Feedback on Labelling of Packaging and Waste Receptacles (Ramboll & JRC)

Comments from the Rethink Plastic Alliance (RPA) on the JRC and Ramboll work on labelling of packaging and waste receptacles under the Packaging and Packaging Waste Regulation (PPWR)

Feedback to the labelling options

Influence on consumers

Information about plastic influences consumers' purchasing decisions, as shown in this consumer survey. The vast majority of consumers are more likely to make a purchase if the packaging is labelled as fully recyclable or as containing recycled plastic. Even though most people believe that plastic products and packaging are a rather negative choice for the environment, the majority perceive them as an environmentally positive choice when they are marked with green logos.

Labels on recycled content in plastic packaging

No circular or green imagery

We are concerned that the proposed label for packaging recycled plastic content includes a closed loop that could give the false impression to consumers of endless plastic circularity. This could deceive consumers by overstating packaging environmental benefits as no recycling technology can ensure a full circular loop.

According to the EU Directive on unfair commercial practices (UCPD), as amended by Directive (EU) 2024/825 on Empowering Consumers for the Green Transition, and the UCPD Guidance (4.1.1.3), "An average consumer is not expected to know the meaning or significance of various public and private codes of conduct, labelling schemes, certificates or logos. Traders should inform consumers about these elements and the relevant characteristics in relation to the claim in question [...]."

This was also demonstrated in the outcome of BEUC greenwashing complaint (European Consumer Organisation) against the plastic recycling claims of three major drinking water bottle traders - Coca-Cola, Danone and Nestlé Waters/Nestlé. The three brands have now committed, in respect of their own claims, to ensure "that the overall impression of the label and the marketing is not misleading regarding the inherent environmental benefits of plastic bottles, for instance by combining them with other green claims or symbols."

The PPWR clearly requests that "economic operators shall not provide or display labels, marks, symbols or inscriptions that are likely to mislead or confuse consumers or other end users with

respect to the sustainability requirements for packaging" (article 12(8)). As for private environmental claims, public labels including the PPWR harmonised labels should meet at least the same level of transparency and accuracy.

Besides, the Möbius loop is highly confusing for consumers already today[1]. It can indeed have several meanings: the packaging is recyclable (or partly recyclable), it is made from recycled materials or it should be sorted for being recycled. The Möbius loop is also commonly used in the resin identification code to indicate the predominant plastic material used in the manufacture of the product or packaging and assist recyclers with sorting the collected materials, but does not confirm recyclability.

We are finally concerned consumers risk confusing the proposed image for the recycled content label and the image for the reusable packaging label *(see below)*. This reinforces the need to move away from a circular image for the packaging recycled plastic content label.

Recycled content percentage

For the recycled plastic content label, the claim should be specific. However, the percentage shall not concern the specific packaging since the share of recycled content is "per packaging type and format [...] calculated as an average per manufacturing plant and year" (PPWR articles 12(4) and 7(1)). **The share of recycled content shall only concern the packaging production process**, e.g. "on average our production method uses X% recycled content in 2026".

In addition, the term "attributed recycled content" shall not be mentioned in the packaging label as consumers do not understand it. This was confirmed by the Netherlands Authority for Consumers and Markets (ACM) in this decision: companies should not give the impression that individual products are more sustainable through a 'mass balance system', because it is impossible to guarantee that an individual product actually contains the sustainable material the labelling refers to. If recycled content based on attribution is used, the specific packaging may not contain the percentage claimed. Other claims on the packaging label than exact recycled plastic content should be used to focus on the production system, e.g. "made in a factory using X% recycled content on average. This specific product may contain a different proportion of recycled content due to production variations".

Labels for bio-based plastic packaging

Leaf imagery issue

The proposed label for packaging bio-based plastic content includes a leaf, which consumers may perceive as an indication of overall environmental friendliness, or even superiority, whereas in reality it merely communicates information regarding the origin of the feedstock used to manufacture the packaging.

