



CIRCULAR ANALYTICS

PACKAGING NEWSLETTER

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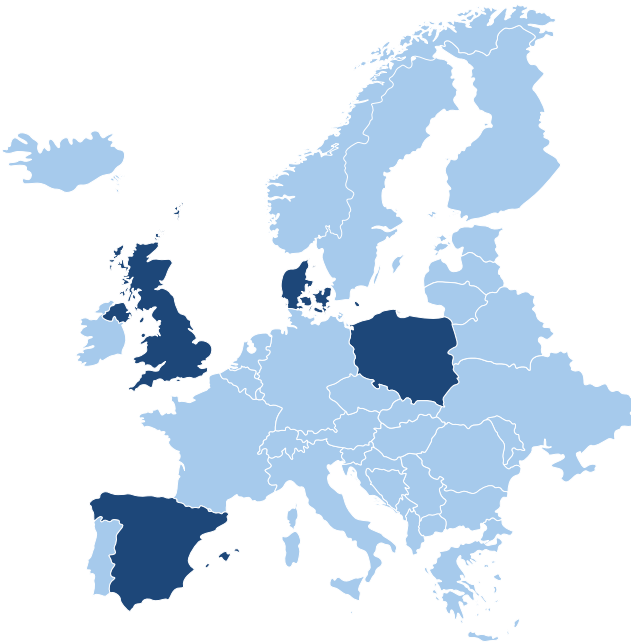
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UPDATE OF THE PACKAGING AND PACKAGING WASTE REGULATION



**Adopted in 1st reading by the
European Parliament**

Provisional agreement:
04.03.2024

Proposal of the Council of the
European Union: 18.12.2023

Proposal of the European
Parliament: 22.11.2023

Proposal of the European
Commission: 30.11.2022

Although the Regulation has reached the legislative process's final stages, discussions are still ongoing. On 2 October, the EU member states held their final discussion of the PPWR, resulting in a series of minor changes that are now being negotiated between relevant stakeholders. However, on 5 October, the Parliament raised questions about the planned changes, citing a "significant shift in the meaning of the text in the final stage."

It is anticipated that the PPWR will be formally approved in the language versions by the European Parliament during the plenary session scheduled for 13-14 November. The Council is expected to give its approval in December. Subsequently, the text will be published in the EU Journal and will enter into force 20 days later.

[Further information](#)

INDUSTRIAL PACKAGING AND THE PPWR: A SECTOR FACING NEW SUSTAINABILITY DEMANDS

Since the adoption of the Packaging and Packaging Waste Regulation (PPWR) in the first reading, a closer look reveals that it also has a growing influence on packaging within the industrial sector.

According to Article 2, the PPWR applies to all packaging, regardless of the material used. Article 3, (1) defines "packaging" to include all secondary and transport packaging. This means that the aims of the PPWR, such as minimum recycled content and reuse targets, apply to all packaging placed on the market. The responsibility for compliance lies with the entity placing the packaging on the market.

But what exactly does "placing on the market" mean under the PPWR (Article 3, (12))? It refers to the first-time packaging is made available on the European market. This first-time availability is further defined as a change in ownership. What exactly a change in ownership means in this context has not yet been defined. If it includes ownership changes within the industrial sector, then all packaging, even those that never reach a customer in-store, would have to meet the same requirements.

There are also specific reuse targets for transport packaging, primarily affecting packaging within the industry, depending on the transport route and application (Table 1). These targets cover all components, such as stretch films and strapping bands. Boxes made from cardboard are excluded from these reuse targets.

Packaging Type	2030	2040
Transport and sales packaging* for transport within the Union (including e-commerce)	min. 40%	min. 70%
Transport or sales packaging for transport within the Union between different locations where the operator conducts its activities	100%	100%
Transport or sales packaging for the delivery of products to another economic operator within the same Member State	100%	100%
Outer packaging in the form of boxes, excluding cardboard boxes, to bundle a certain number of products into a storage or distribution unit	min. 10%	25%

Table 1: Reuse Targets

While reusable pallets are already commonly in use, the idea of reusable stretch film in its current application is more difficult to imagine. Virginijus Sinkevičius, Member of the European Commission, acknowledged that achieving a 100% reuse target for materials like stretch film and strapping bands is unrealistic based on current conditions. As a result, he has called for an exemption of these materials from paragraphs 2 and 3 of Article 29, by future delegated acts.

