

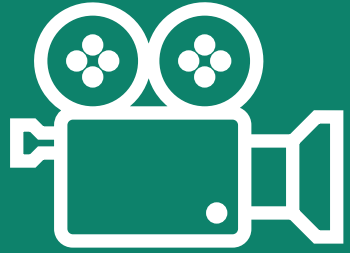
4evergreen and PPWR Technical Clarifications for Paper-Based Packaging



● Online web event

9 June 2026
15:30 – 17:00 CEST





**Please note that the webinar
will be recorded**



**Please use the Q&A function to
ask your questions**

Agenda

15:30

Introduction to 4evergreen

4evergreen Co-Chair, **Susan Brunner**
(Mondi Group)

15:35

Common myths & misconceptions

4evergreen Chair, **Susan Brunner**
(Mondi Group)

15:45

PPWR recyclability & 4evergreen Toolbox

4evergreen member, **Pieter Cools**
(Amcor)

16:05

Paper-based packaging standardisation –
Future outlook

4evergreen member, **Stefan
Ziemann** (JTI)

16:30

Q&A

Moderated by 4evergreen Chair
Susan Brunner (Mondi Group)

16:55

Closing



Introduction

**Susan Brunner, Mondi Group
4evergreen Co-Chair**





**4ever
green**

4evergreen is a cross-industry alliance of over 100 members representing the entire lifecycle of paper-based packaging. Together, they share expertise to develop tools and guidelines for an even more sustainable sector.

4evergreen's goal is to raise the overall recycling rate of paper-based packaging in Europe to:

90% by 2030

100+

**COMPANIES FROM THE
EUROPEAN paper-based
PACKAGING VALUE CHAIN**



Why this discussion matters

PPWR is moving into implementation and there is an increased need for clarity

...4evergreen's circularity toolkit helps companies reach their sustainability and circularity ambitions, while timely follow PPWR implementation, by providing:

A harmonised way to **evaluate if and in which recycling process a product is recyclable**, or if it affects the recyclability of the paper-based packaging where it is applied

Tools to understand how different **components, constituents and materials** of paper-based packaging **impact its recyclability**, and **design** products accordingly

Guidance to make the **collection & sorting** of products at the source more harmonised and effective, making sure that your product is recycled properly and **doesn't become waste**.



Common myths and misconceptions

Susan Brunner, Mondi Group
4evergreen Co-Chair



Why interpretations around paper-based packaging recyclability may differ



Companies and stakeholders are adapting to **PPWR requirements from different starting points**, technologies and packaging portfolios



Without a common technical framework, recyclability may sometimes be interpreted through one feature or metric instead of being **assessed in the relevant recycling process**



Through harmonised methods, technical testing and cross-value chain dialogue, 4evergreen helps support a consistent **understanding of paper-based packaging recyclability**

Myth #1

A higher paper content screening threshold automatically means better recyclability

- 4evergreen recommends **an 80% paper content screening threshold** for eligibility under the **conventional recycling process** Design for Recycling table

Important: 80% is a screening threshold, not a recyclability determination

- Increasing the paper content threshold to 90 – 95% for screening **does not improve fibre recovery performance**
- A higher threshold risks **misclassifying packaging, restricting innovative paper-based formats and increasing system costs**

Myth #2

Composite paper packaging can only go to specialised recycling

- Single-sided coated paper-based **composite packaging formats can be effectively processed in conventional recycling** systems today in Europe
- Formats, such as **liquid packaging cartons**, are directed to paper mills with specialised recycling processes due to their **composition and fibre quality**, not simply because they are “composite”
- The decision tree in the 4evergreen **Circularity by Design Guideline** is used to identify the **most suitable recycling pathway** for a packaging

Myth #3

Recycling single-sided coated fibre-based composites requires significantly longer repulping times and negatively impacts pulp quality

- Laboratory tests by Mondi* indicate that **single-sided coated fibre-based composites can be recyclable in conventional recycling processes without requiring longer repulping times** than corrugated packaging
- The assessment is based on Mondi Laboratory testing using the **Cepi Recyclability Test Method**

Myth #4

The 4evergreen tools are not representative of the industry view

- In 4evergreen, **recyclers, waste management companies, packaging producers and converters, brand owners and material suppliers** are involved in developing the 4evergreen toolbox
- The test methods, guidelines and recommendations, including the 80% paper content screening threshold, are the outcome of a **broad, cross-value chain consensus process**, not a single-interest position

