

Targeted stakeholder consultation on the design of EU harmonised waste sorting labels under the Packaging and Packaging Waste Regulation

Fields marked with * are mandatory.

1 Data privacy

Before you proceed, please take a moment to understand how we will use the personal data that you will provide while participating in this survey.

Your participation to this survey is voluntary, and you have the right to withdraw from the survey at any time without any negative consequences. The collected data will be stored securely and will only be accessible to the research team and colleagues from the European Commission based on a need-to-know principle. You can exercise your rights by contacting the Data Controller: JRC-WASTE-LABELLING@ec.europa.eu

The data collected in this survey are treated in accordance with Regulation (EU) 2018/1725 of the European Parliament and of the Council of 23 October 2018 on the protection of natural persons with regard to the processing of personal data by the Union institutions, bodies, offices and agencies and on the free movement of such data (repealing Regulation (EC) No 45/2001).

Please read the data privacy statement for this activity. **To start the survey**, you need to tick the checkbox below, indicating that you have **read and understood** the privacy statement.

I have **read and understood** the privacy statement

[2024-08-05-DPS-WSL-consultation-noTC.pdf](#)

2 Introduction

Before you start

We kindly ask organisations to coordinate internally and to submit **one consolidated feedback per organisation**.

We also suggest to fill out this surveys on your **laptop**, as it is not optimised for mobile phones.

What is this?

This is a **targeted consultation** to gather feedback on design considerations of harmonised material-based

waste sorting labels applied to packaging and waste receptacles in the European Union, as part of the [provisionally agreed Packaging and Packaging Waste Regulation](#).

Who created this?

The **European Commission (Directorate-General for the Environment and Joint Research Centre, JRC)** created this consultation to gather stakeholders' views.

For whom is it relevant?

This targeted consultation is aimed at the European waste management and packaging community, including representatives of workers, manufacturers, retailers, packagers, labellers, government and policy, science and environmental advocates. This includes natural and legal persons involved in waste collection, waste transport, waste sorting, waste treatment, product and packaging labelling, receptacle labelling, product design, product and packaging manufacturing, and consumer organisations. It addresses stakeholders at different organisation levels, including governmental, non-governmental, for-profit, not-for-profit, networks and platforms. The geographical scope is the European Union, recognising that some stakeholders have different scopes, including worldwide, European, European Union, national, local, regional or municipal.

Why the consultation?

The JRC is working with the Directorate-General for the Environment (DG ENV) to develop a technical proposal for EU harmonised labelling specifications. Together with external experts and consultants, the JRC gathers and generates evidence to inform the design of harmonised waste sorting labels. Part of this evidence consists in stakeholders' views on specific planned characteristics of the waste sorting labels. This targeted stakeholder consultation aims at gathering views and feedback on key aspects in a systematic way, so that stakeholders can express their views and inform the design of certain characteristics of the planned harmonised waste sorting labels.

What does this consultation provide?

On the following pages, this EU Survey will provide key background information on 1) the provisionally agreed Packaging and Packaging Waste Regulation, which defines key characteristics of the planned EU harmonised waste sorting labels, 2) the JRC-led project to design key aspects of these labels, and 3) the current reflections on and status of the system and visual design aspects of the EU harmonised waste sorting labels. The specificity and concreteness of some information will vary, depending on the status of the ongoing work.

What is requested of you?

This survey invites you to provide feedback on certain aspects of the current state of work regarding the EU harmonised waste sorting labels. This feedback can take the form of views, perceptions, opinions, experiences, knowledge, evidence, suggestions and other forms. Whenever possible, the input shall be based on solid reasoning, (scientific) evidence, and/or experiences.

Specifically, you will be invited to provide input in written form on specific points. Please be as precise, clear and specific as possible, focusing on the key points as explicitly as possible. If there are any points

you would like to address but that are not explicitly asked about, you will have the opportunity to provide general feedback at the end of the survey. In some places, we will ask specific questions with pre-set answer options, where we ask you to provide your answer according to your views. If applicable, we will also give you the opportunity to provide further details to add context to your answers.

When and for how long can I participate?

This targeted consultation is **open from 02/09/2024 until 30/09/2024, 23:59 UTC+1**. Responses will not be accepted after the deadline. This survey may take some time to complete, depending on the amount of information you can or want to share. You can pause and save the survey and continue at a later stage, or skip certain parts. Please remember to **save your input** using the dedicated function if you fill in the survey in multiple sessions.

How will the information gathered in the survey be used?

We request stakeholder insights to inform the ongoing work of the Joint Research Centre. The goal is not to gather quantitative views and preferences to base decisions on. Rather, we predominantly request qualitative information that exposes diverse viewpoints, provides additional information and knowledge, and highlights aspects that we may have missed. While we will evaluate and consider the views and preferences provided by participating stakeholders, they will not directly determine the decisions that have to be made, as these require various types of information complementing stakeholder input. Yet, we highly value the various viewpoints and insights that stakeholders can provide!

2.1 Show Frequently Asked Questions (FAQs)

- Show
- Hide

3 Background

EU rules on packaging and packaging waste

EU rules on packaging and packaging waste cover both packaging design and packaging waste management. They aim to deal with the increasing quantities of packaging waste, which cause environmental problems. They also aim to remove barriers in the internal market – caused by EU countries adopting different rules on packaging design, restrictions or labels.

EU rules on packaging cover all types of packaging placed on the European market and the resulting packaging waste. This means all materials and packaging, including industrial, commercial, household and packaging from any other sectors.

For more information, see [Packaging waste - European Commission \(europa.eu\)](https://european-council.europa.eu/media/en/press-communications/infographic/infographic-packaging-waste-2024.pdf).

Past and related policies

Directive 94/62/EC on packaging and packaging waste aims to harmonise national measures

concerning the management of packaging and packaging waste and to improve the quality of the environment by preventing and reducing the impact of packaging and packaging waste on the environment. The latest amendment of Directive 94/62/EC by **Directive (EU) 2018/852** contains reinforced measures aimed at preventing the generation of packaging waste, and promoting the reuse, recycling and other forms of recovering of packaging waste, instead of its final disposal, thus contributing to the transition towards a circular economy.

For more information, see [Packaging and packaging waste | EUR-Lex \(europa.eu\)](#)

The current focus: provisionally agreed Packaging and Packaging Waste Regulation

On 30 November 2022, the Commission proposed to revise the Packaging and Packaging Waste Directive. This review is aimed at contributing to reaching the objective of the [European Green Deal](#) and the [new circular economy action plan](#) to ensure that “all packaging on the EU market is reusable or recyclable in an economically viable way by 2030”. It will also contribute to the commitment of the [2018 Plastics Strategy](#) to ensure that “by 2030, all plastics packaging placed on the market can be reused or recycled in a cost-effective manner”.

The **provisionally agreed Packaging and Packaging Waste Regulation** keeps the existing packaging waste recycling rate targets: 65% by weight by the end of 2025 and 70% by weight by 2030, with specific sub-targets for certain packaging materials. It also keeps the obligation of Member States to establish producer responsibility schemes (EPR) for all packaging by the end of 2024 while providing for a further harmonisation of and additional requirements related to EPR. In addition to fully harmonising the requirements for packaging design in order to be allowed to be placed on the EU market, with obligations placed directly on the manufacturers, the new Regulation requires the introduction of **harmonised labelling of packaging and waste bins to facilitate correct consumer disposal of packaging waste**.

For more information, see [provisionally agreed Packaging and Packaging Waste Regulation \(PPWR\)](#).

Waste sorting labels as described in the PPWR (Articles 12 and 13)

A key measure of the [provisionally agreed Packaging and Packaging Waste Regulation](#) to bring about change on the ground is **harmonised labelling of packaging and waste bins to facilitate correct consumer disposal of packaging waste**.

The provisionally agreed Packaging and Packaging Waste Regulation outlines requirements for EU harmonised waste sorting labels in **Article 12 for packaging** and **Article 13 for waste receptacles**. Specifically,

1. the harmonised WSLs **must indicate waste materials** (as opposed to waste destinations). For example, instead of indicating where packaging needs to be disposed of with a label indicating “plastic waste bin” or “yellow bin”, the label must indicate the material “plastic”;
2. the harmonised WSLs need to be **displayed both on packaging and on waste receptacles**. Thus, they need to communicate to users how to dispose of waste by establishing visual correspondence

between labels applied to both packaging and receptacles. This approach is identical to the Nordic Pictogram scheme (see section 5 of the [JRC report “Setting the scene for harmonised waste-sorting labels in the European Union”](#)).

Furthermore, an EU harmonised waste-sorting labelling scheme **needs to work for different underlying separate waste collection schemes (SWC) that exist in Member States and/or regions within Member States.**

These specifications explain why the **Unified Nordic pictogram system for recycling** seems as an appropriate starting point for the EU harmonised waste sorting labels as it is the existing system that most closely matches these requirements so far.

Other relevant specifications in Article 12 of the provisionally agreed PPWR and the JRC’s understanding of those are outlined in the following table.

Note that the information in the column ‘description’ provides a plain-language description of the legal text in the original formulation of the PPWR. It is provided for the sole purpose of clarity and does not constitute a legal interpretation or re-wording of the provisionally agreed legal text.

Please note that the original formulation might deviate slightly from the online version, as it includes some future yet not public changes according to legal language revisions.