Moreover, in a letter addressed to members of the German CDU/CSU, SPD, FDP, and Green parties in the European Parliament, from 2nd. October 2024, various industry associations raised concerns about the unrealistic 100% reuse quotas for industrial and commercial packaging under the PPWR. The letter points out that these quotas could disrupt key supply chains across the EU as no practical reusable solutions exist for many packaging types, such as pallet wrappings, strapping bands, and other industrial packaging. The associations argue that these measures would not only harm business operations but also fail to align with transport safety regulations. The letter also emphasizes that the reuse quotas unfairly disadvantage companies operating primarily within national markets compared to those with higher cross-border activity. They call for a correction of what they describe as an unintended expansion of the scope of reuse quotas in the latest version of Article 29.

The mandatory minimum recycled content for plastic packaging is calculated per packaging type and format (according to Annex 2, Table 1) as an average per manufacturer and year. Industrial packaging, which falls under the category "Other," must meet a quota of 35% by 2030 and 65% by 2040 (Article 7). This article does not apply to any plastic part that makes up less than 5% of the total weight of the entire packaging unit.

Most summaries of the PPWR targets state that the 5% rule applies to the whole packaging. However, the legal text clearly refers to the entire packaging unit, which becomes particularly relevant in the example of a stretch film.

According to the PPWR, a packaging unit is "a unit as a whole, including any integrated or separate components, which together serve a packaging function such as the containment, protection, handling, delivery, storage, transport or presentation of products" (Article 3(44)).

Looking at the definitions of integrated and separate components, for example, a pallet combined with anti-slip paper and a stretch film, which together serve to bundle and transport cartons, would be considered as one packaging unit since these elements together fulfil the function of transport and handling.

If we now consider stretch film as part of this entire packaging unit, the lightweight film will account for less than 5% of the total weight compared to the pallet, meaning it would be exempt from the minimum recycled content requirements for plastic packaging. - A perspective that has not been considered much in the application for this article.

IMPLEMENTATION OF THE EU DEFORESTATION REGULATION PUSHED TO 2025

The European Commission has proposed extending the European Union Deforestation Regulation (EUDR) timeline to allow concerned parties to adequately prepare. If approved, the rule would come into effect in December 2025, for large and medium-sized companies, and in June 2026, for micro and small enterprises.

According to the European Commission, given the innovative nature of the EUDR, the accelerated timeline, and the variety of international stakeholders involved, granting a 12-month phase-in period is a balanced solution to support global operators in achieving successful implementation from the outset.

The proposal does not alter the substantive content of the Regulation but provides an additional period to facilitate a smooth transition and ensure that all stakeholders are fully prepared for the EUDR's enforcement.

Background and Purpose of the EUDR

The new Regulation (EU) 2023/1115 on deforestation-free products aims to promote the consumption of items that do not cause deforestation, thereby reducing the EU's impact on global deforestation and forest degradation. This initiative is expected to contribute to lowering greenhouse gas emissions and mitigate biodiversity loss. The regulation is part of a larger strategy, first presented in the 2019 Commission Communication on Enhancing EU Action to Protect and Restore the World's Forests.

Specifically, the EUDR seeks to prohibit the import and trade of seven critical commodities: coffee, cocoa, soy, beef, palm oil, rubber, and wood, along with specific derived products linked to deforestation or forest degradation in the European market.

This regulation is relevant, as the EU imports account for 13-16% of global deforestation, even though the EU constitutes only 7% of the world's population.

Under the new regulation, any operator or trader wishing to place these commodities on the EU market or export them must provide evidence that the products do not come from recently deforested land or contribute to forest degradation. The rules aim to ensure that the products consumed in Europe do not contribute to the mentioned impacts, both within the EU and globally. They also target a reduction of at least 32 million metric tonnes of carbon emissions annually due to EU consumption and production of these commodities, addressing all forms of deforestation driven by agricultural expansion related to the regulated products, as well as forest degradation.

- **How the EUDR affect the packaging industry?** The regulation, though focused on commodities linked to deforestation, also impacts packaging materials derived from those commodities. Paper and cardboard packaging will fall under the scope of the EUDR, meaning companies that use wood-based packaging will need to prove that their products do not come from recently deforested areas or contribute to the degradation of forests. As a result, paper-based packaging manufacturers and users will need to adopt strict due diligence measures and possibly reevaluate their sourcing strategies to ensure compliance.
- **Penalties** The EUDR sets out various penalties for non-compliance, including fines of up to 4% of a company's annual EU revenue. In addition, companies could see their products or earnings confiscated. Details of non-compliance incidents will be published on the EU Commission's website, potentially leading to further reputational harm.

Next Steps

Now, the European Parliament and the Council must continue the process, which should approve the amendment before the December deadline established previously by the regulation, possibly through an expedited procedure. The Parliament may choose to hold a direct plenary vote, skipping the typical committee review. Additionally, if both the Council and Parliament support the Commission's proposal without alterations, they could bypass the triologue negotiations entirely.

