



CIRCULAR ANALYTICS

PACKAGING NEWSLETTER

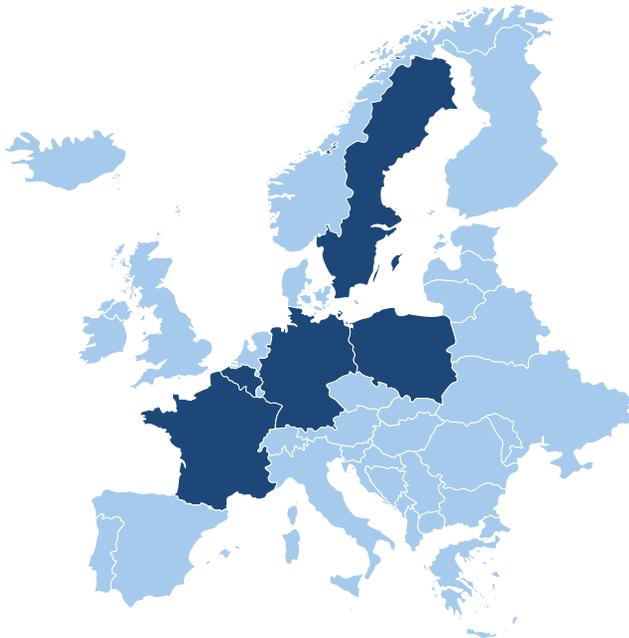


TABLE OF CONTENTS

- I. EDITORIAL
(p. 1)
- II. PPWR NEWS
(p. 2)
- III. COUNTRY SPECIFIC NEWS
(p. 3 - 4)
- IV. CIRCULAR ANALYTICS NEWS
(p. 4 - 8)
- V. PACKAGING COCKPIT NEWS
(p. 8 - 9)
- VI. CIRCULAR ANALYTICS EVENTS
(p. 10)

EDITORIAL – REGULATORY UPDATES & INSIGHTS

The regulatory requirements for packaging are becoming increasingly stringent, with PFAS compliance now a key priority under the Packaging and Packaging Waste Regulation (PPWR).

This issue highlights practical steps to achieve PFAS compliance. We also share insights into the JRC's technical proposal for EU-harmonised waste sorting labels.

Beyond the PPWR, we provide updates on country-specific legislation and examine the environmental impact of packaging beyond its carbon footprint, with a focus on freshwater eutrophication. Our PPWR Quick Check continues to support the early identification of risks and compliance gaps, helping companies to stay ahead of evolving requirements. This issue also contains news from the Packaging Cockpit and updates on upcoming events.

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

Best regards,
Your Circular Analytics Team

PPWR: INSIGHTS INTO JRC'S TECHNICAL PROPOSAL ON EU HARMONISED WASTE SORTING LABELS

The European Commission's Joint Research Centre (JRC) has presented a technical proposal for a uniform EU-wide sorting labelling system. The report is intended to support the drafting of the outstanding implementing acts of the PPWR (Articles 12 and 13), which are to be adopted by 12 August 2026.

