

PPWR AND THE ROLE OF THE BOARD AND PAPER MANUFACTURER



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The proposed EU Packaging and Packaging Waste Regulation (PPWR) aims to reduce the environmental impact of packaging, harmonize regulations across the EU, and strengthen circularity. The regulation covers the entire value chain – from material production to the final management of packaging waste.

As the PPWR requirements evolve, material choice becomes increasingly important. The PPWR does not prescribe specific materials, but it will influence how they are used in practice. As a supplier, we take our role and responsibilities in the value chain seriously and are committed to supporting you.

The following pages outline our role in supporting PPWR compliance and highlight where responsibility lies across the packaging value chain.

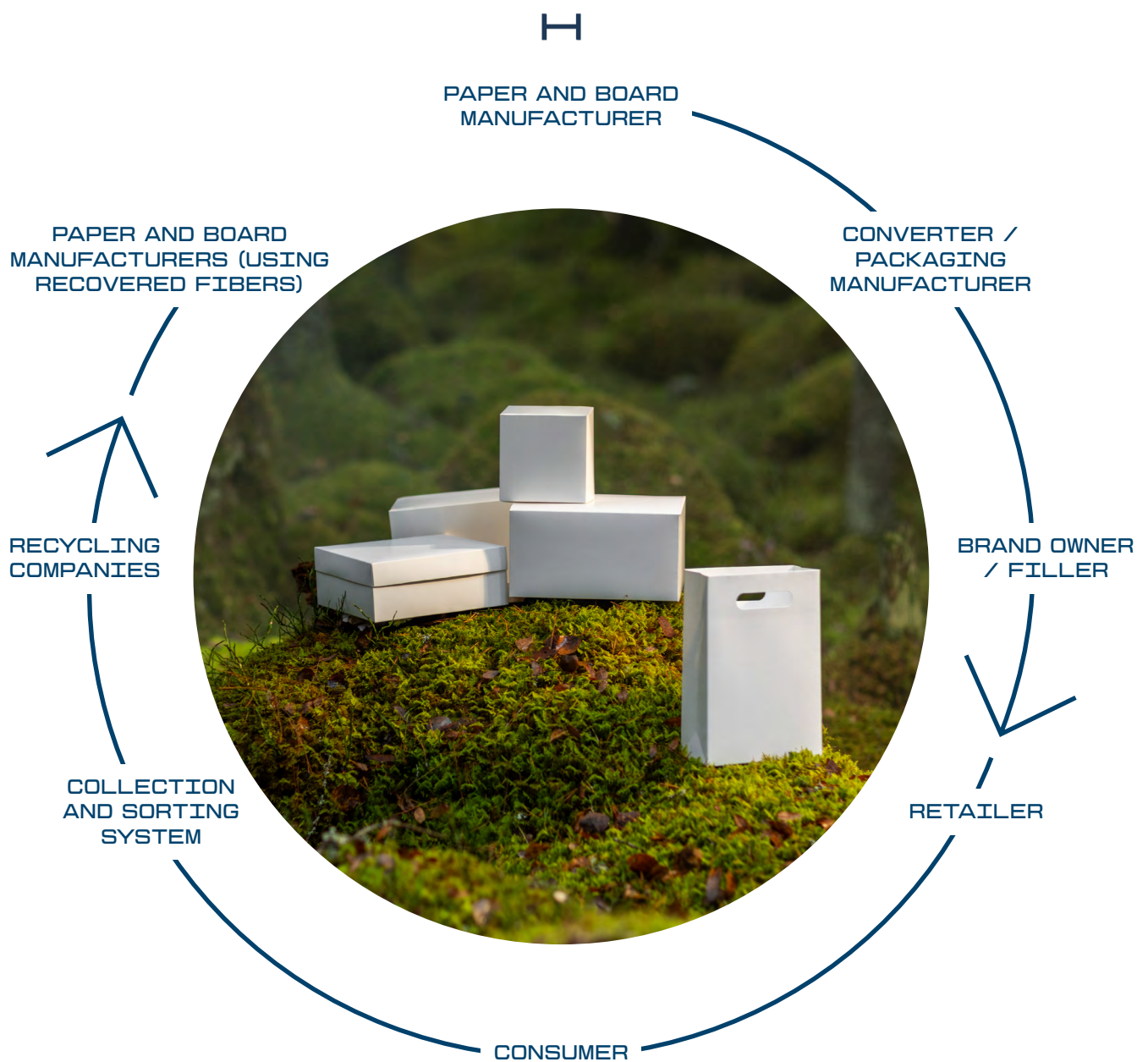
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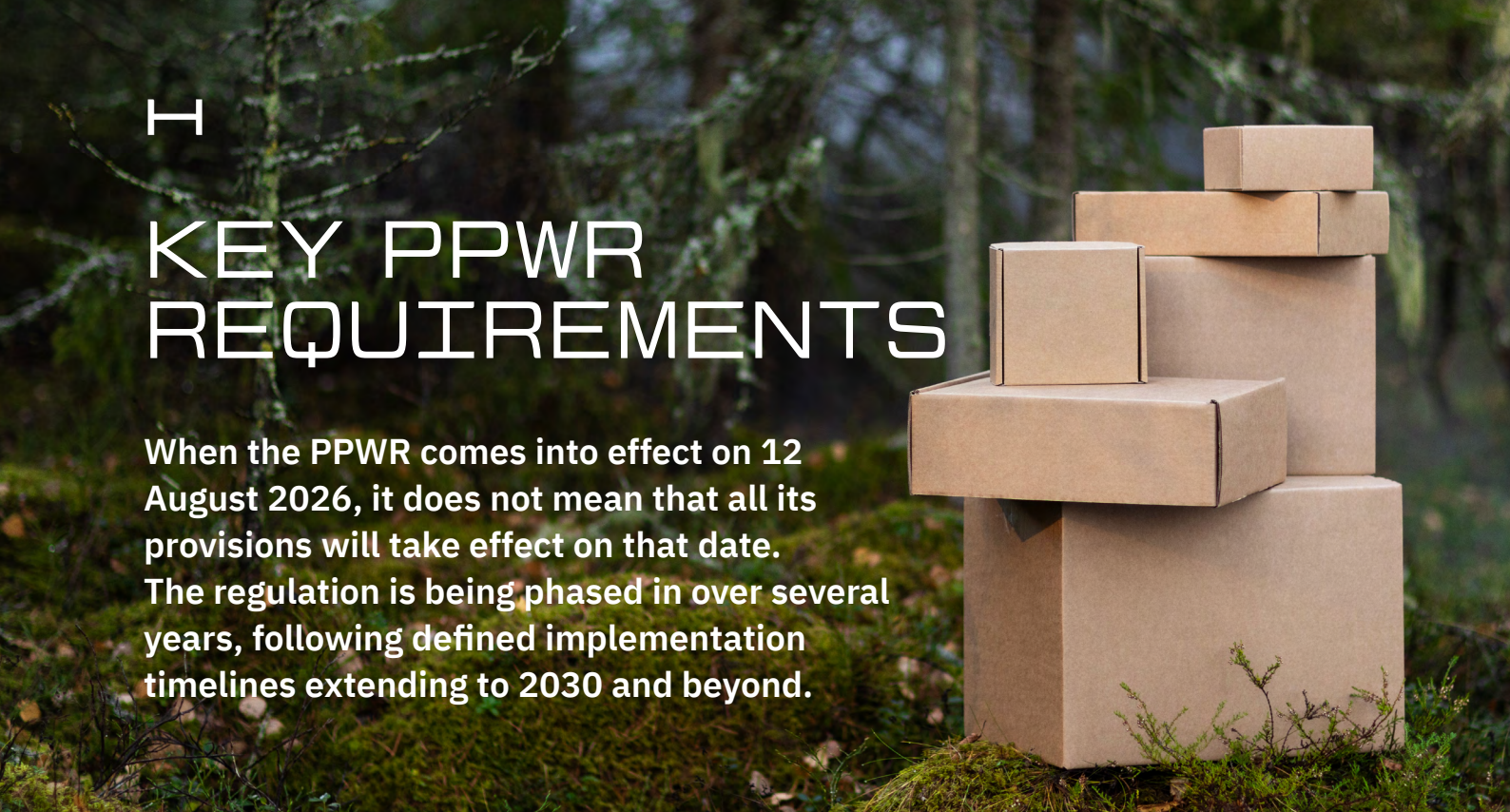
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WE ARE PART OF A CIRCULAR PACKAGING VALUE CHAIN

Roles in the circular value chain for paper-based packaging



A stack of several cardboard boxes of various sizes is arranged on a mossy forest floor. The background is a blurred forest scene with green foliage and tree trunks. The boxes are made of brown cardboard and are stacked in a somewhat haphazard manner, with some boxes partially overlapping others.