Table 1 - Provisional PPWR requirements for waste sorting labels

Nr.	Description	Original formulation
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Certain types of **compostable packaging**, in particular

- permeable tea, coffee and other beverage bags,
- discardable soft after-use system single serve units with tea, coffee or other beverages, to be used and disposed with the product,
- non-permeable tea, coffee or other beverage system single-serve units intended for use in a machine and used and disposed with the product, made of other materials than metal,
- sticky labels on fruit and vegetables,
- lightweight and very lightweight plastic carrier bags,
- other packaging already required to be compostable,

shall bear a label that indicates that the material is **compostable, not suitable for home-composting**, and shall **not be thrown away in nature**.

Transport packaging (except for e-commerce) **and packaging that is part of a Deposit and Return System (DRS)** are *exempt* from the waste sorting label.

Economic operators *can* add a **QR code or other type of digital data carrier** to the packaging that contains information on how the packaging shall be sorted by consumers.

The labels and complementary digital information carrier must be **placed, printed or engraved and they must be visible, clearly legible and firmly** applied to the packaging to prevent erasure.

For the packaging referred to in Article 9(1) and, where applicable, Article 9(2), the label shall indicate that the material is compostable, it is not suitable for home-composting, and compostable packaging shall not be thrown away in nature. Article 9 refers to *compostable packaging*. Article 9(1) refers to permeable tea, coffee or other beverage bags, or soft after-use system single serve units that contain tea, coffee or another beverage, and which are intended to be used and disposed of together with the product and sticky labels attached to fruit and vegetables. The labels shall indicate that these are industrially compostable or, when required by the Member States, are suitable for home composting. Article 9 (2) refers to compostable packaging, specifically non-permeable tea, coffee or other beverage system single-serve units intended for use in a machine and which is used and disposed of together with the product , composed of material other than metal, very lightweight plastic carrier bags and lightweight plastic carrier bags and other packaging for which Member States already required that they be compostable before the date of application of this Regulation .

With the exception of e-commerce packaging, this obligation does not apply to transport packaging or to packaging that is subject to a deposit and return system.

In addition to the harmonised label referred to in this paragraph, economic operators may place a QR code or other type of standardised, open, digital data carrier on the packaging that contains information on the destination of each separate component of the packaging in order to facilitate consumer sorting.

The labels “and the QR code or other type of standardised, open, digital data carrier [...] shall be affixed, printed or engraved visibly, legibly and firmly on the packaging, so that they cannot be easily erased [...].”

5	Information from waste sorting labels shall be made available before the purchase during online purchases.	The information shall also be available to end-users before the purchase of the product through online sales.
6	If the primary packaging is too small, the label needs to be attached to the grouped packaging. If this is not possible or if it is necessary to make the information available in a non-discriminatory format, the labels must be provided in an electronically readable code or other type of data carrier.	Where that is not possible or not warranted on account of the nature and size of the packaging, they shall be affixed to the grouped packaging. Where that is not possible or not warranted on account of the nature and size of the packaging or where it is relevant to provide for non-discriminatory access to information for vulnerable groups, particularly visually impaired persons, labels [] shall be provided via a single electronically readable code or other type of data carrier.
7	The language of the labels must be in one or more easily understandable languages determined by the Member State in which the packaging is to be made available.	Regarding the language of the labels: The information contained in the labels [] and QR code or other type of digital data carrier shall be made available in one or more languages which can be easily understood by end users, as determined by the Member State in which the packaging is to be made available on the market.
8	Labels for (certain types of?) composite packaging need to exist.	The labels need to take into account the specificities of composite packaging
9	On receptacle and on-product packaging labels will match , except for packaging covered by deposit and return systems.	The labelling for receptacles shall correspond to the labelling for packaging as referred to in Article 12(6) with the exception of labelling for packaging covered by deposit and return systems. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 65(3)

3.1 Show more information on past, present and future work of the Joint Research Centre regarding this project

Show more

Past, present and future work of the Joint Research Centre

Past work

We outline below relevant work that has been conducted as part of the project to create EU harmonised waste sorting labels. We do not outline all the work done at the JRC that relates to waste sorting and waste management. Instead, we focus on the work done specifically on waste sorting labels. The list below includes a brief description of the work and links to it (either online or attached).

- The [JRC report “Separate collection of municipal waste: citizens’ involvement and behavioural aspects”](#) outlines the scientific literature exploring the role of citizens in separate waste collection, particularly the role of motivation, ability, and opportunity. Additionally, it discussed potential interventions to increase separate waste sorting and how these interventions address these factors.
- The [JRC report “Behavioural insights for waste-sorting labels in the European Union”](#) highlights learnings for the optimal design of separate waste collection labels based on the behavioural science literature. It presents key elements and principles of label design that should be considered.
- The JRC has conducted **participatory design workshops with key stakeholders** to inform its work. The first workshop aimed to build the group, introduce the project, and generate understanding of the situations and challenges related to waste sorting labels in the EU. It identified key topics, insights, and characteristics related to designing EU harmonised labels and identified key elements for the second workshop. For some background information, see [Harmonising EU Waste Sorting Labels: The Expert Workshop Series - European Commission \(europa.eu\)](#)
- The JRC has consulted stakeholders regarding **common waste sorting practices and existing waste labelling schemes** in the EU Member States. For more information, see [Harmonising waste sorting labels across the EU \(europa.eu\)](#).
- The [JRC report “Harmonised labelling of waste receptacles with matching product labels”](#) analyses the impacts of harmonising the labelling of waste receptacles to specify which types of waste they can collect.

Ongoing work

- The draft [JRC draft report “Setting the scene for harmonised waste-sorting labels in the European Union”](#) presents packaging waste statistics from the EU, analyses five key waste sorting labels from the EU, presents data on EU attitudes towards waste sorting, conceptual considerations of the consumer waste sorting process, and insights from a waste stakeholder survey, complemented by initial considerations of a material-based waste sorting labelling system applied to countries with varying separate waste collection schemes and consumer practices.
- The [Country sheets](#) outline country-specific aspects related to separate waste collection in the EU. Specifically, they present key statistics on packaging waste, sorting practices, colour-waste associations, and collection practices, as well as existing packaging and receptacle labels based on stakeholder input. The reliability of these insights is limited and is complemented internally using data from the EEA early assessment reports which contain information on separate waste collection in all EU Member States.
- Currently, the JRC and contractors are fielding a **consumer survey** to explore the relevance of specific label elements (use of colours, colour matches and mismatches between labels and bins, presence of other labels, use of text indicating the material, component pictograms indicating which material labels belong to which packaging components) and characteristics of packaging (specifically, number of packaging components) with respect to how well the labels are noticed and

understood by consumers. It also enquires about which colours respondents associate with which waste fractions, how consumers usually separate their waste at home, consumer perceptions and preferences relevant to waste sorting and waste sorting labels, such as perceptions of existing waste sorting labels, preferences regarding waste sorting label design, motivation, abilities, and perceived opportunities to sort waste correctly, common usage of QR codes, perceived social norms, etc. The survey will be conducted in 21 Member States with 800 participants per Member State.

Future work

- In the fall of 2024, contractors of the JRC will provide a first prototype of waste sorting labels to be used as part of 12 consumer workshops to be conducted in 6 Member States. These workshops will use participatory design workshops to further develop the label prototypes based on the gathered evidence. Further refinements of these prototypes will take into account evidence generated in previous steps.
- A second prototype will be tested in behavioural experiments against a suitable baseline. The experiment will be conducted in 11 Member States with 1000 participants per Member State.

Graphical overview

Figure 1 below provides an indicative outline of the planned work.