[1] Research from UNEP and the UK consumer group Which? found recycling symbols on packaging are confusing: https://www.recyclingbins.co.uk/blogs/news/recycling-symbols-are-confusing-consumers https://www.oneplanetnetwork.org/knowledge-centre/resources/can-i-recycle-global-mapping-and-assessment-standards-labels-and-claims

According to the UCPD Guidance (4.1.1.3), "an average consumer is not expected to know the meaning or significance of various public and private codes of conduct, labelling schemes, certificates or logos." As a result, even where a symbol is accompanied by explanatory language, it remains necessary to assess whether consumers are likely to understand its actual significance. A graphical symbol may carry connotations that extend beyond its intended meaning and may therefore create expectations regarding environmental performance that are not objectively substantiated.

The risk is particularly significant for packaging, where environmental performance should be assessed considering sustainability criteria on the basis of a life-cycle approach (LCA)[2]. Against that background, the use of a leaf symbol for bio-based packaging may be problematic where:

- LCA studies have not demonstrated superior environmental performance of the packaging;
- there is no scientific consensus that bio-based packaging performs better than comparable non-bio-based alternatives; or
- the symbol is likely to be interpreted as signifying a general environmental benefit rather than merely the origin of the feedstock.

Therefore, the fact that a packaging material is bio-based does not, in itself, establish that it has a higher environmental impact. Any suggestion of overall environmental superiority would need to be supported by appropriate life-cycle evidence. However, consumers can visually associate the leaf symbol with positive environmental outcomes, and can even deduct higher environmental outcomes than for reusable packaging. This would go far beyond the information the label is intended to convey.

Besides, consumers can confuse this image with packaging intended to be composted with the biowaste stream. The following voluntary certification schemes already include a leaf and can be confused with the proposed EU bio-based plastic content label: the certified compostable fruit label in France[3] or the industrial compostable certification with the seedling pictogram in Germany[4].

For these reasons, no leaf symbol or green imagery should be used in the bio-based plastic content label to ensure the overall coherence of the labelling framework and minimise risks of misinterpretation by consumers regarding their overall environmental performance. It is even more important as consumers are likely to attribute greater credibility and authority to packaging labels established through the PPWR, even if companies use it voluntarily. Public labels should meet at least the same level of transparency and accuracy expected of private environmental claims, which follow the UCPD.

[2] PPWR article 8.1 and Directive (EU) 2018/2001 article 29a(3).
[3] Example of certified compostable fruit label: https://www.sinclair-intl.com/produce-labeling-solutions/
[4] Example of certified industrial compostable label, often used in Germany and the Netherlands: https://www.dincertco.de/din-certco/en/main-navigation/products-and-services/certification-of-products/environmental-field/industrial-compostable-products/

Bio-based content percentage

The lack of any percentage on the proposed bio-based plastic content label can give the misleading overall impression to consumers that the packaging is made of 100% bio-based plastic content, whereas only a smaller share is included. This is not compatible with the UCPD: “environmental claims are likely to be misleading if they consist of vague and general statements of environmental benefits without appropriate substantiation of the benefit and without indication of the relevant aspect of the product the claim refers to”, according to the UCPD Guidance. The Empowering Consumers Directive also gives ‘biobased’ as one of the examples of prohibited generic environmental claims “or similar statements that suggest or create the impression of excellent environmental performance”.

To ensure the environmental claim is specific and “provided in clear and prominent terms on the same medium”, the precise share of bio-based plastic shall be included in both the physical and the digital label (it is already proposed in the digital label). Additionally, the use of “attributed content” through a 'mass balance system' should not be authorised as this method is not considered suitable to confirm the actual share of bio-based input.

