CIRCULAR ANALYTICS
PACKAGING NEWSLETTER

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EDITORIAL

This edition highlights key developments shaping the European packaging landscape.

The publication of the PPWR Guidance and the FAQ provide useful clarification, though some uncertainties remain, early action is essential. At the same time, ongoing country-specific developments underline the need to balance EU requirements with national rules.

We also cover increasing scrutiny of PFAS in food packaging, introducing a risk matrix to support consistent assessment and prioritization. In parallel, the discussion on packaging end-of-life is shifting toward real recycling outcomes, influencing future design decisions.

Moreover, this issue contains updates from the Packaging Cockpit, including the preparation and creation of the PPWR Declaration of Compliance and finally, an outlook to upcoming events is provided.

Thank you for your continued interest and engagement as we navigate these regulatory challenges together.

Best regards,
Your Circular Analytics Team

NAVIGATING THE NEW ERA OF PACKAGING: EUROPEAN COMMISSION RELEASES KEY PPWR GUIDANCE AND FAQ

The transition towards a circular economy for packaging in Europe has reached a significant milestone. Following the adoption of the **Packaging and Packaging Waste Regulation (PPWR)**, the European Commission has now published two essential documents designed to support industry stakeholders and Member States in navigating the complex transition: a comprehensive **Guidance Document** and a detailed **Frequently Asked Questions (FAQ)** set.

As the PPWR prepares to replace the old Directive 94/62/EC, these documents provide the "interpretative compass" necessary for businesses to align their operations with the upcoming requirements.

Why This Matters for Your Business

The PPWR introduces harmonized rules across all 27 Member States, mostly eliminating the fragmented national implementations of the past. With the general application date of **August 12, 2026**, the window for adaptation is closing. The newly released documents clarify high-stakes areas such as (among others):

- **Definitions and Scope:** Clearer distinctions on who is considered a "manufacturer," "producer," or "importer," and which items officially fall under the definition of packaging.
- **PFAS Restrictions:** Confirmation that restrictions on PFAS in food-contact packaging will apply from August 2026, with no general "sell-through" period for non-compliant stocks.
- **Recyclability & Design for Recycling (DfR):** Insights into the performance classes (A to D) and how packaging must be designed to ensure it can be effectively collected, sorted, and recycled at scale by 2030.
- **Assessment of conformity:** Insights into the operational details regarding the Declaration of Conformity and the Technical Documentation.

Looking Ahead

The Commission has emphasized that these “living documents” are not static. While the Guidance provides a stable interpretative notice across 33 thematic sections, the FAQ will be updated regularly as new implementation challenges arise.

For companies operating in the EU, the message is clear: Compliance is no longer a distant goal but an immediate operational requirement.

We recommend reviewing these documents in detail to assess your portfolio. Understanding these interpretations today will be the difference between a smooth transition and costly market access issues starting with August 2026.

We are happy to support you on your PPWR journey.
For further information please contact lina.wimmer@circularanalytics.com

COUNTRY SPECIFIC NEWS

EXEMPTION FOR PALLET WRAPPINGS AND STRAPS FROM 100% REUSE REQUIREMENT ADOPTED

EU - The Commission exempts pallet wrappings and straps from the PPWR 100% reuse obligation for intra-company, linked-enterprise, and domestic transport, citing disproportionate costs, while broader reusable packaging targets remain in effect from 2030.

Further Information

ORDER ON PACKAGING REQUIREMENTS AND EXTENDED PRODUCER RESPONSIBILITY FOR PACKAGING WASTE

DENMARK - The amendments set maximum fees for municipal packaging waste, adjust temporary producer payments, apply weight-based density factors, clarify commercial waste compensation, update information obligations, and revise distribution keys in Annex 8.

Further Information

PROPOSAL FOR 2026–2028 PRODUCER COMPENSATION AND AMENDMENTS TO PLASTIC PRODUCTS DECREE

FINLAND - The proposal sets 2026–2028 producer compensation for certain single-use plastic products, amends related decrees, includes nicotine pouches as plastic items, and aligns national rules with EU plastic and packaging legislation.

Further Information

ITALY PROPOSES BIODEGRADABLE PACKAGING REQUIREMENTS

ITALY - Italy's draft law would require certain single-use plastic packaging to be biodegradable and compostable, introduce compliance rules and exemptions, and set penalties for non-compliance.