**EU HARMONISED WASTE SORTING LABELLING
INITIAL PLANNING & STEPS**

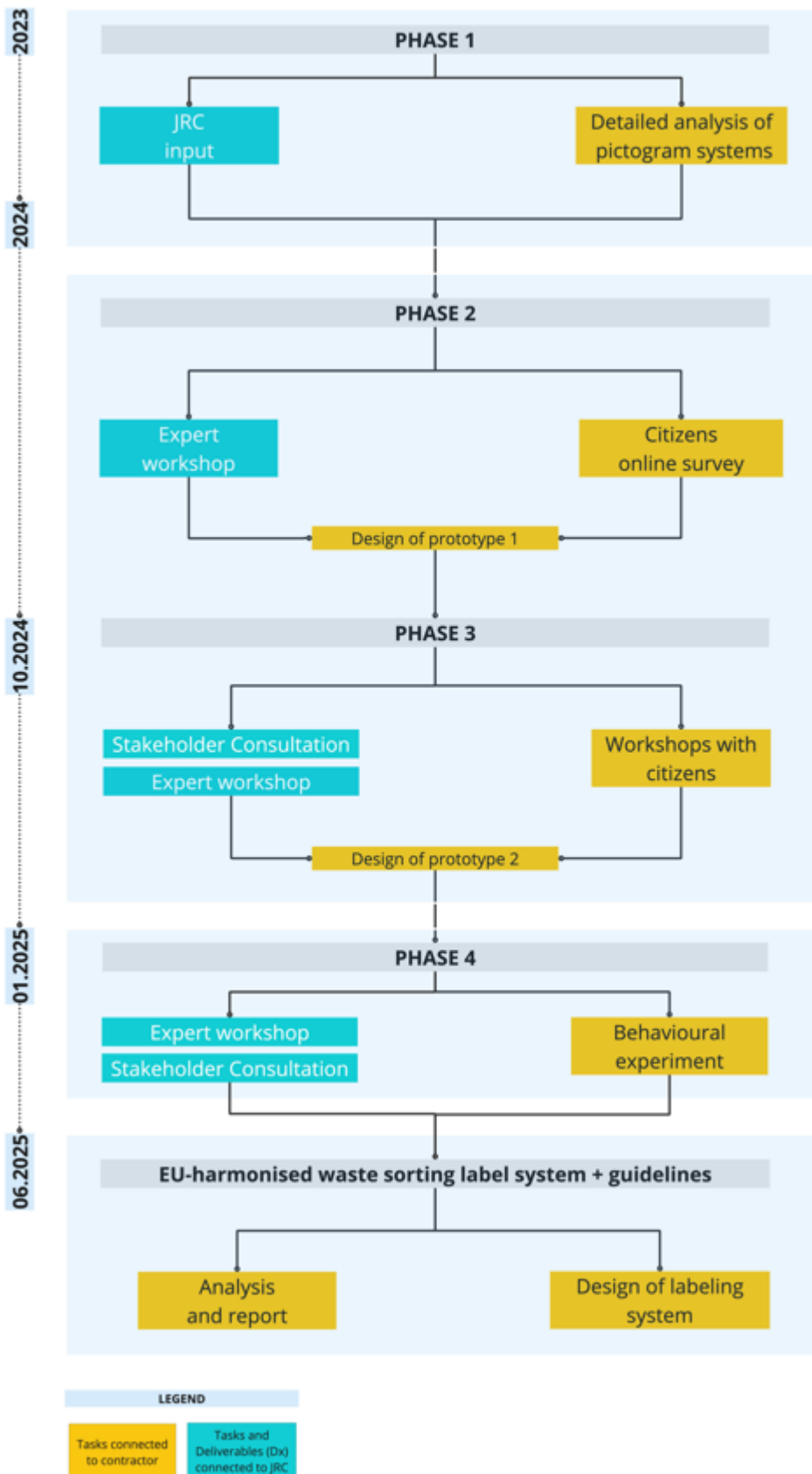


Figure 1: Overview of the process for the development of EU harmonised waste sorting labels

3.2 Desired input from stakeholders

If you have any **feedback regarding the provided materials, the main principles outlined in the PPWR**, particularly material-based labels and informing consumers about waste separation rules by establishing visual correspondence between on-pack and on-receptacle labels, but also the other aspects mentioned in the table, please provide them here. Please note that we are working on the scientific process and have no influence on the broader legislation or regulation. Please be as precise, clear and specific as possible in your answer.

4 Stakeholder information

Before you proceed, please provide us with your **personal contact details**.

* 4.1 What is your **first name**?

Rafael

* 4.2 What is your **last name**?

Basciano

* 4.3 What is your **E-Mail address**?

rafael.basciano@fead.be

* 4.4 What is your **country of residence**?

Belgium

We would also like to know more about the **organisation or association** you are working for. Please answer the following questions:

* 4.6 What is the **name of your organisation or association**?

FEAD

* 4.7 Which of the following best describes the **focus of your organisation or association's work?** *[Multiple selections are possible]*

- Consumer organisation
- Packaging design
- Packaging labelling
- Packaging manufacturing
- Product design
- Product labelling
- Product manufacturing
- Receptacle labelling
- Waste collection
- Waste management
- Waste policy
- Waste sorting / recycling
- Waste transport
- Waste treatment
- Other (please specify)*

* 4.9 What best defines **your role in your organisation or association?** *[Multiple selections are possible]*

- Designer
- Politician / Policymaker
- Production or operational manager
- Marketing or sales manager
- Public, international or EU legal affairs manager
- Responsible for communication
- Senior manager
- Technical expert
- Other (please specify)*

* 4.11 Which of the following **actors or interests do you or your organisation or association affect(s) or represent(s)?** *[Multiple selections are possible]*

- Consumers
- Environment
- Government / Policy
- Labels and brands
- Product manufacturers
- Packaging manufacturers
- Retailers
- Suppliers
- Utilities
- Workers
- Science / research
- Other (please specify)*

* 4.12 Please specify

Waste management private sector

* 4.13 What best describes the **type of your organisation or association**? *[Multiple selections are possible]*

- For-profit
- Governmental
- Network or association
- Non-governmental
- Not for profit
- Other (please specify)*

* 4.15 What best describes the **level of operation** of your organisation or association?

- Europe (EU and other countries, including UK and EEA countries)
- European Union
- Local / Regional
- Municipal
- National
- Worldwide
- Other (please specify)*

* 4.17 In which **country or countries** do(es) your organisation or association operate? *[Multiple selections are possible]*

- Austria
- Belgium
- Bulgaria
- Croatia
- Cyprus
- Czechia
- Denmark
- Estonia
- Finland
- France
- Germany
- Greece
- Hungary
- Ireland
- Italy
- Latvia
- Lithuania
- Luxembourg
- Malta
- Netherlands
- Poland
- Portugal
- Romania
- Slovak Republic
- Slovenia
- Spain
- Sweden

EU

Other (please specify)

* 4.18 Please specify

United Kingdom, Norway

4.19 Have you or your organisation **provided input to any previous steps of this particular work on waste sorting labels** in the European Union?

Yes

No

I don't know

4.20 In what context?

JRC Survey - Information on waste sorting systems and labels

4.21 Please provide **any other information** on you or your organisation / association that you think we should be aware of.

FEAD is the European Waste Management Association that represents the private waste management and resource industry across Europe.

Our members are national waste management associations covering 19 countries in Europe, including Norway and the UK. They represent about 3,000 companies with activities in all forms of waste management.

Our companies have an approximate 60% share in the household waste market and handle more than 75% of industrial and commercial waste in Europe. Their combined annual turnover is approximately € 75 billion.

These companies employ over 320,000 people who operate around 2,400 recycling and sorting centres, 1,100 composting sites, 260 waste-to-energy plants and 900 controlled landfills.

5 EU harmonised waste sorting labels as defined in the PPWR

EU harmonised waste sorting labels

In this section, we ask your input on central aspects of the EU harmonised waste sorting labels, specifically regarding their

1. **system** design (including definition of the granularity and future proofing the system), and
2. **visual** design.

We will provide more information in the respective sections.

Broadly, **system design** here refers to the governing rules, principles, and relations between the waste

sorting labelling systems' components when different users interact with the labels. This includes:

- the **definition of the granularity** of waste sorting labels, i.e., the distinct packaging materials for which material waste sorting labels will be necessary, and
- considerations regarding the **future evolution** of the waste sorting labels and underlying materials and sorting practices.

Broadly, **visual design** here refers to the harmonised graphic design of salient, understandable and actionable waste sorting labels. The labels must be placed, printed or engraved and they must be **visible**, **clearly legible** and **firmly applied** to prevent erasure, both on packaging and waste receptacles.

6 System design

The EU harmonised waste sorting labels will indicate **materials** and be **applied to packaging and waste receptacles** (bins, bags, containers, etc.).

We outline below

1. a **proposed granularity** for waste sorting labels as a starting point,
2. **considerations regarding challenges given future changes** in packaging waste materials and separate waste collection rules.

Granularity considerations

One question regarding the EU harmonised waste sorting labels revolves around the (number of) packaging materials for which material-based waste sorting labels will be required. For this decision, we mainly rely on two assumptions:

1. **Waste materials are defined the same way in all countries:** plastic will be plastic in every country, and flexible PET has the same definition **regardless** of the country. More generally, it means that “plastic A” and “plastic B” will be **equally acknowledged** in two countries, even for a country that **commingles** these types of plastics (i.e. collects them together in the waste collection system) and labels them simply as “plastic” (considered as an encompassing “plastic A” and “plastic B”). Essentially, countries will not differ with respect to how they define
2. **Waste destinations, including the number of receptacles, and rules and practices regarding the commingling and separation of waste materials, differ between and within countries.** Countries and regions have different separate waste collection schemes. For instance, some commingle plastics and paper/cardboard, while others collect each separately. Importantly, this heterogeneity exists even *within* some regions within a country might separate and commingle waste materials differently. It is also reasonable to assume that waste sorting practices frequently differ from instructions, i.e., how people sort their waste differs from how they should sort their waste due to various types of reasons (motivations, skills, infrastructure, etc).

These assumptions raise questions regarding the granularity of a harmonised waste sorting labelling system. An **example**:

- Assume consumers in Country Y must separate and “plastic B” (e.g. soft plastic), while consumers in Country X must not, but instead commingle them in one bin. Note that although we will refer to countries here, this applies also to regions within countries, etc.
- Thus, country Y requires two labels, one to indicate “plastic A” and one to indicate “plastic B”. One receptacle would bear the “plastic A” label and another the “plastic B” label. In country X, these labels would strictly speaking not be needed, as both types of plastic are collected in the same receptacle and both types of plastic are just treated as “plastic” in general. Thus, country X would only require a “plastic” meta-label applied to products made of plastic A and plastic B, and to the respective receptacles. Figure 2 below shows this situation.