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KEY PPWR REQUIREMENTS

When the PPWR comes into effect on 12 August 2026, it does not mean that all its provisions will take effect on that date. The regulation is being phased in over several years, following defined implementation timelines extending to 2030 and beyond.

As we see it, the most important aspects of the PPWR that, as currently phrased, will affect fibre-based packaging include:

a) Design for recycling

All packaging must be recyclable by 2030, based on established criteria. This includes:

- Material selection
- Packaging construction
- Combination of materials

b) Recyclability in practice

Packaging must not only be technically recyclable but must also:

- Be collected at a relevant scale
- Be sorted and recycled within existing systems

c) Minimum recycled content for plastics

The primary focus is on plastics, although requirements may indirectly affect fibre-based solutions, for example in composite materials. Currently, only plastics are subject to mandatory recycled-content requirements for the production of new packaging.

d) Reduction of packaging and overpackaging

- Minimise material use
- Ban unnecessary packaging formats

e) Labelling and information

Requirements for clear labelling to facilitate sorting and provide consumer information.

The full text of the PPWR can be accessed here: [**Regulation \(EU\) 2025/40.**](#)

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HOW PAPER-BASED PACKAGING MEETS PPWR REQUIREMENTS

Paper-based packaging is well aligned with several key PPWR objectives. The advantages of paper-based packaging are driven both by the properties of the material and by effective packaging design and execution.

Paper packaging has one of the highest recycling rates of all packaging materials in Europe, reaching approximately 83%.* This is why paper packaging is exempt from mandatory recycled-content requirements, meaning that there remains scope for packaging to be produced using 100% fresh fibres, as its circular value chain is already well established and maintained.

The strength, versatility and design flexibility of paper-based materials support the reduction of packaging and overpackaging by enabling lightweight, right-sized solutions that use only the material necessary for protection and transport. In addition, its excellent printability facilitates clear labelling and consumer information, helping users identify, sort and recycle packaging when it is correctly marked.

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The question is not whether PPWR will affect your packaging — but how. The companies that start reviewing their packaging now will be in a much stronger position as requirements become clearer.

— Andreas Boo, Head of Sustainability and Regulatory Affairs

Further information on the recycling rate of paper products:

- Cefi, link: [Press Release Monitoring Report](#)
- Paper for recycling paperforrecycling.eu or at cefi.org.



ACTORS IN THE VALUE CHAIN AND THEIR ROLES

PPWR is based on the principle that responsibility lies with the actor that places the packaging on the market (Extended Producer Responsibility). In practice, however, compliance is achieved through collaboration across the entire value chain.



1. Raw material and material manufacturers (e.g., carton and paper manufacturers)

Role:

- Ensure that materials can contribute to recyclable and circular packaging
- Provide technical information about the properties of their materials
- Develop materials that meet future design requirements (e.g., barriers, printability, strength)
- Communicate limitations and recommended use
- Communicate that the paperboard, containerboard or paper material – which is used in the converting process for the finished package – complies with applicable PFAS limit values for food packaging requirements

Limitations:

- Do **not** control the final packaging design or functionality
- Are **not** responsible for ensuring that the final packaging complies with PPWR in its entirety

2. Converters / packaging manufacturers

Role:

- Packaging design (structure, lamination, printing, coatings)
- Selection and combination of materials
- Ensuring that the design meets recyclability requirements
- Testing and verifying functionality and durability

- A **key stakeholder** in PPWR compliance
- Has the greatest influence on whether a package meets legal requirements
- Support compliance with applicable PPWR labelling and information requirements or provide the necessary information and documentation where such obligations are not the responsibility of the brand owner/filler.

3. Brand owners / fillers (Often defined as the “producer” under PPWR)

Role:

- Hold legal responsibility for ensuring compliance with the PPWR, including fulfilment of applicable labelling and information requirements, unless these obligations fall to the manufacturer of unbranded packaging
- Select packaging solutions
- Comply with reporting obligations and producer responsibility schemes, including financial responsibility for Extended Producer Responsibility (EPR) systems

4. Recycling and waste management operators

Role:

- Collect, sort, and recycle packaging waste
- Maintain operational capability to handle their respective materials
- Provide feedback to the market regarding recyclability

HOW YOUR BOARD AND PAPER SUPPLIER CAN SUPPORT YOU

A board and paper manufacturer plays a crucial role by supplying materials that enable circular packaging.