4evergreen members by segment



SEGMENT 1: TECHNOLOGY & RESEARCH

Bobst
Heidelberg
Innovhub
Kadant
KCL
Koenig & Bauer
PROPAKMA
PTS
RISE
Voith



SEGMENT 2: PULP, PAPER & BOARD MANUFACTURERS & RECYCLERS

Ahlstrom	Mondi
Billerud	Palm
Burgo	Sappi
CMPC	Sonoco
Delfort	Stora Enso
DS Smith	Suzano
Felix Schoeller	RdM
Heinzel Group	UPM
Holmen	Weig Karton
Koehler	Wepa
Lecta	
Metsä Board	
MM Group	



SEGMENT 3: NON-FIBRE MATERIAL SUPPLIERS (INKS, ADHESIVES, COATINGS)

Actega
Aquapak
Archroma
Avery Dennison
BASF
Covestro
Dow
Henkel
HB Fuller
Huber Group
Kemira
Kuraray
Leonhard Kurz
NatureWorks
Omya
Solenis
Taghleef Industries



SEGMENT 4: PACKAGING PRODUCERS & CONVERTERS

Amcor
Baumer hhs
Constantia Flexibles
Elopak
Ecopol
Graphic Packaging Intl
Huhtamaki
Nissha
Pulpex
Royal Vaassen
Schur Group
Sealed Air
SEDA
SIG Combibloc
tms / Havi
Tetra Pak
Walki



SEGMENT 5/6: BRAND OWNERS

FOOD SERVICE PROVIDERS & RETAILERS

Amazon	Lindt
Apple	L'Oréal
Danone	MARS
Ferrero	McDonald's
Flora Food	Mondelez
IKEA	Nestlé
JTI	PepsiCo
Kellanova	Philip Morris Intl
KraftHeinz	Procter & Gamble
LEGO Group	Tchibo
	Unilever



SEGMENT 7: WASTE MANAGEMENT & EPR SCHEMES

Citeo
Comieco
Expra
FBCA

ASSOCIATE MEMBERS

ECMA	EPPA
FBCA	Leko
Fostplus	Paptic
ProCarton	
NextGen	
ICP	
Cepi*	



4ever
green



PPWR recyclability & 4EG toolbox

From Policy to Practice

Pieter Cools, Amcor



From ambition to implementation

The PPWR will change the packaging landscape in Europe

- Compliance with the upcoming PPWR = **license to operate**
- The PPWR will start applying to all packaging placed on the EU market, including **paper-based solutions**, on 12 August 2026
- Shift **from traditional waste legislation to a product compliance framework**, where packaging must demonstrate compliance through **design for recycling** and **recyclability performance**
- For paper-based packaging, **this does not start from zero**: the sector already operates in a **mature recycling system with an 87% recycling rate***
- The question is **how to ensure that new criteria reflect this operational reality without creating unintended distortions.**

*Eurostat, 2023



EU Packaging & Packaging Waste Regulation (PPWR)

Although 4evergreen was established before the PPWR, the regulation has given the Alliance even more meaning and urgency. Our approach includes:



UNDERSTANDING

To better understand the **changing packaging landscape** and its implications for the industry and our tools, we invest in internal discussions and alignment via working groups, webinars, panel discussions, factsheet development. With contributions from **+380 industry professionals**, 4evergreen is **the expert platform when it comes to paper-based packaging recyclability**



TECHNICAL EXPERTISE

We develop practical tools and guidance to improve the overall recycling rate for paper-based packaging, support circular packaging design, and help shape future-ready solutions, which are **common objectives shared with the PPWR**



COLLABORATION

The technical work remains essential to position **4evergreen as the go-to source for technical information in the PPWR secondary legislation** process. 4evergreen provides inputs to standardisation bodies based on its deliverables and collaborates with the industry to promote paper-based packaging

Where the real challenge lies



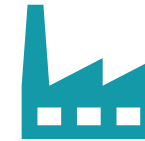
PPWR sets the overarching framework, but the **challenge now is to translate broad principles into material-specific criteria, recyclability assessment methods** and design requirements that can be applied in practice



4evergreen supports that translation into practice through its practical tools on design, recyclability, evaluation, collection and sorting, developed by industry experts across the value chain and grounded in real recycling conditions