[Further information](#)

COUNTRY SPECIFIC NEWS



DRAFT LAW: RECYCLED CONTENT IN PACKAGING

USA - The "Accelerating a Circular Economy for Plastics" bill aims to modernize U.S. recycling, requiring 30% recycled content in plastic packaging by 2030.

[Further Information](#)



EPR PACKAGING BASE FEES

UK - Details of initial extended producer responsibility (EPR) packaging base fees for the UK have been published, set to begin in 2025.

[Further Information](#)



PLASTIC BAG BAN

USA – CALIFORNIA - The law takes effect on January 1, 2026, prohibiting plastic bags at checkout and requiring consumers to use reusable bags.

[Further Information](#)



DRS FROM 2027 ONWARDS

UK - The UK's deposit return scheme will be implemented by October 2027, aiming to collect over 85% of returnable drinks containers.

[Further Information](#)



DATA LABEL STANDARDIZATION

USA – CALIFORNIA - Requires food manufacturers to use standardized date labels: "Best If Used By" for quality and "Use By" for safety, starting July 1, 2026.

[Further Information](#)



NEW LABELLING OBLIGATIONS

SPAIN - Starting January 2025, all packages must be clearly labelled with the appropriate disposal pictogram to improve waste separation and recycling.

[Further Information](#)



REQUIREMENTS TO RECYCLE EVENT WASTE

USA – ILLINOIS - The law requires large facilities to recycle and compost materials such as glass, aluminum, cardboard, and plastic in events starting January 1, 2025.

[Further Information](#)



PROPOSED AMENDMENTS TO PACKAGING WASTE ACT

POLAND - To ensure effective deposit and return systems, the proposed draft strengthens supervision, clarifies licensing, introduces exemptions, collection points, and adjusts VAT regulations.

[Further Information](#)



SMALL PLASTIC BOTTLE ACT

USA – ILLINOIS - Starting July 1, 2025, hotels with 50 or more rooms cannot offer small single-use plastic personal care bottles; all hotels follow January 1, 2026.

[Further Information](#)



ORDER FOR PACKAGING AND EPR REQUIREMENTS

DENMARK - The Order establishes producer responsibility for residential and commercial packaging waste, defining 10 eco-grading material categories and design criteria.

[Further Information](#)

4EVERGREEN GUIDELINE

Circular Analytics is extremely proud to announce that, after months of intense work and an external consultation process, **Version 3 of 4evergreen's Circularity by Design Guideline** is now ready. The guideline has been published on 21st October 2024,

The document is the outcome of the collaborative efforts of experts from across the entire fibre-based packaging value chain. It presents recommendations for the design of fibre-based packaging and addresses all actors along the entire value chain, from manufacturers to retailers, including product designers. The updated version of the document further provides design recommendation tables for packaging intended to be recycled in flotation-deinking mills (PART II) and general guidance for packaging other than UBC to be recycled in specialised mills (Part III - FBCP).

Circular Analytics is involved in the project coordination of 4evergreen Workstream 2 since 2020.



[Further information](#)

CLIMATE CHANGE IMPACT OF PACKAGING VS. PRODUCT

When comparing the life cycle assessment (LCA) results of different packaging materials, it is often assumed that the materials and packaging formats are functionally equivalent. Functional differences can have a significant impact on product protection. Functionality and product loss can consequentially lead to higher environmental impacts indirectly caused by the packaging and should, therefore, be part of an assessment of packaging alternatives.

To examine this highly important topic, LCAs of the products need to be compared with packaging LCAs. The functionalities of the packaging formats must be analysed, and the results compared. Combining findings from this comparison allows to derive implications of resulting loss rates.

Calculating the LCAs of the product and packaging shows the relative environmental impacts of the packaging and puts it into perspective.

The impact of the packaging, in the impact category climate change, compared to the product typically accounts for between <1% to about 15% but can also go up to 25% in some rare cases. That shows that the packaging typically has a rather low impact compared to the actual product. Often, the packaging's impacts are below 1% underlining the importance of low loss rates by ensuring good product protection and functionality.

Every product is subjected to various external influences during its life cycle. This can be storage temperatures, humidity, mechanical stress etc. It is important that the packaging can withstand those conditions and fulfil its purpose of product protection and, therefore, reduce loss rates and consequentially the environmental impacts.

While loss rates for different food products can be found for different life cycle stages (retail level, consumer level, etc.), literature currently lacks a detailed distinction of loss rates between different packaging materials and formats. This makes a numerical assessment and comparison difficult.