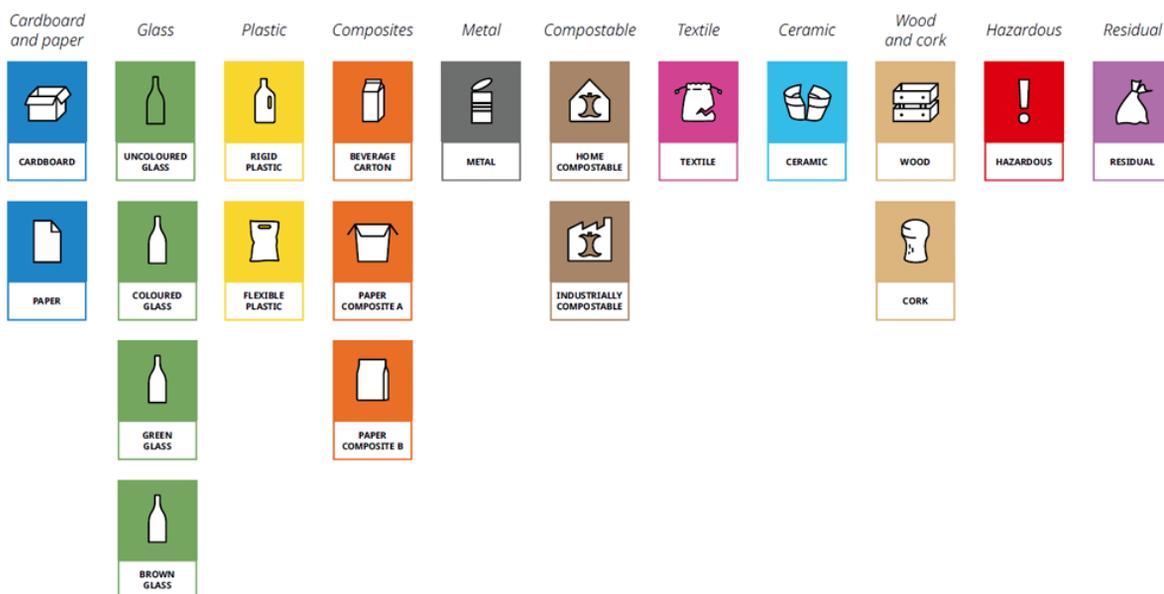
The approach is based on labelling according to material composition, which works uniformly across the EU, regardless of national collection systems. To avoid incorrect disposal, the JRC supplements the material logic with three special cases: residual waste, compostable packaging and packaging classified as hazardous.

The proposal also contains specific guidelines on feasibility in packaging design. It defines minimum dimensions for different label variants so that the labelling remains legible even on small packaging. The dimensions specified are 15 mm for the version with text, 10 mm for a reduced version and 6 mm for a version without text. Design rules for colour variants are also described, including black and white and transparent implementation, whereby sufficient contrast remains mandatory.

QR codes can provide additional information, but do not replace the physical label and should be placed directly next to it. The standard size is 20x20 mm and the minimum size is 10x10 mm, with the effectiveness to be verified through practical tests.

For multi-component packaging, the JRC recommends labelling either in a bundle or separately on each component. Deposit packaging may be exempted in full deposit markets, but combined labelling is recommended in mixed systems.

National labels are to be phased out by 12 August 2028 at the latest. Non-compliant packaging manufactured or imported before these deadlines may remain on the market for up to three years thereafter.



Meta-labels
(for receptacles only)



COUNTRY SPECIFIC NEWS



JRC PROPOSES EU HARMONISED WASTE SORTING LABELS

In 2026, the JRC published a technical proposal for EU-wide harmonised waste sorting labels under the PPWR, based on behavioural research to support correct consumer sorting.

[Further Information](#)



EU SETS BIO-BASED PLASTICS TARGETS IN PPWR FOR 2027

The EU plans to establish criteria and targets for biobased plastics under the PPWR in 2027. The new Bioeconomy Strategy, published on November 27, aims to boost demand and investment in biobased polymers.

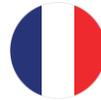
[Further Information](#)



AMENDMENT TO THE COOPERATION AGREEMENT ON PACKAGING WASTE MANAGEMENT

BELGIUM - This Cooperation Agreement updates the 2008 agreement on packaging waste management, aligning Belgian law with the PPWR. It clarifies EPR provisions and updates rules on litter from packaging, including SUP Directive items.

[Further Information](#)



FRANCE TO IMPLEMENT EPR FOR COMMERCIAL AND INDUSTRIAL PACKAGING

FRANCE - France's EPR for commercial and industrial packaging takes effect January 1, 2026. All companies supplying packaged goods must join an approved take-back system by July 1, 2026.

[Further Information](#)



GERMANY PROPOSES NEW PACKAGING IMPLEMENTATION ACT

GERMANY - BMUKN has launched consultations on a draft Packaging Implementation Act (VerpackDG) to replace the current Packaging Act and implement the PPWR. The draft strengthens EPR, with cabinet adoption expected in Q1 2026 ahead of the PPWR's entry into force in August 2026.