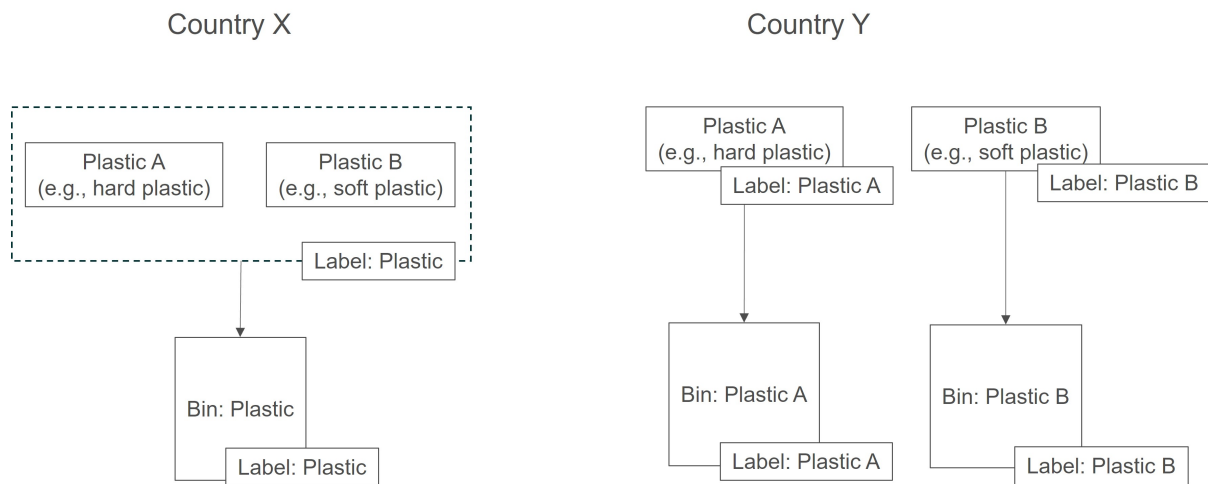


Figure 2: Conceptual representation of a material-based matching labels in a country that commingles hard and soft plastics (country X) and a country that separates both types of plastics (country Y), with country-specific granularity.

A **downside to this approach** of country- or region-specific labelling is that products labelled according to country Y standards (i.e. “plastic A” and “plastic B” labels) may not be properly understandable in country X, and vice versa. Products labelled “plastic” from country X would not tell consumers whether they should put them in the bin for "plastic A" or “plastic B” in country Y. Alternatively, packaging would need to bear all labels used in countries X and Y, i.e., 'plastics' for Country X and either 'plastic A' or 'plastic B' for Country Y. This could lead to information overload for consumers and would not optimise the space used for waste sorting labels on packaging.

The identified approach to deal with this is that **all countries use the same granularity of labels, and the adequate granularity is defined based on reasonable granularity**, most likely the finest granularity among EU member states. This means that even if country X commingles both types of materials in the same bin, it would have to use labels differentiating between the two, both on packaging and on receptacles, because country Y differentiates between them. That way, product and receptacle bins in both countries are identical. What will differ between both countries is which labels will be attached to the respective bins. In country Y, the bin for “plastic A” will have the label for “plastic A”, another bin for “plastic

B” will have the label for “plastic B”. Country X, which commingles both, will have both labels on a single bin. Importantly, the labels on packaging remain the same irrespective of the country in which the packaging was sold, and they should work in both countries. Figure 3 below shows this situation.

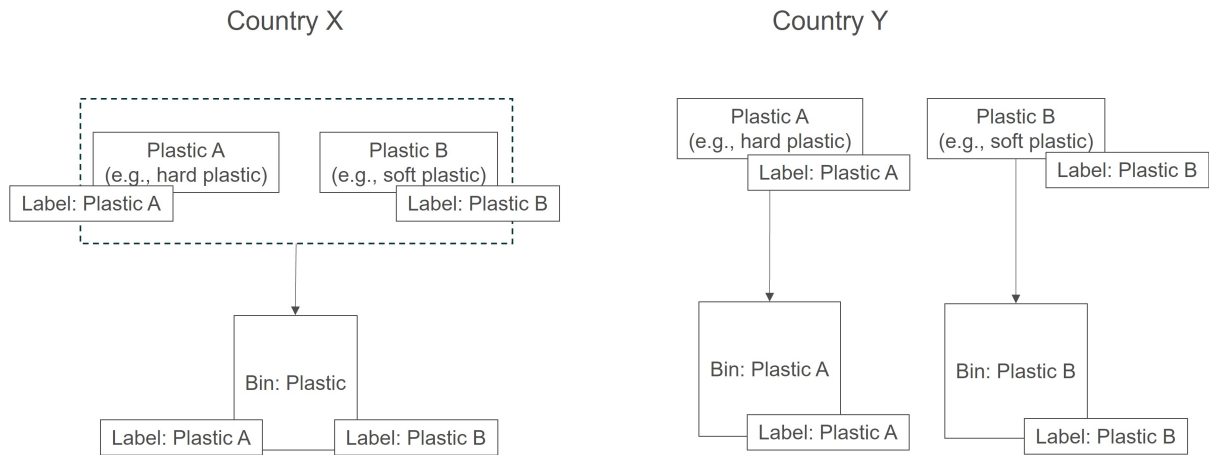


Figure 3: Conceptual representation of material-based matching labels in a country that commingles hard and soft plastics (country X) and a country that separates both types of plastics (country Y), with shared granularity.

Furthermore, waste materials could be grouped into categories that bear a meta-label (such as “plastic” for “soft plastic” and “hard plastic”). Such categories can, in principle, be identified via

1. **pictograms** (such as the plastic labels with a hard plastic bottle and soft plastic bag in the Nordic pictogram scheme, see Figure 4 below, circled in red), and/or
2. **colours** that indicate a specific category of waste materials (such as the colour purple for every type of plastics in the Nordic pictogram scheme, see Figure 4 below, circled in red).



Figure 4: Sample labels from the Nordic pictogram scheme

Desired input from stakeholders

Please reply to the following points. You do not have to reply to all of them. Please be as precise, clear, and specific as possible in your answer. Please provide reasoning and/or evidence whenever possible.

6.1 What are your **thoughts regarding the general principles** outlined above? Do you agree or disagree with certain aspects, do you see shortcomings, etc.? Currently, we lean towards the approach outlined in Figure 3 as we need to ensure full harmonisation of the labelling systems and that labels work consistently. Do you see any major downsides or upsides? Do you see any alternatives that we may have missed?

This approach seems to be the most rational one, aligning the granularity of the labels to the "most granular" country/region and then adapting the bin labels in the country/region based on local collection/sorting practices.

However, we would caution that labels must remain simple and not too diverse to ensure clarity for the end user and the efficiency of separate collection. Therefore, the level of granularity needed to ensure this simplicity and efficiency must be carefully assessed.

Some countries in Europe, including France, have implemented comingled collection of all recyclable packaging. Therefore, there is a risk of over-labelling (eg up to 4 labels on one single waste bin) for these countries. Profusion of labels may further confuse the sorting instructions: the system must remain simple and intuitive to avoid disrupting the sorting habits.

It is also important to note that not all waste is collected in rigid containers with easily accessible labels. For example, in the Brussels-Capital Region in Belgium, household waste is collected by door-to-door collection directly in trash bags, without a rigid container being involved most of the time. It should be noted that the final consumer of the packaging thus has no visual access to the labels on the waste receptacle when disposing of his packaging waste, and that the number of final consumers who spend the time necessary to understand the separation rules by reading and memorising the labels on the trash bags may be limited. This example shows that even if clear and comprehensive harmonised labels were introduced, they would not replace large-scale communication and awareness campaigns to make citizens aware of local segregation rules.

6.2 **Which packaging materials are separately collected** by consumers in the country/region/municipality you are most familiar with? Are there any differences between official requirements and common practices?

Please note that each line correspond to packaging materials that are separately collected together. If a packaging material appears in several lines, it means that there are some regions in the country where the separate collection practices are different, and the packaging material can be separately collected in different streams (example: in France, paper and cardboard can be separately collected alone in some regions, or comingled with other packaging such as metal and plastics in other regions).

Ireland

Beverage containers

Glass

Metal, Paper, Cardboard, Plastics

France

Glass

Metal, Paper, Carboard, Plastics, Wood

Biowaste

In France, since the 1st of January 2023, all household recyclable packaging are collected together (paper, carboard, plastic, metals, wood, ...) over all the national territory with the exception of glass which is collected separately. Also, since the 1st of January 2024, biowaste is collected separately. We have a four bins : glass ; all other recyclables than glass, biowaste and residuals.

Regarding C&I packaging waste, the "7-stream" decree mandates the separate collection of 7 different waste streams : paper/cardboard, metal, plastic, glass, wood, mineral waste, plasterboard + biowaste.'

Germany
Plastics, Metals, Composite Packaging
Paper, Cardboard
White Glass
Brown Glass
Green Glass

Belgium
Plastics, Metal, Cartons
Paper, Cardboard
White glass
Colored Glass

6.3 Are you aware of relevant regional (or cultural) **differences in waste sorting practices**? How could they impact the effectiveness of EU harmonised waste sorting labels?

NA

6.4 What concerns do you have regarding the **granularity** (that is, number of material labels), specifically regarding the practicality of the labels or understandability for different stakeholders (such as producers, waste management, and consumers)? *In your reply, please, focus on work ahead and not on any changes of the legal text of the PPWR, which are currently no longer possible.*

As far as we know, the key issue with these labels is that they must be understandable to consumers, as they are the ones who will have to read them correctly in order to place the waste packaging in the correct waste container.

In this context, the level of granularity, and therefore the number of labels, must be important enough to accommodate all the different selective collection systems in Europe, while remaining as simple as possible to avoid multiple specific labels and confusion for the consumer. Indeed, the consumer may not understand that these labels must be "useful" for all citizens in Europe, and not just for his/her specific case ("why should we have different label for plastic A and plastic B, when in my country/region they already go in the same bin").

As a waste management association, we do not see any practical problems with the implementation of these labels and their granularity, as long as they are understandable enough for consumers and are effectively implemented.

6.5 What are your thoughts regarding **country-specific packaging**? Specifically, considering that the provisionally agreed Packaging and Packaging Waste Regulation states the **language of the labels, if any**, must be in one or more easily understandable languages determined by the Member State in which the packaging is to be made available.

Packaging is usually developed at country level, for marketing matters. It seems important to adapt the language of the labels to the country national language to ensure clarity and that the sorting instructions are well understood by the end consumer.