Table 2 shows the default loss rates provided by the European commission per type of product during distribution and at the consumer level, including restaurants, providing an average over several products and packaging formats. These rates include spoiled products, losses due to breakage and emptiability. The latter is an important factor as product loss, due to a bad emptiability attributable to inefficient packaging design, can be up to 30%.

Product category	Loss rate at retail level	Loss rate at consumer level
Fruits and vegetables	10%	19%
Frozen food	0.6%	0.5%
Healthcare	5%	5%
Cosmetics	5%	5%
Lubricants and oils	1%	0%
Plant and garden supplies	1%	0%

Table 2: Default loss rates per type of product during distribution and at consumer (including restaurants), data taken from (European Commission, 2021)

The lack of concrete numerical data that helps assess the functional differences between packaging materials and formats only allows to derive implications from the available data. A comparison of the LCA results of a product and two different packaging formats enables calculating a break-even product loss rate, which would justify choosing the packaging with the higher environmental impact. If packaging with higher environmental impacts can reduce the loss rate by at least the calculated break-even loss rate, the use of this packaging results in a lower overall environmental impact. The combination of the break-even product loss rate with the functionality comparison, as well as the default loss rates, can be used to estimate whether the reduction is plausible. This enables an assessment of which packaging is the most sustainable choice for a certain product system in a specific use case. Equation 1 shows the formula for calculating the break-even loss rate.

Break even product loss rate [%]

=

impact packaging option 1

−

impact packaging option 2

impact product

∗ 100

Equation 1: Break-even product loss rate

All in all, LCA assessment of the packaging gives only limited information, it should be combined with the product loss rates because a packaging format with higher carbon footprint could be the more sustainable solution when it reduces food loss. An example for a full sustainability assessment, a number of additional parameters, such as packaging weight, littering effects and recyclability, have to be taken into account.



PACKAGING COCKPIT AND PREZERO AT FACHPACK 2024

From September 24th to 26th 2024, we, Packaging Cockpit, together with our partner PreZero, were present at the FACHPACK in Nuremberg. The trade fair provided us with the opportunity to engage in numerous exciting conversations and gain valuable insights into the latest developments in the packaging industry. We would like to sincerely thank all visitors, business partners, and colleagues for the interesting exchanges and the trust placed in us. FACHPACK 2024 was a resounding success! We're excited to build on the new connections we made and collaborate on shaping the future of sustainable packaging.

NEW EXCEL TEMPLATE AND CUSTOMIZABLE DATA FIELDS: ENHANCE YOUR PACKAGING MANAGEMENT

We're excited to introduce a new Excel template for packaging units, designed to streamline your workflow. This template includes all the fields available in the Packaging Cockpit and can be easily downloaded directly from the tool. Optimized for SQL, it allows you to populate data from external tools using your own SQL query. Once completed, simply upload the filled template back into the Packaging Cockpit, where your data can then be viewed and edited.

Additionally, we have developed a feature that allows us to create custom data fields for packaging units and systems. This gives you complete control to manage all the information relevant to your packaging or product. You choose which data fields you need and specify the type of information to be stored in each field. We then create a personalized data profile tailored to your requirements. This feature is currently available upon request only



CIRCULAR ANALYTICS EVENTS

03.-05.12.2024 SMITHERS DIGITAL PRINT FOR PACKAGING EUROPE

Digital Print for Packaging conference is the go-to forum for all professionals working within this dynamic and rapidly-growing area of the print market.

Circular Analytics' contribution:

Presentation on A ROADMAP TO COMPLIANCE - NAVIGATING THE PACKAGING AND PACKAGING WASTE REGULATION (Charlotte Neumair)

Location: Amsterdam

[participation fee and further information](#)

28.-29.01.2025 IMH SMART PACKAGING CONFERENCE - GERMAN ONLY EVENT

Topics: PPWR Update | Post-Consumer-Recyclate | recyclable packaging | monomaterial

Circular Analytics' contribution:

- 28.01.2025 Chair (Charlotte Neumair)
- 29.01.2025 Presentation on PACKAGING MINIMISATION (Lina Wimmer)

Location: Hotel Schani Wien (Karl-Popper-Straße 22, 1100 Wien)

[participation fee and further information](#)



Strategies for a Transition to Circular Economy

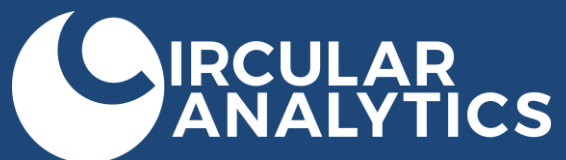
We specialize in assessing and comprehensively optimizing the sustainability of packaging – our goal is to develop circular and sustainable solutions for our clients.

We are internationally oriented and offer the following range of services:

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[Regulatory Research](#)
[Life Cycle Assessment](#)
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