Further Information

CHILE REGULATION ON SINGLE-USE PLASTICS AND PLASTIC BOTTLES – LAW NO. 21.368

CHILE - Chile's Law 21.368 regulation sets compostable plastics standards, labeling, recycled-content requirements, QR traceability, returnable bottle mandates, and public-access certification, impacting manufacturers, importers, and food-service businesses from January 2026.

Further Information

AUSTRIA MAKES SUSTAINABILITY REPORTING MANDATORY

AUSTRIA - Austria approved legislation transposing the CSRD into national law, establishing clear, binding sustainability reporting requirements. Companies must now integrate ESG practices strategically, enhancing transparency and long-term sustainability performance.

Further Information

ESTONIA REFORMS WASTE CLASSIFICATION AND LIST OF WASTE REGULATION

ESTONIA - Estonia's amendment updates waste classification rules by introducing sampling principles, aligning hazardous waste criteria with EU legislation, adding more detailed waste codes, and merging separate waste lists to reduce regulatory fragmentation. It also strengthens waste reporting through a new comments field in the waste register.

Further Information

ACT ALIGNING NATIONAL PACKAGING LAW WITH EU REGULATION 2025/40

GERMANY - The draft bill aligns national packaging law with EU Regulation 2025/40, expanding producer responsibility, regulating registration, recycling, reporting, deposits, recycled content, and mandatory reusable packaging for single-use food and beverage containers.

Further Information

AMENDMENTS TO WASTE, PACKAGING, AND SINGLE-USE PLASTIC LEGISLATION DRAFT

LUXEMBOURG – The amendments revise waste, packaging, and single-use plastic laws, aligning them with EU standards, simplifying provisions, and incorporating Council of State guidance to ensure compliance and avoid constitutional penalties.

Further Information

INDIA PROPOSES NEW DEFINITIONS FOR FOOD CONTACT PACKAGING

INDIA - Draft amendments introduce new definitions for food contact packaging, materials, and processes, including NIAS, modified atmosphere, and aseptic packaging, aiming to clarify safety standards and improve regulation of food packaging.

Further Information

FEDERAL BILL PROPOSES NATIONAL STANDARDS FOR RECYCLED CONTENT AND LABELING

USA - The Recycled Materials Attribution Act, still under consideration, would create nationwide recycled content and recyclability standards, updating the FTC Green Guides and harmonizing claims for brands, recyclers, and consumers once enacted.

Further Information

GEORGIA INTRODUCES PACKAGING EPR AND BEVERAGE CONTAINER DEPOSIT BILL

USA, Georgia - Georgia's HB 1237 proposes an EPR program for packaging, paper products, and beverage containers, with minimal exemptions and a deposit return system, expanding the state's role in producer responsibility and recycling regulation.

Further Information

CALIFORNIA BILL AB 2253 SEEKS STRICTER RECYCLED CONTENT AND MASS BALANCE RULES

USA, California - California's AB 2253, under committee review, would expand recycled content regulations to all products, prohibit credit-based mass balance accounting, and require claims reflect actual physical recycled content, significantly tightening state standards.

Further Information

CIRCULAR ANALYTICS NEWS

DEVELOPMENT OF A RISK MATRIX FOR ASSESSING PFAS IN FOOD PACKAGING

Minimising substances of concern in packaging is a core objective of the European Union's Packaging and Packaging Waste Regulation (PPWR), and Article 5 specifically requires that packaging be designed and manufactured to minimise such substances throughout the entire lifecycle. This complements existing legislation governing the safety of food contact materials. Per- and polyfluoroalkyl substances (PFAS) pose a particular challenge due to their persistence, chemical diversity, and documented use in certain food contact materials.

Not all packaging present the same level of risk: certain materials are more likely to contain PFAS, while others are considered low risk. With the new EU PFAS concentration limits coming into effect on 12 August 2026, companies must be prepared to comply, but many practical questions remain unresolved, such as which packaging formats need testing or which methods should be used. Since testing every packaging type is practically impossible, a smart, risk-based approach is essential to prioritise efforts and focus resources where they are most needed.

Based on these requirements, we have developed a structured approach to assess PFAS risk in packaging. This scientifically grounded framework supports the conformity assessment of food packaging by helping to identify packaging with a higher PFAS risk and enabling targeted testing where it is needed to ensure compliance with regulatory requirements.

To systematically assess and classify food packaging based on their PFAS risk, a PFAS risk matrix has been developed. The matrix combines three key elements: a comprehensive screening of PFAS studies, regulatory and institutional reports, and typical areas of application; a constituent analysis that examines how PFAS are used in packaging materials and identifies their functional roles; and contextual modifiers that take into account additional factors such as industry practices, geographic sourcing, and processing aids, which may influence the presence or risk of PFAS contamination.