6.6 What are your views on the potential role of **digital solutions, such as QR codes**, in providing supplementary information to consumers, and what kind of information (e.g. cleaning and preparation of materials/components) should it contain?

We must not think that allowing the end-user to access the information is the same as giving the information directly to the end-user.

In this respect, QR codes can be useful for end-users who are unsure about the separate collection of a waste packaging and who would like to easily access information on how to separate the packaging and how to prepare the packaging for valorisation. Clear and simple information on appropriate separation (which bin to use) and how to prepare the packaging (cleaning, separation of packaging materials) could be of interest if it improves the quality and purity of waste streams for further recovery. Such information should not be provided through additional QR codes, which only a minority of the consumers would look at, but such information should be provided directly to the consumer (on the packaging).

However, QR codes are definitely not the key answer to ensuring good waste segregation. The number of end-users who will scan the QR code on the waste packaging before throwing it away to ensure that they have thrown it away in the right place is probably a minority. Well chosen labels and local public awareness campaigns remain the essential element to ensure good waste segregation.

6.7 What are your views on ways to categorise / group waste materials into **meta-categories (for example, different types of plastic into “plastic”, “paper & cardboard” for paper and cardboard, etc.)**? How would you visually identify these categories, using colours and/or dedicated pictograms?

Categorisation in meta-categories could be useful for countries where the finer categories are not needed. For example, for all the countries where distinction between plastic A and plastic B is not made, then the meta-category plastic could be used.

However, colour codes for meta-categories could be confusing as the colours of waste receptacles are not the same from one region/country to another and the colours of the labels cannot harmoniously match the colours of the waste receptacles across Europe. In this respect, the inclusion of colour codes for meta-categories could make it more difficult for the final consumer to understand which waste receptacles should be used to dispose of the packaging.

6.8 Which potential challenges do you foresee in **implementing and applying** the new harmonised labels on waste **receptacles** (e.g., on public bins), especially for waste management facilities?

Implementation of the harmonised labels on waste receptacles does not seem to represent a big challenge, as long as it does not involve implementing universal bin colours, which would be very problematic as people have had their household bins for decades and know their own bins.

The new harmonised labels for waste containers must be easy to implement, either by affixing stickers with new codes to existing waste receptacles (e.g. private and public bins) or by allowing a certain transition period for the replacement of existing waste receptacles on the market with older labels (e.g. trash bags).

6.9 Which potential challenges do you foresee in **implementing and applying** the new harmonised labels on **packaging**, e.g. for packaging producers and goods manufacturers?

NA

6.10 What **guidance** do you expect to receive from the EU, national governments, or other actors to facilitate the transition to and application of EU harmonised waste sorting labels?

As discussed, for the sake of good implementation and effectiveness of these EU sorting labels for hazardous waste, the main stakeholder to receive guidance must be the final consumer. The final consumer is the key actor to follow and implement local sorting instructions and must be the main target of EU and national government guidance.

The final consumer must be aware of these new labelling rules and how to use them to comply with local sorting requirements. In this respect, local authorities need to implement an awareness campaign adapted to their population and to their local sorting requirements and waste collection systems. EU and national guidelines for local authorities on how to run an effective awareness campaign on these new labels, with some practical examples and pre-designed communication kits, could be useful to ensure a harmonised and efficient implementation of these awareness campaigns and, consequently, a harmonised and efficient implementation of the labels. A specific budget needs to be foreseen for these guidelines and awareness campaigns.

Other operators involved in this transition, such as the waste management service providers (especially linked to the implementation of the waste receptacles labelling) or the municipalities, must also receive adequate guidance on how to implement the new harmonised labels on the waste receptacles.

6.11 Do you have any **other** information or suggestions to complement the above information?

NA

7 Proposed granularity

An EU harmonised WSL system requires defining a minimum set of waste materials to be labelled (that is, its granularity). There are different **starting points to define the set of waste materials for which labels are needed**.

1. A **stocktaking exercise** in which stakeholders indicate the respective granularity, i.e., the distinct types of waste collected. This approach is limited by the quality and comprehensiveness of data we receive.
2. **Annex II of the provisionally agreed PPWR**. The Annex provides two tables with packaging materials, types, and categories, see pages 276-280 in the Annex of the provisionally agreed packaging and packaging waste regulation). However, this is likely too fine. Since consumers do not

separate between 6 to 13 types of plastic (as this is neither necessary, nor possible due to physical constraints), there is no need to have material labels for so many of these.

3. The available packaging pictograms from the design guidelines for packaging of the [Unified Nordic pictogram system for recycling](#) (see with sample labels from the Nordic pictogram scheme on the previous page). It also defines 10 meta-categories (paper, glass, cardboard, metal, plastics, residuals), see Figure 5 below. Note that these may vary according to each country using the Nordic pictogram scheme.



Figure 5: Colours used for waste categories in the Nordic labelling scheme

Our proposal includes all these starting points in the sense that we analysed the [European Environment Agency's early assessment reports](#) for common separate waste collection practices in EU Member States, took inspiration from the Unified Nordic pictogram system for recycling, considered Annex II of the provisionally agreed Packaging and Packaging Waste Regulation, and are now conducting this stakeholder consultation to collect input on this subject.

Table 2 outlines the proposed granularity, followed by some considerations explaining the reasons.

Table 2 Proposed granularity for the EU harmonised labelling system

Category No	Material category (indicated, here, by colour)	Material No	Material (indicated by pictogram)
1	Glass	1	Coloured glass
		2	Uncoloured glass
2	Paper /cardboard	3	Paper
		4	Cardboard
3	Metal	5	Ferrous metal and aluminium
		6	Hard plastic

4	Plastic Composite packaging	7	Soft plastic Paper-based (drink and beverage cartons, incl. TetraPak)
5	Wood	8	Wood
6	Food waste	9	Food waste*
7	Residual	10	Residual
8		11	

Notes: This classification applies to packaging materials and it is assumed that all materials except for residual waste are recyclable.

* “Not to be thrown away in nature” and “not home compostable”.

Material categories could be visualised on labels using colours, meaning that labels belonging to the same material category would be marked by the same colour. The JRC is aware that

1. associations of colours and waste materials are frequently rooted in cultural and historical contexts, and
2. member states in the EU have different associations between colours and waste materials, therefore using differently coloured waste receptacles for specific waste fractions.

The PPWR does not attempt to change the colour of receptacles. Yet, labels affixed to both packaging and receptacles will have to rely on colours specified by the EU harmonised waste sorting labelling scheme for the different waste fractions. We provide a proposal of label colours (and pictograms) in line with Table 2. Please note that these colours are proposals to elicit feedback from stakeholders and consumers.



Figure 6. First label prototype to elicit stakeholder and consumer feedback

This proposal rests on the following insights from the [EEA early assessment reports](#) and other information, specifically:

- **Coloured and uncoloured glass** are mostly collected separately in two fractions, with Germany, Ireland, Netherlands, Denmark, and potentially Luxembourg as exceptions who further separate by

specific colours. More than half of the countries have a form of voluntary or mandatory DRS in place for glass bottles.

- **Paper and cardboard** are frequently commingled, although some Nordic countries nowadays collect them separately, especially for commercial waste. According to the EEA reports, Latvia is planning a DRS for cardboard packaging starting in 2025.
- **Ferrous metals and aluminium** are almost always commingled. Some countries have voluntary or mandatory DRS systems to collect aluminium cans separately. Germany and Latvia also explicitly differentiate between packaging and non-packaging metals and how they are handled differently.
- **Plastic** is not distinguished into hard and soft plastics in the EEA reports, but this differentiation seems to be applied in some countries. Plastic is often commingled with composite packaging and metals. Some countries lacking the appropriate recycling capabilities exclude soft plastics from the recyclable waste collection.
- **Composite packaging** is frequently commingled with plastic or cardboard and sometimes with metals. In cases where DRS for plastic bottles exist, this influences the extent of commingling of these two materials.
- **Wood** is almost always collected separately. It is commingled with metal packaging in Austria and with others in Greece. Some DRS exist. Wooden packaging (primary and secondary) is likely not the most prominent packaging material and is almost always collected at bring points. For primary wooden packaging, common sorting practices might deviate from prescribed sorting due to insufficiently available infrastructure. In this case, such packaging ends in the residual waste.
- **Compostable waste** or bio-waste are separated into food waste and garden waste, which are sometimes commingled, according to the EEA reports. While in the past biowaste was frequently commingled with residual waste, separate collection of biowaste is now mandatory in the EU (see [Article 22 of Directive 2008/98/EC](#)). Considering the references of the PPWR to compostable packaging (see Table 1), labels must indicate that not home-compostable packaging is compostable only industrially. Furthermore, both labels require an additional message or label stating that for certain products, they must not be thrown into nature.
- **Residual waste** captures all materials that are not assigned to any other receptacle by any of the other waste sorting labels.

A brief note on **bioplastics**, which refer to biobased plastics and compostable/biodegradable plastics. As per our current understanding, assuming the granularity outlined above and common waste collection practices in the EU, recyclable biobased plastics would receive a “plastic” label and thus be commingled with plastic (either soft or hard plastic), whereas compostable plastic packaging would bear the ‘food waste’ label.

For reference only, we indicate some common cases of commingling: This work is not designed to investigate the practices of commingling nor to recommend more or less preferable commingling patterns, but rather to provide a flexible system adaptable to many different commingling situations. For information on separate JRC work related to commingling, please refer to [this JRC publication](#).

- **Metal and plastic** are almost always commingled.