[Further Information](#)



AMENDMENTS TO THE ACT ON PACKAGING MANAGEMENT AND RELATED ACTS

POLAND - The draft amendment requires businesses to meet deposit-return obligations for beverage packaging, including reusable glass bottles. Companies can join the central system or operate their own collection schemes.

[Further Information](#)



SWEDEN MOVES TOWARD PPWR ALIGNMENT

SWEDEN - Swedish authorities are reviewing national packaging rules to ensure consistency with the PPWR. The process is expected to build on existing producer responsibility schemes and prepare the regulatory framework for upcoming EU requirements.

[Further Information](#)



BRAZIL ESTABLISHES NATIONAL REVERSE LOGISTICS FOR PACKAGING

BRAZIL - Decree No. 12,688 (Oct 21, 2025) creates a national system for collecting and recycling all plastic packaging, including disposable items. Starting January 2026, large companies must comply. Recovery targets begin at 32% in 2026 and rise to 50% by 2040.

[Further Information](#)



PROVINCIAL PACKAGING EPR TAKES EFFECT

CANADA, Nova Scotia - Nova Scotia's packaging and paper EPR program comes into effect on December 1, 2025. Producers must register with Circular Materials to fulfill annual reporting and compliance obligations.

[Further Information](#)



BLUE BOX PROGRAM TRANSITION

CANADA, Ontario - On January 1, 2026, Ontario completes its three-year transition to EPR for packaging and paper products. Households will benefit from a more convenient and comprehensive recycling system, fully funded by producers, relieving municipalities and taxpayers of recycling costs.

[Further Information](#)



TURKEY LAUNCHES NATIONAL CIRCULAR ECONOMY STRATEGY (2025–2028)

TURKEY- Turkey enacted its National Circular Economy Strategy and Action Plan: Covering six strategic areas, including packaging; the plan aims to boost resource efficiency, reduce waste and emissions and mobilise green investment:

[Further Information](#)



CALIFORNIA PREPARES FOR EPR PROGRAM IMPLEMENTATION

USA, California - California is expected to finalize its EPR program plan in mid-2026. The year 2026 will be dedicated to program planning and setup, with mandatory compliance beginning on or before January 1, 2027.

[Further Information](#)



COLORADO ADVANCES TOWARD EPR LAUNCH

USA, Colorado - Colorado's EPR program is progressing toward an early 2026 launch. Producers will begin paying producer responsibility dues in January 2026, with annual payments required thereafter.

[Further Information](#)



CIRCULAR ANALYTICS NEWS

FROM REGULATION TO ACTION: ACHIEVING PFAS COMPLIANCE

PFAS compliance for packaging will come **into force on 12 August 2026** (Art. 5 of the Packaging and Packaging Waste Regulation (PPWR)), in approximately 200 days, as one of the first provisions of the PPWR.

Packaging that comes into contact with food will then be prohibited from containing PFAS. Non-compliance will result in a **market ban**. While the PPWR specifies maximum PFAS and fluorine concentrations, it does not provide any further information on the methodology and procedure for achieving PFAS compliance

For most packaging and packaged food products, the **risk posed** by PFAS is **unknown**, which represents potential market, financial and reputational risks for companies. The existing timeframe also leaves little room for the development and market implementation of new packaging (including time for development, testing, and ensuring machine compatibility).

Therefore, **Packaging Cockpit** and **Circular Analytics** have developed a practical, scientifically based methodology for PFAS compliance in packaging. This methodology uses a **risk matrix** - as shown in the example of a steam tray on the next page - to classify all packaging materials according to risk, classifying the packaging materials results in an overall risk classification for the packaging.