By combining these factors, packaging materials are classified into four risk categories based on the likelihood of them containing PFAS:

- Class 1: Very low risk – PFAS are not technologically necessary, and contamination is not expected.
- Class 2: Low risk – PFAS are not technologically necessary, but contamination is possible.
- Class 3: Medium risk – Known and historically documented PFAS applications exist.
- Class 4: High risk – Typical areas of PFAS application or high contamination risk are present.

This risk classification framework enables targeted prioritisation of packaging for further testing and management, ensuring that resources are efficiently allocated towards higher-risk materials.

The approach and methodology for assessing PFAS in food packaging are described in detail in a recent study by Wack, Apprich, Bergmair, and Tacker, "**Development of a Risk Matrix for Assessing PFAS in Food Packaging**" (Foods, 2026).

The full article can be found here: https://doi.org/10.3390/foods15071183

PACKAGING END-OF-LIFE IN EUROPE: LOWER RECYCLING AND HIGHER MISMANAGEMENT RATES THAN EXPECTED

What are End-of-Life rates?

In a broad sense, an end-of-life (EoL) rate describes the fate of packaging after its use. It's the share of material that ends up in a specific waste treatment pathway. Examples include the share of paper packaging sent to incineration or the share of plastics turned into recycled material.

Recycling: Unclear scopes and possible overestimation

The definition above already hints at a key question: Do End-of-Life rates account for sorting and/or other kinds of process losses (i.e. contaminations like plastic foil in paper packaging)?

The Packaging and Packaging Waste Regulation (PPWR) sets guidelines for calculating the achievement of recycling targets (European Parliament and Council, 2025):

- The measured weight of the packaging waste entering recycling should be used (considering sorting and other preliminary operations).

- Output of any sorting operation can be used, given that
    - this output is subsequently recycled;
    - materials rejected in subsequent processing steps are excluded from the waste reported as recycled.

- Average loss rates should only be used if no reliable data is available.

The table below shows recycling rates, average loss rates published by the German Umweltbundesamt and amended recycling rates that account for these losses.

Table 1: Recycling rates (for EU27 in 2023; Eurostat, 2025), average loss rates (for 2022 in Germany; Umweltbundesamt, 2024) and recycling rates considering these loss rates (based on own calculation). German rates for 2022 are used because no European-wide values were found and as of 13th April 2026 the average loss rates for 2023 are not available yet)

Packaging material	Recycling, EU27, 2023 [%]	German average loss rate, 2022 [%]	Amended recycling rate [%] (own calculation)
Plastic	42.1	19.6	33.8
Paper	87.0[1]	6.3	81.5
Glass	74.9[2]	5.3	70.9
Thin sheet / steel	84.4[3]	3.2	81.7
Aluminium	67.5	32.8	45.4

Interestingly, Eurostat's recycling rate for plastic is notably higher than the corresponding rate reported by the European Commission's Joint Research Centre (JRC, 2025): **42.1%** for 2023 versus **34.6%** for 2022. Applying the German Umweltbundesamt's average loss factor, Eurostat's recycling rate is reduced to **33.8%,** which is much closer to JRC's recycling rate of 34.6%.

The JRC defines the recycling rate as waste sent to recycling, corrected for pre-consumer waste entering recycling, divided by packaging waste generated minus exported waste (JRC, 2025). Pre-consumer waste is waste occurring before consumption in manufacturing. Since the denominator is waste generated, only the share of recycling that originates from this waste should be counted. By subtracting exported waste from the total, this approach implicitly assumes that all exported waste is recycled. If, instead, we assume that none of the exported waste is recycled, the recycling rate drops to 33.8%.

Mismanaged waste

In 2019, an estimated **22 Mt of plastics were leaked into the environment** globally (OECD, 2022). This is roughly comparable to the EU27's plastic packaging waste of 2022 (19.71 Mt, or about 89.5% of 22 Mt; JRC, 2025). The by far largest share of the leakage originated from mismanaged waste; other sources include marine activities, tyre abrasion and waste water sludge (OECD, 2022). This raises the question: What is mismanaged waste?

The OECD defines mismanaged waste as either (OECD, 2022)

- collected and burned in open fires, dumped in water bodies or disposed of in unsanitary landfills/dumpsites
- not collected waste such as uncollected litter

Eurostat does not consider mismanaged waste. Yet, the headline that **50% of marine litter derives from packaging** (European Commission, n.d.), draws attention to this topic. The following numbers show the share of mismanaged plastic waste in different contexts.