Radiocarbon-based measurement

The 2022 Communication setting an EU policy framework on biobased, biodegradable and compostable plastics recommended the use of radiocarbon-based methods “as their results are robust and their use is widely accepted” (it measures precisely 14C as a marker for bio-based carbon content). It acknowledged “the crosscutting standards developed by the European Technical Committee for Standardisation for bio-based products (EN 16640:2017 and EN 16785-1:2015 from CEN/TC 411) offer guidance on aspects such as measuring methods of biobased content, business-to-business and business-to-consumer communication. These voluntary standards are widely used by the market and their application is recommended as it ensures a consistent approach.” It added “Documenting the use of biomass through a chain of custody and attributing a share to end-products through mass balance accounting is a method which is not considered suitable for confirming the actual share of biobased content.”

ASTM D6866 is also a standard helping to accurately measure the share of biogenic carbon.As an example, USDA BioPreferred / USDA Certified Biobased Product label uses a percentage of “bio-based content” defined using ASTM D6866 (radiocarbon standard). It is a good example of radiocarbon-based testing and transparency with exact percentage statements distinguishing product and packaging bio-based content. BioPreferred|Seller

In contrast, the mass balance method in EN 16785-2 should not be allowed, as it enables firms to claim bio-based content without physical proof, allowing products made entirely from fossil feedstock to be marketed as “bio-based.” This approach, often favoured by large companies, is problematic as it makes it impossible to verify the actual bio-based content of individual products.

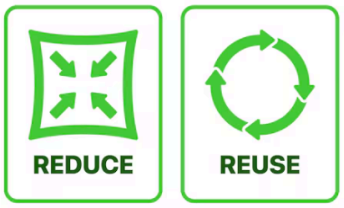
In addition, bio-based plastics are often composed of a base biopolymer combined with additives which may not be bio-based. The PPWR implementing act should clarify non-bio-based additives are excluded from the bio-based plastic percentage content.

Labels on reusable packaging

Reusable label

1. **The image for the reusable packaging label should be encompassing,** i.e. applicable not only to sales packaging but also to e-commerce and transport packaging. In addition, consumers should not confuse it with the recycling logo, nor the recycled content logo.

2. **The reuse label should clearly stand for reuse and a circular system**, this is not however the case of the suggested Options 1 and 2 as both of them resemble the recycling symbol too closely. Given consumer confusion between existing recycling symbols risks blurring the distinction between reuse and recycling, which is precisely what the label should make clear. **We would therefore recommend a design that visibly communicates the return-and-refill loop**. We would also suggest developing more design options and ask for consumer-testing of those before a final choice is made on a common labeling. See image below as an example:



3. **The wording "reuse" or "reusable" should be mandatory on the label.** The label should clearly communicate that the packaging is **reusable**, rather than relying solely on a symbol. While symbols can help with harmonisation across the EU, including the word "reusable" alongside the pictogram would significantly improve consumer understanding, particularly during the transition period while the label becomes familiar, as it is a new label for them. A clear textual indication also reduces the risk of misinterpretation and helps reinforce the message that the packaging is intended to be returned and used multiple times.

4. **Reusable packaging should not carry waste sorting labels.** Packaging that is part of a reuse system should display only the reusable label and should not also bear waste sorting labels (e.g. the glass recycling label). Waste sorting labels signal that the packaging should be disposed of after use, whereas reusable packaging is designed to be returned to the reuse system. Displaying both labels risks sending contradictory messages to consumers and may encourage disposal instead of return, undermining the effectiveness of reuse systems. Only once reusable packaging reaches the end of its service life should it enter the waste management system for recycling.

5. **Reusable label enforceability:** Lastly, we would like to reiterate that the EU reuse label will only achieve its intended purpose if it is underpinned by clear, harmonised and enforceable rules ensuring that only genuinely reusable packaging can bear the symbol, as already highlighted in the joint stakeholder statement on the reuse label. To this end, we call for the establishment of a coherent **EU reuse governance framework** that brings together the EU-wide reuse symbol, the minimum number of rotations, the methodology for calculating

reuse targets and the minimum reuse requirements laid down in the PPWR. Together, these elements would create a robust and credible framework that prevents misuse of the label and greenwashing, while providing legal certainty for operators and effective enforcement for market surveillance authorities.