**risk level 3:
medium risk**

		Risk Assessment		
Packaging Components	PE-Carton Tray	PE-EVOH-PA film	(paper label)	
Assessment	3	3	(2)	
Justification	Plastic film laminated onto cardboard	Use of tie layers / multilayer film; process aids (Antifog-Coating? → 4)	Adhesive + printing; no direct food contact	
Overall Result: risk level 3				
Supplier declaration + Detailed recipe + Test results Supplier / Random sampling tests				

PFAS risk assessment for a steam tray | PE-Carton Tray, PE-EVOH-PA film and paper label

A **recommendation for further action** is derived for each risk classification (no risk expected to high PFAS probability). This methodology **reduces testing effort and frequency** while ensuring PPWR-compliant documentation and reducing regulatory and liability risks. It can also be applied when packaging data is incomplete.

This new PFAS compliance methodology is gradually being integrated into the Packaging Cockpit. The Packaging Cockpit can already be used to document PFAS supplier confirmations and test results. As part of PPWR consulting projects, Packaging Cockpit and **Circular Analytics** are now carrying out assessments of the PFAS risk of packaging portfolios and checking for existing data gaps.

Want to learn more? Please contact:
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ENVIRONMENTAL IMPACT BEYOND THE CARBON FOOTPRINT: FRESHWATER EUTROPHICATION

Measures to counteract climate change are among the greatest challenges of our time. For companies, these challenges are increasingly regulatory in nature, as reflected in the Corporate Sustainability Reporting Directive and the European Sustainability Reporting Standards. These frameworks require companies to report not only on climate change impacts but also on a broader range of environmental topics. Beyond greenhouse gas emissions, global ecosystems, the biosphere, and climate systems are affected by multiple pressures. Accordingly, the ESRS also covers areas such as pollution, water quality, marine resources, biodiversity, and ecosystems.

Life cycle assessment (LCA) can serve as a tool to quantify environmental impacts. The Product Environmental Footprint, therefore, considers besides climate change 15 additional impact categories, one of which is introduced below: Freshwater eutrophication.

Freshwater eutrophication

This impact category describes the accumulation of phosphorus in freshwaters as a result of human activities. Obvious activities would include sewage discharges and intensively fertilised agriculture. However, the input from leaching of mining waste in the course of mining processes should not be underestimated here.

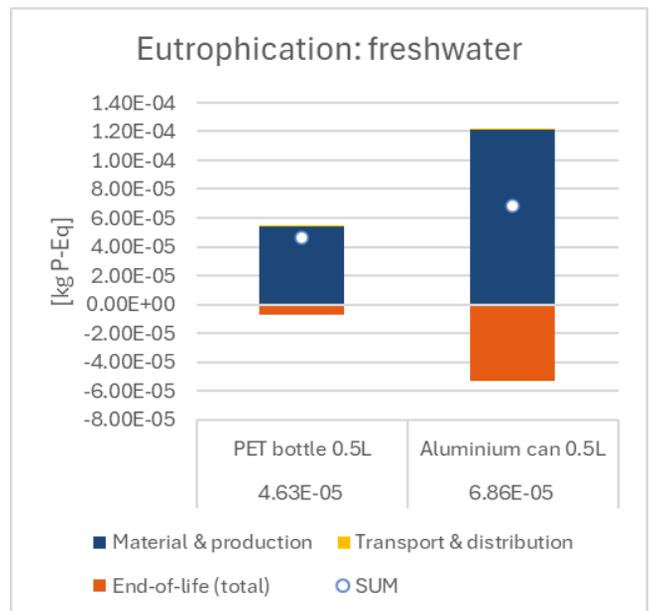
For this reason, an electricity mix that contains a high proportion of coal-fired power, for example, contributes significantly to freshwater eutrophication of packaging. Industrial and agricultural sources often exceed natural phosphorus inputs. The excess nutrients promote strong algae growth, which sinks to the bottom of the water body, where oxygen is consumed by decomposition processes. The lack of oxygen leads to ecological disturbances such as fish death – the water body tips over.

The LCA indicates the potential for freshwater eutrophication in kilograms of phosphorus equivalents (kg P-eq). This impact category is important for the assessment of packaging materials, as inputs can occur throughout their entire life cycle that impair water quality and increase the risk of algal blooms. Only eutrophication in freshwater ecosystems are recorded; marine and terrestrial eutrophication and nitrogen inputs are considered separately in their own impact categories. Richardson et al. (2023) show that both regional and global phosphate limits have been exceeded. Current anthropogenic phosphorus inputs into freshwater systems are approximately twice the limit defined as safe. For this reason, it is important to minimise environmental impact in eutrophication freshwater also in the area of packaging.