- Overall plastic waste: **4.9%** in 2019 (own calculation based on OECD, 2022)
- Plastic packaging and small items: **6.1%** in 2018 (Winterstetter et al., 2023)
- Packaging plastic waste: **8.1%** in 2022 (JRC, 2025)

Beyond plastics, we found a lack of data. Available are local litter item counts, but they hardly allow for scaling national or international EoL rates.

For packaging materials besides plastics, we found a lack of data. Available are local litter item counts such as data on litter in a Danish river (Haseler and Mihut, 2026) or beach litter in Ireland (Environmental Protection Agency, 2024). However, these studies hardly allow for scaling national or international EoL rates. At the level of municipal solid waste, one noteworthy source is the What a Waste 3.0 report (World Bank, 2026). It covers waste generation, composition, and EoL pathways, including mismanaged fractions such as uncollected and openly dumped waste at global, regional and country levels.

In summary

- Some European recycling rates may underestimate losses
- Recycling rates are often not comparable with each other due to different definitions
- Mismanaged waste is excluded from Eurostat and lacking data on materials

Overall, these insights show that recycling rates and End-of-Life rates in general must be interpreted with caution, as methodological choices, data gaps, and unaccounted flows like mismanaged waste can influence how well they reflect reality.

PACKAGING COCKPIT NEWS

PPWR UPDATE: WEBINAR WITH ARA ON APRIL 15

The new EU Packaging and Packaging Waste Regulation (PPWR) introduces extensive obligations as of August 12, 2026, for all companies placing packaging on the EU market. Particularly relevant is Article 5, which significantly tightens requirements for “substances of concern” — including new limit values for heavy metals and PFAS in food contact packaging.

At the same time, a separate EU Declaration of Conformity (DoC) will become mandatory for each individual packaging type. This declaration confirms compliance with all requirements set out in Articles 5–12 and must follow the structure defined in Annex VIII. Without a valid DoC, packaging will no longer be allowed to be placed on the EU market.

Together with ARA, we demonstrated in a compact webinar on April 15 how these new requirements can be implemented in our tool. The focus was on PFAS assessment in accordance with Article 5, as well as the creation and management of DoCs, including technical documentation. The webinar provided practical insights into how PPWR requirements can be fulfilled efficiently and reliably.

PREPARATION AND CREATION OF THE PPWR DECLARATION OF COMPLIANCE (DOC) IN THE PACKAGING COCKPIT

The PPWR introduces new requirements for companies – and the Packaging Cockpit is evolving accordingly. Over the coming weeks, you will receive new features step by step to support you in the preparation and creation of your Declaration of Compliance.

Already available: PFAS-relevant materials

Since early April 2026, you can select new materials with an increased PFAS risk in the Packaging Cockpit. These materials form the basis for the PFAS risk assessment, which will be integrated into the tool at a later stage – an important first step towards a complete compliance assessment.

Data exchange with suppliers

In the coming weeks, the new data exchange feature will be released. This will allow you to share datasets directly with your suppliers and have them complete the missing information, helping you close all data gaps. All communication will take place within the tool interface, and the processing status of all requested datasets will always remain visible.

Creation of the Declaration of Compliance & Technical Documentation

Following the data exchange process, you will also be able — within the next few weeks — to generate a complete Declaration of Compliance, including Technical Documentation, directly as a PDF in the Packaging Cockpit. These documents will be automatically generated based on your input data and uploaded files.

For documents such as supplier declarations or PFAS test reports, a dedicated “Article 5” upload section will be available within the tool.

Your next step

Start now by selecting PFAS-relevant materials in the Packaging Cockpit to be fully prepared when the upcoming features are released. This will lay the foundation for the PFAS risk assessment, which will also be available in the Packaging Cockpit in the coming weeks.