Correlation between reuse and DRS labels for consumers

Greater clarity is needed regarding the relationship between reuse and DRS labels to ensure consumers can easily identify and correctly return packaging. Reusable packaging systems frequently operate through deposit return schemes, with consumers paying a deposit that is refunded when the packaging is returned.

Our understanding from the JRC presentation is that the EU DRS label would apply only to packaging covered by Article 50(1) of the PPWR, namely single-use plastic and metal beverage packaging. However, in practice, the same return infrastructure may be used for both single-use and reusable packaging, as encouraged by the PPWR. If reusable packaging does not carry a DRS-related indication while consumers are expected to return it through the same infrastructure, this may create unnecessary confusion. Clear consumer information and awareness-raising will therefore be essential to ensure the correct functioning of both systems. Specific countries such as Latvia for instance have a deposit logo which is declined in two versions based on whether the deposit is reusable or single-use packaging (see here). This could ensure that consumers are aware of the return modalities of the reusable packaging.

Correlation between EU and national labels

Further clarification is also needed regarding the relationship between the future EU harmonised labels and existing national labels. Our understanding is that Member States will remain free to retain or introduce national labels alongside the EU label. This is particularly relevant in countries where deposit return schemes for reusable packaging are already well established.

For example, in Belgium, the existing deposit label ("consigne"/"statiegeld") enables consumers to identify reusable packaging that can be returned through a deposit return system. If the future EU DRS label applies only to single-use beverage packaging, while national DRS labels continue to identify reusable packaging, consumers may struggle to distinguish between the two.

To avoid confusion, we recommend either:

- ensuring comprehensive consumer communication clearly explaining the different functions of EU and national labels;
- or, preferably, requiring **all packaging subject to a deposit**, whether single-use or reusable, to display a harmonised DRS (deposit) label, while reusable packaging would additionally carry the EU reuse label. This approach would better reflect how consumers interact with deposit systems and provide a more intuitive and consistent user experience across the EU.

Substances of concern

While Art. 12 (7) requires that a digital label contains information about substances of concern present in each material in a packaging unit, it does not limit access to this information to waste (recycling) operators and to end-consumers. In principle, all actors should have access to such essential information, from waste operators to economic actors and end-consumers.

It is important to ensure adequate access / readability of this data to the operators of reusable packaging systems as well. This will support informed testing of chemical migration by these operators (which differs from testing of single-use packaging), along tracking the rotations of reusable packaging. As recognised in the Commission Regulation (EU) 2025/351, repeated use may lead to deterioration of the plastic material or article, leading to an increase of migration of constituents (such as substances of concern) into food that may endanger human health.

According to Art. 14.1 ('Labelling') of Regulation 2025/351, the manufacturer or other operator responsible for placing on the market a final plastic food packaging intended for repeated use, shall provide to its users the following:

(a) appropriate instructions designed to slow down deterioration of the article;
(b) a description of observable changes of the packaging that may indicate the deterioration of the article or material;
(c) a warning in case specific damages or foreseeable misuse would cause increased migration or would cause the article to become otherwise unsuitable for further use in contact with food.

Given that the vast majority of reusable food packaging is currently made of plastic, harmonising the labelling rules contained in various legal acts while designing a digital label is the most appropriate and effective way to avoid additional administrative burdens for economic operators.

About the Rethink Plastic Alliance

The Rethink Plastic Alliance is a coalition of leading European NGOs advocating for ambitious EU policies to tackle the growing crisis of plastic pollution. It brings together the Center for International Environmental Law (CIEL), ClientEarth, the Environmental Investigation Agency (EIA), the European Environment Bureau (EEB), the European Environmental Citizen's Organisation for Standardisation (ECOS), Greenpeace, Seas At Risk, Surfrider Foundation Europe, and Zero Waste Europe. Together, these organisations represent thousands of active groups, supporters and citizens in every EU member State working towards a future free from plastic pollution.