What we as the manufacturer can guarantee

- The material's **inherent recyclability** according to established guidelines
- Performance characteristics (strength, barrier properties, food-contact compliance, etc.)
- That the material is designed to be part of **recyclable systems**
- Technical documentation (including PFAS information) and guidance for optimal use

What we as the manufacturer cannot guarantee

- That the final packaging complies with PPWR
- **The impact of:**
 - Coatings, laminates, or barriers added later
 - Printing inks, adhesives, or additives
 - Packaging construction and design choices
- How the packaging performs within real-world collection and recycling systems

While we can provide materials designed for circularity, PPWR compliance ultimately depends on the packaging placed on the market. Early material and design choices can therefore make a significant difference. We are happy to support you in selecting solutions that help meet both performance and regulatory requirements.

The following factors, typically managed by converters and brand owners, can have a significant impact on PPWR compliance:

- **Material combinations** (e.g., plastic coatings or multilayer laminates)
- **Design decisions** (e.g., complex structures that reduce recyclability)
- **Selection of inks, adhesives and additives**
- Packaging application (food, grease, liquids, etc.)
- **Local collection and recycling systems**



FIRST PPWR COMPLIANCE REQUIREMENT

— From 12 August 2026

From 12 August 2026, the PPWR will generally become applicable. For Holmen's customers, the PFAS requirement for food-contact packaging is likely to be the most tangible product restriction in the short term. PPWR covers all packaging, regardless of material, as well as all packaging waste. The PFAS limits set out in Article 5(5), however, apply only to food-contact packaging.

The following is an excerpt from the **Commission Notice Guidance document for Regulation (EU) 2025/40 on packaging and packaging waste**

Read the guidance document in its entirety: [EUR-Lex - C\(2026\)3702 - EN - EUR-Lex](#)

An additional [FAQ document](#) was also published by the European Commission in August 2026, for further clarification.



Article 5(5) states: 'From 12 August 2026, food-contact packaging shall not be placed on the market if it contains per- and polyfluorinated alkyl substances (PFAS) in a concentration equal to or above the following limit values to the extent that the placing on the market of packaging containing such a concentration of PFAS is not prohibited pursuant to another Union legal act:

- (a) 25 ppb for any PFAS as measured with targeted PFAS analysis (polymeric PFAS excluded from quantification);
- (b) 250 ppb for the sum of PFAS measured as the sum of targeted PFAS analysis, where applicable with prior degradation of precursors (polymeric PFAS excluded from quantification); and
- (c) 50 ppm for PFASs (including polymeric PFAS); if total fluorine exceeds 50 mg/kg the manufacturer, importer or downstream user as defined respectively in Article 3, points (9), (11) and (13) of Regulation (EC) No 1907/2006 shall, upon request, provide to the manufacturer or the importer as defined respectively in Article 3(1), points (13) and (17), of this Regulation proof of the quantity of fluorine measured as content of either PFAS or non-PFAS in order for them to draw up the technical documentation as referred to in Annex VII to this Regulation.'

Commission's interpretation:

Food contact packaging is packaging which is intended to be brought into contact with food or is already in contact with food and was intended for that purpose, as per the scope of EU food legislation.

The surveillance authorities as referred to in PPWR, based on Regulation (EU) 2019/1020 on market surveillance rules, are competent to verify compliance with the PFAS limits.

Several protocols and methodologies to test the presence of PFAS in different matrices exist, but there is no harmonised methodology for PFAS in food contact packaging at EU level. In this context, the following stepwise approach, based on state-of-the-art analytical capacities and a meta-analysis of PFAS testing of the relevant matrices, is recommended to enforce the PFAS limits as of their application date, i.e. 12 August 2026:

1. Total Fluorine (TF) quantification (step 1): If TF is below 50 mg/kg (16), sample could be considered compliant.
2. If TF is above 50 mg/kg, methods such as pyrolysis-GC/MS can be used to confirm whether the fluorine is organic (PFAS) or inorganic in step 2. If the organic fluorine is below 50 mg/kg, the sample could be considered compliant.
3. Direct TOP (total oxidizable precursors) analysis is recommended to check compliance with the 25 µg/kg (17) and 250 µg/kg concentration limit in step 3.

On the basis of the evidence currently available to the Commission, all samples compliant with test (1) are also compliant with tests (2) and (3).

This is without prejudice to the application of Regulation (EU) 2017/625 to the controls performed for the verification of compliance with the rules on materials and articles intended to come into contact with food, including the rules laid down in Article 5(5) of the PPWR.