PET Bottle vs. Aluminium Beverage Can

A comparison of a 0.5 Liter PET bottle and an aluminium beverage can with regard to freshwater eutrophication (see Figure 1) shows clear differences in environmental performance. The aluminium can cause considerably higher impacts than the PET bottle (+48%). This discrepancy is largely due to the high energy consumption involved in primary aluminium production, which leads to significant phosphate emissions, particularly through leaching from coal mining spoils. In addition, leaching processes during bauxite extraction contribute further to the overall burden, although to a lesser extent.

PET production also relies on fossil energy sources, but its total electricity demand is significantly lower, leading to reduced impacts in this category.



Comparison of the environmental impact of two beverage packaging types in the impact category eutrophication freshwater | Post-consumer recycled content: PET bottle: 25%, Aluminium can: 60% | Region: Germany, EoL allocation: Circular Footprint Formula, LCIA method: EF3.1, Database: ecoinvent 3.11

At the end-of-life, both packaging options benefit from recycling and incineration. The environmental credits gained through the substitution of virgin materials or energy exceed the emissions produced during recycling and incineration. Because the gap between primary and recycled aluminium is larger than for PET, and because aluminium is recycled at a much higher rate (85% versus 48%), aluminium recycling yields greater credits overall.

Transportation plays only a minor role in freshwater eutrophication when compared with material production and end-of-life treatment. Overall, the choice of material and the associated production processes remain the dominant factors shaping the environmental footprint of both packaging solutions.

In addition to the use of recycled materials and the recycling rate, the electricity mix used is also an important factor for both types of packaging.

It should be noted that these results are based on specific assumptions regarding system boundaries, background data, electricity mixes, and end-of-life scenarios. Actual freshwater eutrophication impacts may vary depending on regional conditions, production technologies, and recycling infrastructures.

Conclusion

The analysis shows that effective strategies to minimise damage to ecosystems must go far beyond reducing greenhouse gas emissions. Accordingly, regulatory frameworks such as the CSRD and ESRS already require companies to assess relevant environmental impacts beyond climate change. One effective way to meet these requirements is to integrate additional impact categories, such as freshwater eutrophication, into life cycle assessments.

Only by conducting holistic assessments that capture the full range of relevant environmental impacts can companies develop sustainability strategies that are both compliant and resilient in the long term.

PPWR QUICK CHECKS

The EU Packaging Regulation (PPWR) introduces new packaging requirements that will come into force in August 2026. To provide companies with early guidance and prepare them for these obligations, Circular Analytics **launched the [PPWR Quick Check in 2025](#)**.

Since then, the format has been **successfully implemented for numerous clients** – in close **cooperation with [ARA \(Altstoff Recycling Austria\)](#)** and other strong partners. The aim of the Quick Checks is to systematically assess the current status of packaging solutions, classify regulatory requirements, and identify concrete next steps for implementing the PPWR.

The focus always lies on the follow question:

Where does the company stand today – and how can the PPWR be used as an opportunity for future-proof circular packaging?

During interactive workshops, existing packaging is examined and initial areas for action are identified. The topic of PPWR-oriented data management is also presented as a strategic success factor.

Circular Analytics has already gained insights from renowned companies:

One of the PPWR Quick Checks took place at **SalzburgMilch** in October 2025. This workshop clearly demonstrated the value of a structured introduction to the PPWR topic, regardless of industry or packaging portfolio.



PPWR Quick Check at SalzburgMilch

The PPWR Quick Check is therefore more than just an inventory: it is a starting point for further development and a means of achieving a more circular economy and sustainable competitive advantages.