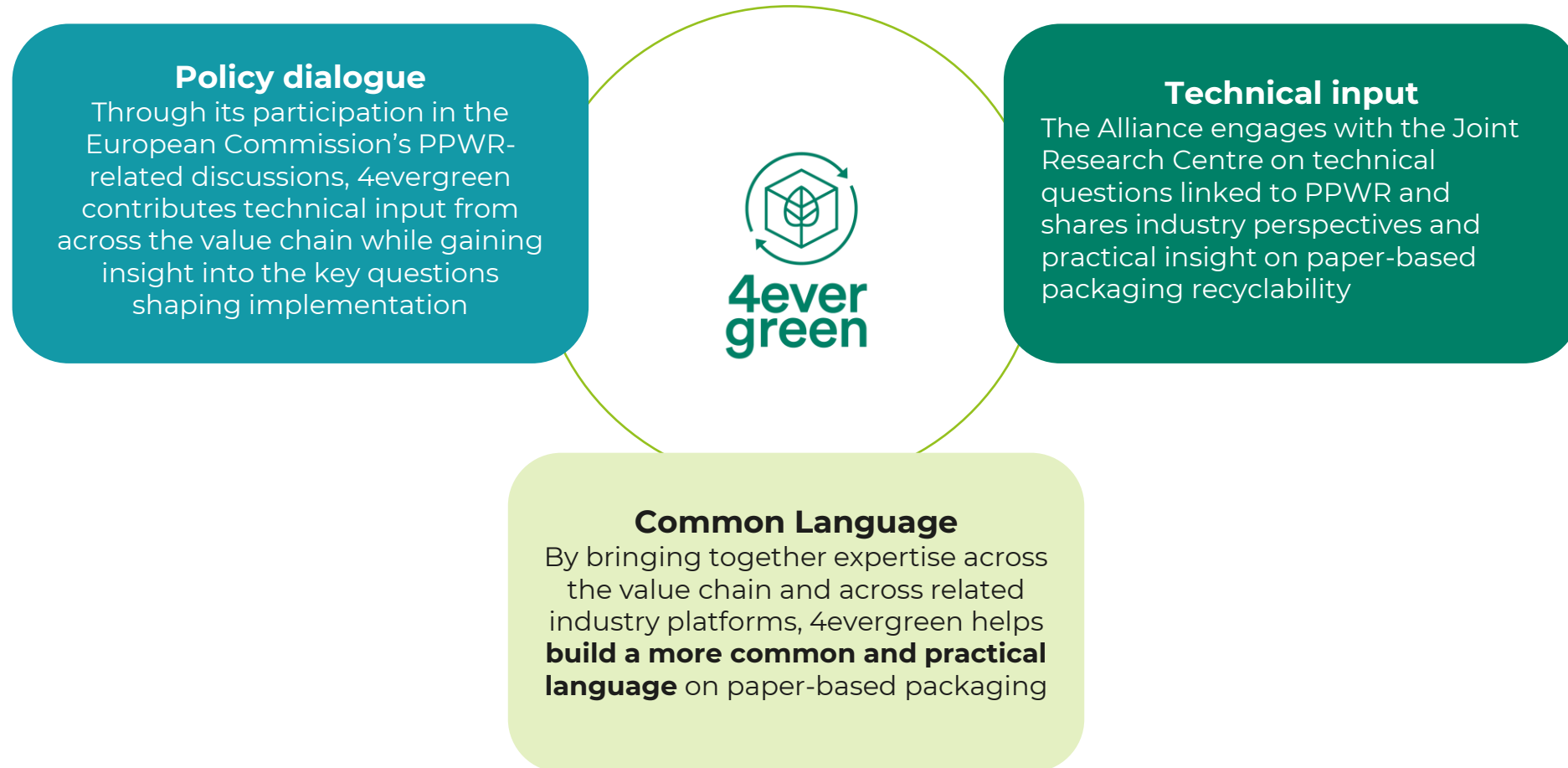


The translation is particularly important where the regulatory direction is clear, **but the detailed technical application is still evolving through secondary legislation** and emerging assessment approaches

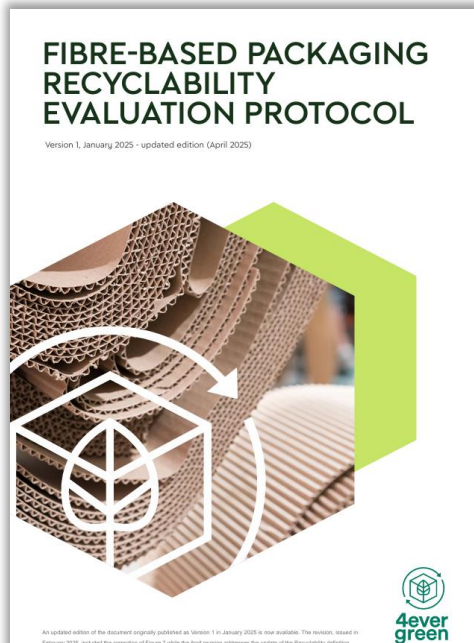


With limited time for the industry to prepare, **4evergreen's toolbox helps enable companies to start preparing now** by turning emerging requirements into practical guidance that **reflects operational reality and supports what already works at scale**

