid down in point (f) (recycling target of 65% by 31 December 2025), point (g)(ii) (recycling target of 25% by 31 December 2025 for wood), point (h) (recycling target of 70% by 31 December 2030) and point (i)(ii) (recycling target of 30% by 31 December 2030) of Article 6(1).

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

Description and relevance
Are there concrete plans to improve the type and coverage of separate collection for the different packaging waste fractions within the next 3 years? This SRF is only relevant for MS that do not score 'green' in SRF P-4.1.

Source
Questionnaire

Assessment
The material specific assessment will consider packaging waste from both household and non-household sources. It is assumed that these sources are of similar size, but if the MS provides information on the shares of household/non-household waste generation, this can be used to modify the weighting factors. The assessment will be done for the specific packaging materials and summing up the scores of the different materials according to their average share in municipal waste in order to assess this SRF for total packaging.

SRF P-4.2.1 Firm plans to improve the type and coverage of separate collection for Paper and cardboard packaging waste

Assessment
1. Packaging waste from households

Firm plans to cover > 80% of the population high convenience collection points	Firm plans to cover > 50% of the population by high convenience collection points	No firm plans to improve the type and coverage

2. Packaging waste from non-household sources

Firms plans to introduce mandatory separate sorting for non-household paper and cardboard packaging waste		No firm plans to introduce mandatory separation at source for non-household paper and cardboard packaging waste

Weight
This SRF gets a total weighting factor of 1 for the overall risk assessment. The assessment of household waste stands for 0.5 and the assessment of waste from non-household sources stands for 0.5, giving the factor of 1 in total.

Considerations for the assessment
If the MS provides data on the shares between household and non-household packaging waste generation, these shares can be used to modify the weighting of the scores.

SRF P-4.2.2 Firm plans to improve the type and coverage of separate collection for Ferrous metals packaging waste

Assessment
1. Packaging waste from households

Firm plans to cover > 80% of the population high convenience collection points	Firm plans to cover > 50% of the population by high convenience collection points	No firm plans to improve the type and coverage

2. Packaging waste from non-household sources

Firms plans to introduce mandatory separation at source for non-household ferrous metals packaging waste		No firm plans to introduce mandatory separation at source for non-household ferrous metals packaging waste

Weight

This SRF gets a total weighting factor of 1 for the overall risk assessment. The assessment of household waste stands for 0.5 and the assessment of waste from non-household sources stands for 0.5, giving the factor of 1 in total.

Considerations for the assessment

If the MS provides data on the shares between household and non-household packaging waste generation, these shares can be used for modifying the weighting of the scores.

SRF P-4.2.3 Firm plans to improve the type and coverage of separate collection for Aluminium packaging waste

Assessment

Firm plans to cover > 80% of the population high convenience collection points	Firm plans to cover > 50% of the population by high convenience collection points	No firm plans to improve the type and coverage

Weight

1

The main source for aluminium packaging waste is drink cans from households, that is why the assessment will not consider non-household waste unless the MS indicates this share impacts the waste generation.

Considerations for the assessment

If the MS provides data on the shares between household and non-household packaging waste generation, these shares can also be used for the weighting of the scores, including also non-household sources to the assessment.

SRF P-4.2.4 Firm plans to improve the type and coverage of separate collection for Glass packaging waste

Assessment

1. Packaging waste from households

Firm plans to cover > 80% of the population high convenience collection points	Firm plans to cover > 50% of the population by high convenience collection points	No firm plans to improve the type and coverage

2. Packaging waste from non-household sources

Firms plans to introduce mandatory separation at source for non-household glass packaging waste		No firm plans to introduce mandatory separation at source for non-household glass packaging waste

Weight

This SRF gets a total weighting factor of 1 for the overall risk assessment. The assessment of household waste stands for 0.5 and the assessment of waste from non-household sources stands for 0.5, giving the factor of 1 in total.

Considerations for the assessment

If the MS provides data on the shares between household and non-household packaging waste generation, these shares can also be used for the weighting of the scores.

SRF P-4.2.5 Firm plans to improve the type and coverage of separate collection for Plastic packaging waste

Assessment

1. Packaging waste from households

Firm plans to cover > 80% of the population high convenience collection points	Firm plans to cover > 50% of the population by high convenience collection points	No firm plans to improve the type and coverage

2. Packaging waste from non-household sources

Firms plans to introduce mandatory separation at source for non-household plastic packaging waste		No firm plans to introduce mandatory separation at source for non-household plastic packaging waste

Weight

This SRF gets a total weighting factor of 1 for the overall risk assessment. The assessment of household waste stands for 0.5 and the assessment of waste from non-household sources stands for 0.5, giving the factor of 1 in total.

Considerations for the assessment

If the MS provides data on the shares between household and non-household packaging waste generation, these shares can also be used for the weighting of the scores.

SRF P-4.2.6 Firm plans to improve the type and coverage of separate collection for Wooden packaging waste

Assessment

Firms plans to introduce mandatory separation at source for non-household wooden packaging waste		No firm plans to introduce mandatory separation at source for non-household wooden packaging waste

Weight

1
The main source for wooden packaging waste is non-households, that is why the assessment will not consider household sources in the assessment.