- **Paper & cardboard and metal** are sometimes commingled: Slovenia, Malta, Ireland, Greece, France, Bulgaria, Italy.
- **Paper & cardboard, metal and plastic** are occasionally commingled: Bulgaria, France, Greece, Ireland, Italy, Malta, Slovenia.
- Commingling of **glass with other materials** is very rare: Italy, Greece, certain combinations of glass with metal in Denmark.

Desired input from stakeholders

Please reply to the following points. You do not have to reply to all of them. Please be as precise, clear, and specific as possible in your answer. Please provide reasoning and/or evidence whenever possible.

7.1 In your view, what are potential benefits and challenges of the **proposed granularity** highlighted in Table 2?

The potential benefits are deemed limited in countries where the separate collection systems for household packaging are well implemented.

A number of challenges have been identified in relation to the following points

- Applying the necessary labels to the different types of waste receptacles: trash bags (roll-out of existing stock and visibility), private bins (organisation of applying the label to these bins), underground glass containers with colour segregation (limited space available to put the corresponding label).
- Colour coding is seen as a major challenge. In the case of France, for example, packaging with brown, blue and orange pictograms (as foreseen in the current label proposal) end up in the same bin of a single colour, which could be confusing. The deletion of the colour codes could solve this problem. A meta-label covering all recyclable materials (paper, cardboard, plastic, metal, wood, cartons...) could also be implemented for country not needing a high level of granularity.

7.2 Do our considerations regarding commingling and separation practices **align** with the comments you made previously in this survey (if any)? In other words, would these labels work in your country or region, or for your specific purposes?

Overall, the proposed labels seems to align with the separation practices across Europe, and their visual aspect as simple labels could contribute to clarity for consumers.

However a finer classifications is needed for the colored glass category. Indeed, in some EU countries, the colour sorting (amber, green, flint, etc...) is implemented for glass separate collection. So for certain countries with mixed glass collection (e.g. Spain, Italy, France), only the meta-label could be useful, while for other countries (e.g. Germany, Ireland) there is a lack of granularity, since the green, brown and clear glass are separately collected. We therefore recommend extending the granularity for the coloured glass category, by creating green glass and brown glass subcategories.

7.3 In your view, what are potential benefits and challenges of the proposed label prototypes shown in Figure 6 regarding their **colours**?

Colour codes could be confusing as the colours of waste receptacles are not the same from one region /country to another and the colours of the labels cannot harmoniously match the colours of the waste receptacles across Europe. In this respect, the inclusion of colour codes for could make it more difficult for the final consumer to understand which waste receptacles should be used to dispose of the packaging.

In addition, there is not much added value to these colour codes other than to provide a visual identity for a family of packaging that is not needed in itself (if plastic A and plastic B are collected together in one country, they should just have the meta-label plastic and the consumer does not need to know that there is a higher granularity for these labels and the colour is useless as it is unlikely to match the bin colour; if plastic A and plastic B are collected separately in another country, the colour code creates unnecessary confusion on two labels of the same colour that should not be collected together).

7.4 In your view, what are potential benefits and challenges of the proposed label prototypes shown in Figure 6 regarding their **pictograms**?

Pictograms appear to be clear and easy to understand. However, the presence of text is key to ensuring that these pictograms are properly understood by the end user.

For glass : we recommend changing the glass pictogram into a bottle and a jar. This will make it more clear to the consumer that also jars are from glass and they can be recycled

7.5 In your view, what are potential benefits and challenges of the proposed label prototypes shown in Figure 6 regarding their **meta labels** (for paper+cardboard, cartons+plastics, coloured+clear glass)?

Categorisation in meta-categories could be useful for countries where the finer categories are not needed. For example, for all the countries where distinction between plastic A and plastic B is not made, then the meta-category plastic could be used. However, this implies that the packaging must be adapted per country basis, so the packaging present the label aligned with the level of granularity needed for the country's sorting system.

However, colour codes for meta-categories could be confusing as the colours of waste receptacles are not the same from one region/country to another and the colours of the labels cannot harmoniously match the colours of the waste receptacles across Europe. In this respect, the inclusion of colour codes for meta-categories could make it more difficult for the final consumer to understand which waste receptacles should be used to dispose of the packaging.

7.6 Do you have any **other thoughts** regarding the proposed label prototypes shown in Figure 6?

NA

According to your knowledge and experiences, should the following materials bear **separate or shared labels**?

7.7 **Paper and cardboard**

- Yes, there should be a label for paper and another label for cardboard
- Yes, there should be a label for paper and another label for cardboard and there should even be a finer differentiation with more labels (please explain why and which ones below)
- No, paper and cardboard should be a single label
-

I don't know

I don't have a preference

7.8 Please provide a reason for your answer (*optional*)

As far as we know, paper and cardboard are always collected together and there is no need for different labels.

7.9 **Ferrous metals and aluminium**

- Yes, there should be a label for ferrous metals and another label for aluminium
- Yes, there should be a label for ferrous metals and another label for aluminium and there should even be a finer differentiation with more labels (please explain why and which ones below)
- No, ferrous metals and aluminium should be a single label
- I don't know*
- I don't have a preference*

7.10 Please provide a reason for your answer (*optional*)

As far as we know, ferrous metals and aluminium are collected together most of the time and it does not pose any problems in terms of post-sorting industrial processes to collect them together. However, while no countries have shown a particular need to keep different labels, it wouldn't hurt to keep two different labels, as long as the meta-category metals could be used in countries that don't need a finer label.

7.11 **Hard and soft plastic**

- Yes, there should be a label for hard plastic and another label for soft plastic
- Yes, there should be a label for hard plastic and another label for soft plastic and there should even be a finer differentiation with more labels (please explain why and which ones below)
- No, hard and soft plastic should be a single label
- I don't know*
- I don't have a preference*

7.12 Please provide a reason for your answer (*optional*)

Although some countries are able to sort soft and hard plastics efficiently when collected together, there are still some collection systems only taking hard plastics. It wouldn't hurt to have two different labels, as long as the meta-category plastics can be used in countries that don't need a finer label.

7.13 Fibre-based **composite packaging** (e.g. drinks cartons) and potentially other types of composite packaging

- Yes, there should be a separate label for fibre-based composite packaging
- Yes, there should be a separate label for fibre-based composite packaging and there should even be a finer differentiation with more labels (please explain why and which ones below)
- No, there should be no separate label for fibre-based composite packaging

- I don't know*
- I don't have a preference*

7.14 Please provide a reason for your answer (*optional*)

A separate label is needed for fibre-based composite packaging as this packaging can be sometimes separately collected together with the paper/cardboard stream or with the plastic stream. In this regard, it will be necessary to adapt the label on the waste receptacles according to the sorting practice in the different region/country, while having a separate label for the packaging.

7.15 In your opinion, should **biobased plastics**

- receive the same label as other plastics to be collected together
- receive a different label than other plastics and be separately collected
- receive a label that depends on whether the biobased plastic can be recycled with other plastics or not
- I don't know*
- I don't have a preference*

7.16 Please provide a reason for your answer (*optional*)

It is important to make the difference between biobased/biodegradable/compostable/recyclable plastics. At present, many biobased plastics cannot be recycled with other conventional plastics, and they are therefore considered as a contaminant in separately collected plastic waste streams.

In this regard, all biobased plastics should not be labelled the same as other plastics as this would confuse the end users who have to dispose of this packaging, and this would in end have a negative impact on the purity of collected plastics for recycling.

If biobased plastic packaging is technically recyclable at scale with other conventional plastics, such as PLA, then it is reasonable to assume that these plastics could receive the same label as the other plastics they can be recycled with. The recyclability of these biobased plastics should be carefully verified before they receive the label.

For other biobased plastics, they should be labelled according to their final treatment (e.g. compostable, or residual waste if they cannot be recycled or composted).

It is important to note that the second option, to introduce separate collection for all bio-based plastics, does not appear to be feasible, as bio-based plastics are a heterogeneous stream that requires appropriate treatment according to the nature of the bio-based plastic, and therefore cannot be collected together as a single stream.

Additionally, Article 8.3 of PPWR mentions that "packaging made of biodegradable plastic polymers and other biodegradable materials, shall allow material recycling, in accordance with Article 6, and without affecting the recyclability of other waste streams."

7.17 In your opinion, should **compostable plastics**

- receive the same label as other compostable materials to be collected together
- receive a different label than other compostable materials and be separately collected
- receive a label that depends on whether the compostable plastics plastic can be recycled with other materials or not

- I don't know*
- I don't have a preference*

7.18 Please provide a reason for your answer (*optional*)

As far as we know, most compostable plastic are not recyclable. Even their composability must be proven, as compostable criteria it is not clearly defined today. This is why we believe compostable packaging must neither be collected with recyclable nor with compostable but with residual, or if they were, their compostability/recyclability must be thoroughly assessed to make sure that they do not perturbate the process to which they are sent according to the label they are granted with.

Additionally, Article 8.3 of PPWR mentions that "packaging made of biodegradable plastic polymers and other biodegradable materials, shall allow material recycling, in accordance with Article 6, and without affecting the recyclability of other waste streams."

See 7.16 for more information.

7.19 For the **category called "food waste"** above, what do you think is the **best terminology** (translated to English from your language. You can also add the term in your language)?

- Food waste
- Biowaste
- Compostable waste
- Other (*please specify*)
- I don't know*
- I don't have a preference*

7.21 Please provide a reason for your answer (*optional*)

Article 8.1 of the PPWR clearly indicate that the compostable packaging "shall be compatible with the standard for composting in industrially controlled conditions in bio-waste treatment facilities", and thus be collected together with food waste.