As regards packaging containing PFAS, which has been produced before 12 August 2026, the PPWR does not foresee a transitional period for the exhaustion of stocks. Therefore, food-contact packaging placed on the market after 12 August 2026 must comply with the PFAS limits laid down in this Regulation, while packaging placed on the market before 12 August 2026 may remain on the market and does not need to be withdrawn. There are no exceptions regarding packaging containing recycled material.

In general, sales and grouped food-contact packaging are placed on the market when they are filled, insofar as the final processing steps such as the sealing processes, may influence compliance of the packaging, while transport and service packaging are placed on the market empty.

In line with the Blue Guide on the implementation of EU product rules (18), placing on the market occurs when there is an offer or an agreement between parties regarding 'the transfer of ownership, possession or any other property right'. This can be done 'for payment or free of charge' once a manufacturing stage of the product is completed. Consequently, a manufacturer could place empty or filled food-contact packaging on the market by a mere transfer of the legal possession. For imported packaging or packaged products, the relevant timestamp is the 'release for free circulation' at the end of the customs procedure.

COMPLIANCE-SUPPORTING DOCUMENTATION

Holmen can provide product and material documentation, but the responsibility for demonstrating PPWR compliance of the final packaging rests with the company placing the packaging on the market.

We assess all our food-contact-certified products from a PFAS perspective and, based on current knowledge and the test methods we use, have confidence that they comply with the PFAS requirements as interpreted in the Guidance document for Regulation (EU) 2025/40.

Documentation regarding per- and polyfluoroalkyl substances (PFAS) and PPWR compliance is available **upon request** for the following products and application areas:

- Invercote and Inverform
- Incada
- Anchor pulp
- Holmen Elevate
- Holmen SURE

Underlying test results are not normally shared but can be made available where required for audits or regulatory purposes. Supporting documentation is maintained at each mill.

Environmental declarations (ED) including the product composition are available for all our products.

In the Download Centre on our website you can also access the following documents regarding product content. These statements are also relevant in the context of other EU legislation relating to product content and composition.

- [Product information and technical data sheets](#)
- [Material Safety Data Information - Paper products](#)
- [REACH-compliant paper products](#)
- [Regarding bisphenol A \(BPA\), flame retardants and PFAS](#)
- [Regarding Packaging Regulation 94 62 EC and PVC](#)
- [Regarding the recyclability of paper products](#)
- [Statement of totally chlorine free \(TCF\) production](#)

While we do not complete customers' PPWR questionnaires or compliance forms on their behalf, we can provide the PFAS-related confirmations and all documentation described here above.

FUTURE IMPLEMENTATION TIMELINE

PPWR will be implemented gradually over several years, with different requirements entering into force according to defined implementation timelines extending to 2030 and beyond. While some requirements will become applicable in the near term, others depend on the development of secondary legislation, guidance documents, and supporting frameworks before full implementation can take place.

The timeline below highlights some of the key milestones that packaging value chain stakeholders should be aware of when preparing for PPWR.

While this regulatory development is ongoing, it is important not to wait before acting. Early preparation helps reduce implementation risks, supports smoother transitions, and creates opportunities to align packaging solutions with future requirements.

We encourage you to discuss your future needs for containerboard, paperboard, and paper-based packaging materials with us at an early stage of your development process. By working together early, we can help you evaluate material choices, understand emerging requirements, and prepare for upcoming changes.

Fibre-based materials are already well positioned to meet many of the objectives of PPWR. Engage with us early in your development process, and together we can identify solutions that support compliance, performance, and long-term sustainability goals.

Year	Key PPWR milestone
2026	PFAS restrictions on food packaging become mandatory
2028	Mandatory sorting labels
2030	DfR compliance, recycled plastic content requirements, packaging minimisation requirements, bans on certain packaging uses, reuse targets, and 50% void-space limit become mandatory
2035	Recycling-at-scale requirements become mandatory

Contact

If you have any questions or would like to request our PFAS documentation statement for products, please do not hesitate to contact us.

We recommend contacting your sales representative or regular contact person in the first instance. If you are unsure who to contact, please reach out to:

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and Regulatory Affairs, Holmen Board and Paper,
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SUMMARY

PPWR represents a shift from a material-focused approach to a holistic packaging perspective.

- Board and paper manufacturers enable circularity through material innovation
- **Final compliance is determined during the design and use phases**
- Converters and brand owners have the greatest influence on whether requirements are met

Clear allocation of responsibilities and close collaboration throughout the value chain are essential for achieving PPWR compliance. We actively collaborate across the value chain to ensure that our materials are used in ways that support compliance.