Considerations for the assessment
If the MS provides data on the shares between household and non-household packaging waste generation, these shares can also be used for the weighting of the scores, including also household sources in the assessment.

5 Extended producer responsibility (EPR) and similar schemes

Extended producer responsibility schemes aim to apply the polluter-pays principle to waste management so that the costs of waste management are borne by the original waste producer. According to the Packaging and Packaging Waste Directive, EPR schemes for all packaging will be mandatory by end December 2024. Producer responsibility schemes will have to meet the minimum requirements laid down in Art. 8(a) WFD. EPR schemes are an important means to finance and create infrastructure for collection and management of packaging waste, and their functioning and design influences the recycling rates of packaging materials.

SRF P-5.1 Coverage of EPR schemes

Description and relevance
The coverage of the EPR system determines the volume of packaging waste for which the EPR system will cover the management costs. For which PW materials is there an EPR or other similar agreements with producers in place and do they cover both packaging waste from households, industrial and commercial sources?

Sources
- Questionnaire
- Study to Support Preparation of the Commission's Guidance for Extended Producer Responsibility Schemes (2020)

Assessment

All main packaging fractions* are covered by EPR schemes, covering household and non-household packaging	All main packaging fractions* are covered by EPR schemes, and at least three fractions are covered by EPR schemes covering household and non-household packaging	Not all main packaging fractions* are covered by EPR schemes OR All main packaging fractions are covered by EPR schemes but none or only one covers household and non-household packaging

*Paper and cardboard, Ferrous metals, Aluminium, Glass, Plastic

Weight
1

Considerations for the assessment
The Single-Use Plastics (SUP) Directive is expected to have a great impact on the use of certain specific items covered by the Directive. Single-use plastic packaging is covered in the SRF on EPR for plastic packaging. However, the SUP Directive focuses on reducing environmental impacts of certain items and does not aim directly to increase recycling. The effects are captured in the existing set of SRFs.

Free-riding may need to be considered in the assessment, as it can affect data quality due to under-reporting of put-on-market packaging, leading to misrepresenting statistics on recycling. A wide-spread free-riding also reduces the coverage of the EPR system.

SRF P-5.2 Fee modulation in EPR schemes for packaging

Description and relevance

Fee modulation is a system with different fees for different packaging, based on e.g. recyclability and choice of material (metals, glass, plastics,…); but also within the material group, such as different fees for different polymers. EPR fees that depend on the recyclability of the packaging create incentives for design for recycling and thus create favourable conditions for higher recycling rates.

Does the EPR system in place apply fees that depend on the recyclability of the packaging in order to create incentives for design for recycling and choice of easily recyclable packaging, and thus create favourable conditions for higher recycling rates (fee modulation)? How far do the fees differentiate between material choices and packaging design **within** the broad packaging material categories (i.e. different types of plastics or discouraging difficult to recycle designs), and/or is recycled content incentivised through the fees?

Waste Framework Directive, Art 8a 4.b) fee modulation

Member States shall take the necessary measures to ensure that the financial contributions paid by the producer of the product to comply with its extended producer responsibility obligations: (…) in the case of collective fulfilment of extended producer responsibility obligations, are modulated, where possible, for individual products or groups of similar products, notably by taking into account their **durability, reparability, re-usability and recyclability and the presence of hazardous substances**, thereby taking a life- cycle approach and aligned with the requirements set by relevant Union law, and where available, based on harmonised criteria in order to ensure a smooth functioning of the internal market

Sources

- Questionnaire

Assessment

The assessment of advanced fee modulation will be based on four criteria:

1. Is recyclability taken into account in fee modulation?
    - Since different types of material and characteristics of packaging have different recyclability, in practice this could be separation between different materials and qualities, such as
        - for plastics between PET and PS, but also for different colours of PET
        - for paper and cardboard between 100% cardboard boxes and laminated drink cartons
2. Is recycled material content taken into account in fee modulation?
3. Are sortability and disruptors for separation considered in fee modulation?
    - In practice this could be a malus for disruptors, such as for
        - labels and caps of other materials, which are not fitted for the recycling technologies of the main packaging
        - a surface print, which disturbs the separation process
        - a sleeve made of another material than the packaging itself
4. Is there a transparent compliance check by the PRO that producers report correctly?