7.22 For the **category called "cartons"** above, what do you think is the **best terminology** (translated to English from your language, You can also add the term in your language)?

- Cartons
- Drink cartons
- Beverage cartons
- Composite packaging
- Other (*please specify*)
- I don't know*
- I don't have a preference*

7.24 Please provide a reason for your answer (*optional*)

As an example, Pringles are removing the metal base of their packaging and they are promoting them as recyclable. They are 90% recyclable and are considered as recyclable composite packaging rather than cardboard or paper, even though they get recycled in standard paper mills. They cannot get any higher than 90% as they need PET and aluminum foil to protect the product. But they are more recyclable than tetrapak.

They must fall into the carton category, but are food containers, not drinks or beverage containers. This concrete example shows that not all recyclable composite packaging is used for drinks. Therefore, we agree that the term carton is the best option IN ENGLISH as the public understands it.

However, in other languages, such as French or German, the translated equivalent of 'carton' refers to cardboard and may be confusing to the user. In addition, the term 'composite packaging' could be considered too technical, while the term 'beverage carton' or 'drink carton', while more commonly used and understood by the general public, does not cover the full range of carton packaging (see Pringles example).

In this particular case, terminology should be carefully studied according to local language usage and preferences.

7.25 Do you think that, using a label for food waste/biowaste/compostable waste, consumers understand the difference between compostable and home compostable waste?

- Yes
- No
- I don't know
- I don't have a preference

7.26 Please provide a reason for your answer (*optional*)

NA

7.27 Do you have any **other information or suggestions** to complement the above information regarding the proposed granularity of the EU harmonised waste sorting labels?

NA

8 Future-proofing the harmonised waste sorting labels

The definition of waste materials that require a label is a static exercise, meaning that it applies to a point in time. However, as new materials enter the market, they need to be either commingled with other waste fractions or separately collected. Also, other waste materials might leave the market. Similarly, countries (or regions within countries) might decide to commingle previously separated materials or begin separating previously commingled materials. These changes are influenced by political and economic decisions, technological developments, and changes in waste management infrastructure.

An EU harmonised WSL scheme that indicates materials and communicates separation rules by establishing visual correspondence between on-pack and on-receptacle labels should be flexible enough to handle such situations in principle.

For more information, see the [JRC report “Setting the scene for harmonised waste-sorting labels in the European Union”](#).

Desired input from stakeholders

Please reply to the following points. You do not have to reply to all of them. Please be as precise, clear and specific as possible in your answer. Please provide reasoning and/or evidence whenever possible.

8.1 What are your views **on the outlined challenges** posed by materials entering or exiting the market, or changing separate waste collection rules in Member States or regions of Member States?

We do not expect major challenges with new materials entering the market as the Design for Recycling criteria, as outlined in the PPWR, will introduce mandatory recyclability for packaging from 2030. If these materials meet the design for recycling criteria, they should be able to be sorted with other existing recyclable streams and would then carry the same label as the material they can be recyclable with. Therefore, labelling must be done carefully to ensure that the new material goes into the right streams. If there is a change in the separate collection of waste in a Member State/region, this will have to be clearly explained to the local population (explaining the benefits, with important communication campaign and comprehensive communication kit) and the waste labels on the bins will have to be changed. However, we do not see much more of a challenge than today without harmonised labelling.

8.2 Do you have any knowledge or views on **future waste separation and commingling rules** (and practices) and how they might change at different levels in the future (for example, planned increases or decreases in separation /commingling rules in your country because of modifications in the waste management systems)?

In the case of France, waste collection practices have recently changed and it is now time to see the benefits of this new collection system. Stability is now expected in French regulation on the sorting schemes.

In Ireland, The three bin system in Ireland is now universal and is supported by: bring banks (for glass, textiles, etc), the DRS, electrical stores for WEEE, and Civic Amenity sites for a wider range of materials. There is no envisaged changes to that system.

8.3 Based on your knowledge or expectations, which **waste materials** might change in the future (for example, new materials entering the market, materials leaving the market)?

NA

8.4 According to you, what are **problematic or special packaging** types? For example, packaging that is made from a specific material but still must be collected separately from that material (e.g., aerosol cans, polystyrene foam)? In your view, how should such situations be handled as regards the EU harmonised waste sorting label? Are these cases relevant packaging materials?

- Composite packaging (poorly recyclable) is collected as plastics/metals even though it is mostly cardboard. Consumers often do not know how to dispose of them properly.
- Expanded polystyrene, aerosols, biodegradable plastics, laminated packaging (chips) which are not mechanically recyclable could also be a problem.
- In addition, cylinders containing nitrous oxide or helium gas, which must officially be taken to a waste disposal centre for collection, can seriously damage machinery in sorting centres if thrown into the recyclable bin. On this packaging, the waste sorting label at European level could read "Hazardous Waste Disposal Centre".

We suggest that a specific work stream be set up to address these important issues.

8.5 Do you expect **periodic updates** of the granularity of EU harmonised waste sorting labels done by the European Commission? Do you think this can be "handled by the market"?

Periodic updates should not be too frequent to avoid consumer confusion.

8.6 Do you have any experience or suggestions on **mechanisms/processes that could inform the updating** of the EU harmonised waste sorting labels as waste sorting practices and materials evolve (including on a sub-national level, for example)?

NA

8.7 Do you have any **other information or suggestions** to complement the above information regarding aspects related to the evolution of the EU harmonised waste sorting labels?

NA

9 Visual design

Visual design here refers to the harmonised visual design of salient (noticeable), understandable and actionable waste sorting labels. As already mentioned above, the labels must be placed, printed, or engraved and they must be **visible, legible** and **firmly applied** to prevent erasure, both on packaging and on waste receptacles.

Note that these specifications confirm the **Unified Nordic pictogram system for recycling** as an appropriate starting point for the EU harmonised waste sorting labels also with respect to the visual design. In the current online consumer surveys, we thus explore the importance of certain aspects of waste sorting labels using adapted Nordic labels as working prototypes.

The JRC identified the following elements of label design as relevant

1. **Pictogram:** The pictograms on labels will have to clearly indicate which type of product, packaging or waste material they refer to.
2. **Material text:** The labels can feature text clarifying which **material(s)** they refer to.
3. **Colour use:** The labels may use colours to indicate **material categories** but should also work in monochrome/black-and-white (primarily using pictograms and text).
4. **Material text language:** On receptacles, text indicating the material must be in one or more easily understandable languages determined by the Member State in which the packaging is to be made available. On packaging, an additional common language (like English) could be used to support cross-border applicability. Use of languages other than English will require country-specific packaging labels. Using text on receptacle labels but not on packaging labels might be an option.
5. **Component labels:** In situations where packaging consists of multiple packaging components and where these components are made of different materials (for example, yogurt packaging consisting of a glass jar with a plastic lid and an outer paper wrapping), multiple material labels will need to be placed on the packaging. Consumers need to be able to infer which components the labels refer to. Component labels can help consumers in doing so, by visualising components and assigning them to the respective material labels (see the Figure 7 below for an example). One important aspect here is that component labels must be designed and adequately combined with the waste sorting labels. Alternatively to component labels, text might be used to highlight the component a material label refers to (e.g., text stating “lid” or “outer packaging”).
6. **(Minimum) size:** Labels need to be of sufficient size to be noticeable and understandable for consumers. The minimum size will differ between on-pack and on-receptacle labels. There are particular challenges for adequate size for certain types of (very small) packaging. At the same time, labels also need to work in large size, e.g., on bins and containers.
7. **Positioning:** Labels need to be positioned on packaging and receptacles such that they are salient, also relative to other information and labels. Naturally, placing them near information that is most relevant for consumers makes them most likely to be noticed. Placing them away from potentially distracting or confusing labels will also be advantageous.
8. **QR codes or other types of data carriers:** The provisionally agreed packaging and packaging waste regulation allows operators to place a QR code or other type of digital data carrier on the packaging that contains information on the preparation and cleaning of packaging or on the destination of each separate component of the packaging to facilitate consumer sorting for example.
9. **Other things relevant to WSL design**
 1. The labels must not reduce recyclability of the packaging
 2. Very small packaging might pose some challenges
 3. Outside on-receptacle labels need to be weather-resistant for different climates (hot, cold, wet)



Figure 7: An example for a component label on multi-component packaging.

Desired input from stakeholders

Please reply to the following points. You do not have to reply to all of them. Please be as precise, clear and specific as possible in your answer. Please provide reasoning and/or evidence whenever possible.

9.1 What are your views on the provided list of **design elements** for EU harmonised waste sorting labels? Are there any elements that are missing or that are nonessential?

NA - Labels are simple, clear and informative at same time

Please provide your preferences regarding the options for these elements, specifically for each element. More precisely, according to you:

Would you prefer the label to be coloured or in black-and-white? See images below as examples (*note that the black colour of the bins are examples. In some countries, bins might have different colours. Note that changing the colours of bins is not part of the packaging and packaging waste regulation. Yet, as indicated, colours used for materials in the EU harmonised labels might differ from colours currently used for materials in some EU countries*).



Figure 8: Examples for coloured and black and white pictograms

9.2 On packaging

- Coloured
- Black and white
- I am not sure / It depends
- I don't have a preference

9.3 On waste receptacles

- Coloured
- Black and white
- I am not sure / it depends
- I don't have a preference

9.4 Please provide any reasoning or relevant information on your answer, if you want.

Colour codes could be confusing as the colours of waste receptacles are not the same from one region /country to another and the colours of the labels cannot harmoniously match the colours of the waste receptacles across Europe. In this respect, the inclusion of colour codes for could make it more difficult for the final consumer to understand which waste receptacles should be used to dispose of the packaging.