If you have any questions, please feel free to contact us at any time at support@packaging-cockpit.com

FROM INSIGHTS TO IMPACT – LOOKING BACK AT INTERPACK 2026

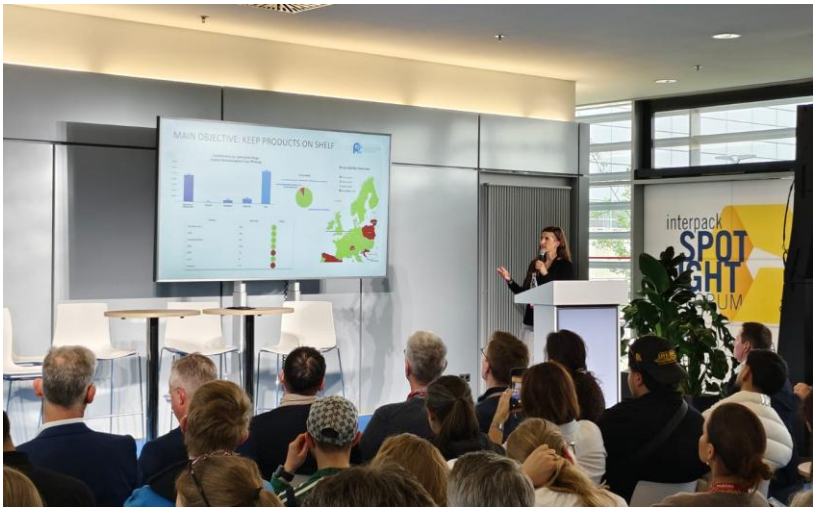
Location: Düsseldorf || Germany

At Interpack 2026, the global packaging and processing industry once again came together to exchange ideas, explore innovations, and discuss the future of sustainable packaging. Packaging Cockpit was proud to be part of the event with our own booth. Throughout the week, we welcomed a wide range of visitors – from long-standing partners to many new contacts interested in digital solutions for packaging data management and PPWR compliance.

Our daily live demo sessions provided practical insights into how companies can efficiently manage and analyse packaging data, including our latest features for creating PPWR-compliant Declarations of Conformity (DoC) and technical documentation.

A particular highlight was our participation in the Interpack SPOTLIGHT Forum on 7 May. As part of the pitch session “Chances & Risks of PPWR”, Packaging Cockpit joined other innovative companies and start-ups to present how digital solutions can support businesses in navigating upcoming regulatory requirements. The strong interest and engaging discussions clearly demonstrated the relevance of PPWR across the industry.

Our conclusion: Interpack 2026 was a great success for Packaging Cockpit. We strengthened existing partnerships, established many valuable new connections, and gained important insights into current market developments and challenges.



For further information

CIRCULAR ANALYTICS EVENTS

SAVE THE DATE: June 10th, 2026: Wiener Verpackungsdatenforum *(event held in German only)*

Location:
Hochschule Campus Wien, Favoritenstraße 232, 1100 Vienna & online

This event explores how to meet the requirements of the EU Packaging and Packaging Waste Regulation (PPWR) and build a data-driven packaging landscape. Experts will discuss key steps for compliance, data requirements across the supply chain, and legal as well as practical aspects of implementation. Topics include the Digital Packaging Transformation initiative, conformity declarations, Design for Recycling, and updates on PPWR implementation in Austria, Germany, and beyond—plus the latest on PFAS compliance and strategy.

To find out more about the event, please visit Wiener Verpackungsdatenforum (German only)

SAVE THE DATE: October 19th – 21st, 2026: SETAC Europe 27th LCA Symposium

Location: Bruges, Belgium

This symposium brings together experts and practitioners working on Life Cycle Assessment (LCA) to explore how life cycle approaches can support European sustainability initiatives. Under the theme “Designing Tomorrow: Advancing Life Cycle Approaches for European Sustainability Initiatives,” participants will discuss methodological advances, policy integration, and practical applications of LCA across industries and decision-making contexts.

Circular Analytics will be present at the symposium, presenting two LCA projects:

1. Quantifying Packaging-Induced Product Losses in Life Cycle Assessment: A Risk-Based Modelling Framework

2. Plastic packaging substitution can increase emissions and resource use impacts: evidence from European and US life cycle assessments

To find out more about the event, please visit SETAC Europe 27th LCA Symposium.

SAVE THE DATE: October 1, 2026: Austrian Packaging Day

Location: Hochschule Campus Wien, Favoritenstraße 232, 1100 Vienna

On 1 October 2026, Hochschule Campus Wien (HCW) will host the Austrian Packaging Day together with its cooperation partners. Representatives from the entire packaging industry will take part in the event.

You can look forward to the following topics:

- Packaging market - potentials and risks
- Packaging from the consumer's perspective
- PPWR: next steps & challenges
- Impulses from industry and trade
- Practical examples: Paper packaging - insights from the field & HCW project highlights

For 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:

PPWR Consulting
Regulatory Monitoring
Circularity Assessment
Life Cycle Assessment
Trainings

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