[Click here for further information about the PPWR Quick Check](#)

PACKAGING COCKPIT NEWS

NEXT STEP TOWARDS PPWR COMPLIANCE: BILLA/BIPA AND SPAR RELY ON DIGITAL PACKAGING DATA

In December 2025, the companies BILLA/BIPA and SPAR Austria informed their private label suppliers about future requirements in packaging data management.

A key element of this communication is the introduction of the Packaging Cockpit as the central tool for the collection, processing, and sharing of packaging data. The goal is the systematic collection of relevant packaging information in order to meet the requirements of the PPWR.

This step lays an important foundation for the work of the Digital Packaging Transformation Initiative. The initiative focuses on standardized packaging data collection and supports companies in implementing PPWR requirements using the Green Deal Packaging Framework.

UPGRADE YOUR PACKAGING COCKPIT ACCOUNT WITH OUR NEW PACKAGES

While additional features continue to be available individually via our webshop, we are now also introducing three new structured upgrade packages tailored to different business requirements - making it easier to expand your Packaging Cockpit account in a scalable and strategic way.

Our Starter package covers the core functionalities for efficient data management and recyclability analysis.

The Pro and Pro+ packages are specifically designed for larger enterprises, offering increased user capacity and expanded data volume to support more complex organizational needs. In addition to the Starter Package, the Pro and Pro+ packages offer advanced features such as carbon footprint assessments and provide a comprehensive, end-to-end solution covering future PPWR requirements, while fully integrating functionalities related to CEN standards, PFAS, and Declaration of Conformity.

Any package can be enhanced with an interface to enable seamless integration with external customer systems, such as ERP or PIM platforms.

All packages are fully customizable and can be expanded with additional features to meet specific business requirements.

Get in touch with us at upgrade@packaging-cockpit.com to identify the package that best fits your business needs and explore how we can tailor a solution to support your long-term compliance and sustainability strategy.

LOOKING BACK: SUSTAINABLE PACKAGING SUMMIT UTRECHT 2025

In November 2025, the packaging industry came together in Utrecht for the **Sustainable Packaging Summit**, one of the leading international gatherings dedicated to driving sustainability across the packaging value chain.

Organised by Packaging Europe, the summit brought together global brands, start-ups, material innovators, policymakers, NGOs, recyclers and academic experts — creating a truly cross-disciplinary platform for exchange. With its interactive format and strong focus on collaboration, the event went beyond a traditional conference, fostering open dialogue around the most pressing challenges and opportunities in sustainable packaging.

Packaging Cockpit was proud to be part of this inspiring event.

We had the opportunity to engage in valuable conversations, strengthen existing partnerships and build new connections with stakeholders from across the industry. The open, forward-thinking atmosphere made it an ideal space for meaningful networking and knowledge sharing — exactly what is needed to turn sustainability ambitions into real-world impact.



SAVE THE DATE: March 11 – 13, 2026: Aicomp Summit 2026

Location: Vienna || Austria

From March 11 to 13, 2026, the Aicomp Summit 2026 will take place at the 25hours Hotel in Vienna's MuseumsQuartier. The event offers exciting insights into current developments and future topics in the digitalization of the packaging industry.

We are especially pleased that two of our colleagues will be represented at the Aicomp Summit:

- Manfred Tacker will give a presentation titled “**PPWR and Beyond – Upcoming Challenges for Packaging**”, providing an outlook on upcoming regulatory requirements and their impact on the packaging industry.
- Mathias Egger will present “**Introduction to the Initiative ‘Digital Packaging Transformation’**”, introducing a forward-looking initiative that enables the structured, efficient, and standardized collection of packaging data along the supply chain of large retail companies.

The Aicomp Summit is an ideal opportunity for professional exchange, fresh impulses, and networking.

[For further information](#)



SAVE THE DATE: April 22 - 23, 2026: openLCA Conference

Location: Berlin || Germany

The openLCA conference is about Life Cycle Assessments (LCA) and offers a platform for sharing the latest research findings, discussing methodological developments, and networking and collaborating in this field. We will be represented there with a poster presentation: **Consistent LCA Modelling for Packaging and Related Challenges**.

[For further information](#)



*In cooperation with our partner
Packaging Cockpit GmbH*

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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