Should the label have text describing the material name? See the images below as examples.



Figure 9: Examples for pictogram-only (text-free) label and label with text

9.5 On packaging

- Yes
- No
- I am not sure / it depends
- I don't have a preference

9.6 On waste receptacle

- Yes
- No
- I am not sure / it depends
- I don't have a preference

9.7 Please provide any reasoning or relevant information on your answer, if you want.

It makes the label easier to understand.
 It also helps local authorities to adapt their message in awareness campaigns with common and simple vocabulary, to introduce clear and efficient sorting instructions.

If the label includes text describing the nature of the material, should it be **in the official language(s) of your country, in other languages, using a code** (e.g. alphanumerical code, see next question), **or in several of the above?**

9.8 On packaging

- National language(s)

- Other languages
- Code (please specify below)
- I am not sure / it depends*
- I don't have a preference*

9.9 On waste receptacles

- National language(s)
- Other languages
- Code (please specify below)
- I am not sure / it depends*
- I don't have a preference*

9.10 Please provide any reasoning or relevant information on your answer, if you want.

It makes the label clearer.
 Codes are not easily understood by the end consumer. Communication in the local language is the best way to ensure that the label is correctly understood by the end consumer.

Should labels bear a material identifier, such as an alphanumerical code? The images below are examples of these identifiers (recycling codes based on Commission Decision 97/129/EC). PET 1 specifies the type of plastic, and PAP 22 shows that it is paper.



Figure 10: Examples of material identifiers using alphanumerical codes

9.11 On packaging

- Yes
- No
- I am not sure / it depends*
- I don't have a preference*

9.12 On waste receptacles

- Yes
- No
- I am not sure / it depends*
- I don't have a preference*

9.13 Please provide any reasoning or relevant information on your answer, if you would like.

Only a very small proportion of the population knows the meaning of these codes, and they have not proved effective for separate collection.

Should the label bear a **QR code or other type of digital data carrier**? This code could be scanned and lead to a website providing additional information on local waste sorting practices.



Figure 11: Examples of labels on packages and on bins with or without QR codes

9.14 On packaging

- Yes
- No
- I am not sure / it depends
- I don't have a preference

9.15 On waste receptacles

- Yes
- No
- I am not sure / it depends
- I don't have a preference

9.16 Please provide any reasoning or relevant information on your answer, if you want.

QR codes can be useful for end-users who are unsure about the separate collection of a waste packaging and who would like to easily access information on how to separate the packaging and how to prepare the packaging for valorisation. Clear and simple information on appropriate separation (which bin to use) and how to prepare the packaging (cleaning, separation of packaging materials) could be of interest if it improves the quality and purity of waste streams for further recovery.

However, QR codes are definitely not the key answer to ensuring good waste segregation. The number of end-users who will scan the QR code on the waste packaging before throwing it away to ensure that they have thrown it away in the right place is probably a minority. Local public awareness campaigns remain the essential element to ensure good waste segregation.

About waste sorting labels on packaging indicating the different packaging components? See images below for examples.



Figure 12: Examples of graphical guidance on separating packaging components

9.17 Should a waste sorting label on packaging indicate the different packaging components?

- Yes, consumers need clear information on which component is made of which material
- No, consumers often figure this out on their own
- I am not sure / it depends
- I don't have a preference

9.18 Please provide any reasoning or relevant information on your answer, if you want.

The labelling system needs to be flexible enough to work in all EU Member States. Sorting instructions on whether to separate components such as lids and caps from glass containers vary between countries, and such instructions must be adapted to the local practices.

9.19 How should the different packaging components be indicated when different components are made of different materials?

- By providing additional explanatory text next to the pictograms
- By providing an illustration / graphical guidance next to the pictograms (as in the previous image)
- By providing both illustration and text
- By affixing the labels on the corresponding components (as in the next image)
- I am not sure / it depends
- I don't have a preference



Figure 13: Example of material labels attached to respective packaging components

9.20 Please provide any reasoning or relevant information on your answer, if you want.

NA

10 Other pertinent issues

The JRC identified some other pertinent issues that we would value your input on. Please reply to the following points. You do not have to reply to all of them. Please be as precise, clear and specific as possible in your answer. Please provide reasoning and/or evidence whenever possible.

10.1 How should “**auxiliary**” **consumer information** such as pre-disposal instructions be handled? For example, some components must be separated even if they end up in the same stream (e.g., sometimes plastic lids need to stay on, but lids of yoghurt packaging need to be removed, even if they end up in the same bin), should this be

communicated on the EU harmonised waste sorting labels? Another example, sometimes packaging needs to be cleaned before disposal, should this be communicated on the EU harmonised waste sorting labels? Please also consider the role of QR codes and other digital data carriers with respect to this.

This information has to be part of the waste sorting label directly on the packaging. A QR code should only be an additional source of information. We are not convinced that consumer will take the time to scan the QR code for instruction.

10.2 To better understand the requirements for labels across different countries, could you specify **which countries or groups of countries currently necessitate distinct packaging from producers and why** (for instance, due to language requirements on product packaging)?

NA

10.3 According to you, what are expected **interactions of waste sorting labels with existing and upcoming labels** (for example, re-use, recyclable content, single-use plastics, Deposit Refund Scheme, Triman, etc.)? Do you foresee any particular challenges for different stakeholders, including for consumers and their understanding?

NA

10.4 What are your views on the fact that the EU harmonised waste sorting labels may rely on **colours** to identify material categories that differ from those used in the different Member States? We know that there are country-specific associations between colours and waste materials in the EU. Consequently, an EU harmonised waste sorting label using colours could create a temporary^[1] **mismatch** of the colours on the labels and those commonly used for receptacles in some Member States. In practice, this can lead to (for the sake of example) a yellow plastic label on a blue plastic bin. What are your thoughts on this? According to you, what are potential solutions or ways to mitigate the resulting challenges (particularly for consumer understanding)?

[1] It is anticipated that in time, bins could be replaced with harmonised colours or neutral colours (as the colour-coding will be encapsulated in the labels), but existing bins will be kept in use until the end of their useful life (for obvious environmental and economic reasons). In this interval, some colour mismatching may then arise.

The education of citizens takes years. Re-educating them and changing their habits would damage the benefit of past efforts, and would require an enormous amount of time, effort, and resources, and could possibly even lead to greater misunderstanding amongst the population. This long-term effect must not be underestimated. Private waste management companies invariably promote new habits, changing the way they work to improve source segregation and selective collection. Therefore, they are very familiar with the challenges of trying to improve citizen behaviour. If the goal is to improve separate collection systems in the EU, particularly for households, it would be beneficial to avoid confusing

the population by changing waste colour codes (e.g. bins, bags, containers) for “harmonisation” purposes. In addition, the harmonisation of colour codes has no significance nor added value to the environment but will instead generate widespread confusion and substantial costs

10.5 What **technical challenges** do you encounter **when printing labels on different packaging materials**? Please describe the specific material, identify the challenging design elements (such as colours, shapes, thickness, etc.), and explain why these elements are challenging.

NA

10.6 What **maintenance challenges** do you encounter **with labels on waste receptacles, waste bag printing, or other surfaces** used for sorted waste collection? Please describe any specific issues related to durability, visibility, wear and tear, or other factors.

Given the potential difficulties in correctly applying labels to waste receptacles, it is important to use good quality labels (e.g. UV and weather resistant) and to make them easy to apply/print on the waste receptacles.

11 General feedback

Congratulations, you arrived at the end of this survey, and **we sincerely thank you for the information and insights you have provided us with**. We deeply appreciate the time you have taken. Your insights and that of your fellow stakeholders are invaluable to us.

11.1 If there is anything else you would like us to know and that we did not ask about, please let us know in the text field below. Here as well, please try to be concise and to the point:

NA

11.2 If you would like to share any documents with us, you can upload them here:

The scientific work for this project is being conducted by the **EU Policy Lab of Unit S.1 of the Joint Research Centre** in Brussels, in cooperation with **Unit B.5 of the Joint Research Centre** in Sevilla. The work is conducted for the **Directorate-General for the Environment**.

For any questions related to this project, please contact JRC-WASTE-LABELLING@ec.europa.eu.

For further or future key information, please visit the [website of the EU Policy Lab](#).

Useful links

[Provisionally agreed Packaging and Packaging Waste Regulation \(https://www.europarl.europa.eu/doceo/document/TA-9-2024-0318_EN.pdf\)](https://www.europarl.europa.eu/doceo/document/TA-9-2024-0318_EN.pdf)

[JRC report Separate collection of municipal waste: citizens involvement and behavioural aspects \(https://publications.jrc.ec.europa.eu/repository/handle/JRC131042\)](https://publications.jrc.ec.europa.eu/repository/handle/JRC131042)

[JRC report Behavioural insights for waste-sorting labels in the European Union \(https://publications.jrc.ec.europa.eu/repository/handle/JRC134206\)](https://publications.jrc.ec.europa.eu/repository/handle/JRC134206)

[JRC report "Harmonised labelling of waste receptacles with matching product labels" \(https://data.europa.eu/doi/2760/09021\)](https://data.europa.eu/doi/2760/09021)

[EEA early assessment reports \(https://www.eea.europa.eu/publications/many-eu-member-states/early-warning-assessment-related-to\)](https://www.eea.europa.eu/publications/many-eu-member-states/early-warning-assessment-related-to)

Background Documents

[JRC report Setting the scene for harmonised waste-sorting labels in the European Union](#)

Contact

[Contact Form](#)