There is fee modulation in at least two of the main packaging fractions* AND fee modulation for one packaging fraction meets all four assessment criteria	At least one packaging fraction* has a fee modulation that meets at least three assessment criteria	No fee modulation OR fee modulation meets less than three assessment criteria

*Paper and cardboard, Ferrous metals, Aluminium, Glass, Plastic, Wood

Weight
1

SRF P-5.3 Material specific EPR assessment

SRF P-5.3.1 EPR scheme for Paper and cardboard packaging waste

Assessment

EPR scheme covering household and non-household packaging, with a fee modulation meeting at least two assessment criteria	EPR scheme covering household and non-household packaging	No EPR scheme or EPR scheme covering only household, industrial OR commercial packaging

Weight
1

SRF P-5.3.2 EPR scheme for Ferrous metals packaging waste

Assessment

EPR scheme covering household and non-household packaging, with a fee modulation meeting at least two assessment criteria	EPR scheme covering household and non-household packaging	No EPR scheme or EPR scheme covering only household OR non-household packaging

Weight
1

SRF P-5.3.3 EPR scheme for Aluminium packaging waste

Assessment

EPR scheme covering household and non-household packaging, with a fee modulation meeting at least two assessment criteria	EPR scheme covering household and non-household packaging	No EPR scheme or EPR scheme covering only household OR non-household packaging

Weight
1

SRF P-5.3.4 EPR scheme for Glass packaging waste

Assessment

EPR scheme covering household and non-household packaging,	EPR scheme covering household and non-household packaging	No EPR scheme or EPR scheme covering only household OR non-household packaging

with a fee modulation meeting at least two assessment criteria		

Weight
1

SRF P-5.3.5 EPR scheme for Plastic packaging waste

Description and relevance
Recycling of plastic packaging waste struggles with hinders related to e.g. material solutions and the presence of disruptors for recycling. For plastic packaging waste, fee modulation is emphasized as a key to better recyclability and recycling rates, therefore the SRF for the EPR scheme for plastic packaging waste requires all four fee modulation assessment criteria for a green score.

Assessment

EPR scheme covering household and non-household packaging, with a fee modulation meeting all four assessment criteria	EPR scheme covering household and non-household packaging, with a fee modulation meeting at least two assessment criteria	No EPR scheme or EPR scheme covering only household, industrial OR commercial packaging

Weight
1

SRF P-5.3.6 EPR scheme for Wooden packaging waste

Description and relevance
Wooden packaging waste originates foremost from non-household sources. Thus, this SRF will only consider the EPR schemes for non-household sources of wooden packaging waste.

Assessment

EPR scheme covering all non-household packaging		No EPR scheme or EPR scheme covering only industrial OR commercial packaging

Weight
1

6 Data quality

SRF P-6.1 Data and quality check

Description and relevance
Is the data and quality check report related to of Article 6a(3) and (8) of Directive 94/62/EC submitted in the format as laid down in implementing decision (EU) 2019/665?

Source
Eurostat.

Assessment

Yes	Yes, but format not fully followed or missing information or Submitted but delayed with 2 months (if quality assessment not available)	No

Weight
1

SRF P-6.2 Verification process used to verify data

Description and relevance
Which verification process(es) as listed in Annex IV in implementing decision (EU) 2019/665 is (are) used to verify the reported data? To validate the accuracy of the statistical data provided by the MS to Eurostat, a number of verification procedures within the national statistical reporting system can be used, e.g. cross-checks with other data sets, time-series checks and whether the process is independently audited or not. The assessment of the quality of the verification procedure of the MS is done by Eurostat and based upon the information provided by the MS in the quality check report.

Source
Eurostat, data and Quality check report (Annex V).

Assessment

High quality verification method	Medium quality verification method	low quality verification or no data quality report submitted

Weight
1

7 Context parameters

These parameters are not considered to be success and risk factors and are not color coded, but are used as context in the overall assessment.

7.1. Economic parameters

Economic parameters influence a Member State's general ability to invest in new infrastructure, enforcement of environmental regulations and acceptance of higher fees for waste services by citizens. Therefore, a weak economy could, but does not have to, hamper the necessary investments

for reaching the recycling target. On the other hand, several MS are eligible for support from EU Cohesion and Structural Funds that can be used by these MS to co-finance investments into separate collection systems, sorting capacities etc. fostering recycling.

7.2. Evolution of packaging waste generation

An increase in packaging waste generation puts additional pressure on the waste management system and might require extension of the waste management infrastructure. The trend in packaging waste generation will be analysed as a context parameter.

7.3. Implementation of recommendations of the previous Early Warning report (2018)

14 MS were identified in 2018 of being at risk to not meet the 2020 recycling target for household and similar waste as defined in the 2008 Waste Framework Directive, and received a number of policy recommendations. As recycling of packaging waste from municipal sources is relevant for meeting the new packaging waste recycling targets, MS that properly followed up on the recommended priority actions are more likely to meet the packaging waste recycling targets.

7.4. Commitment in the European plastics pact

A MS' commitment to the European plastics pact or similar initiatives (e.g. under the Ellen MacArthur Foundation) may influence the performance regarding plastic packaging recycling.

7.5. Waste management plan(s) aligned to requirements in Article 28 WFD and adapted to revised directives

A waste management plan is one of the key tools for authorities to implement the requirements of EU waste legislation to the national, regional and local level within the MS. Non-compliance with the mandatory requirements or not covering all optional requirements of Article 28 WFD signals a risk for not meeting the targets. Information will be based on the study 'Detailed assessment of waste Management Plans' conducted under the authority of the European Commission.