Connecting technical expertise across the PPWR landscape

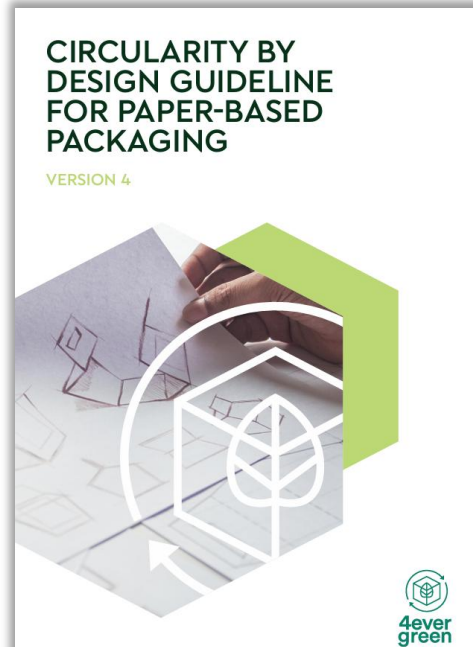


The 4evergreen technical toolbox



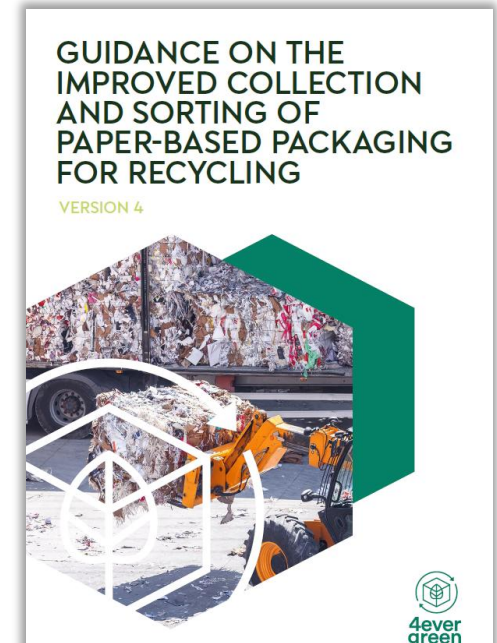
RECYCLABILITY EVALUATION PROTOCOL

Assesses the technical recyclability of paper-based packaging under harmonised laboratory conditions representative of industrial practice



CIRCULARITY BY DESIGN GUIDELINE

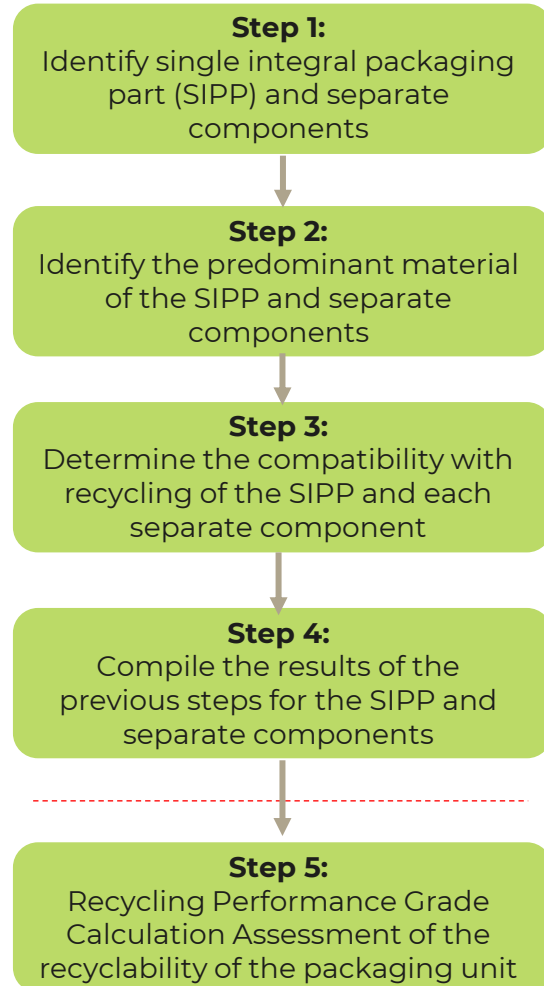
Helps designers identify the relevant recycling process, improve packaging compatibility and design choices



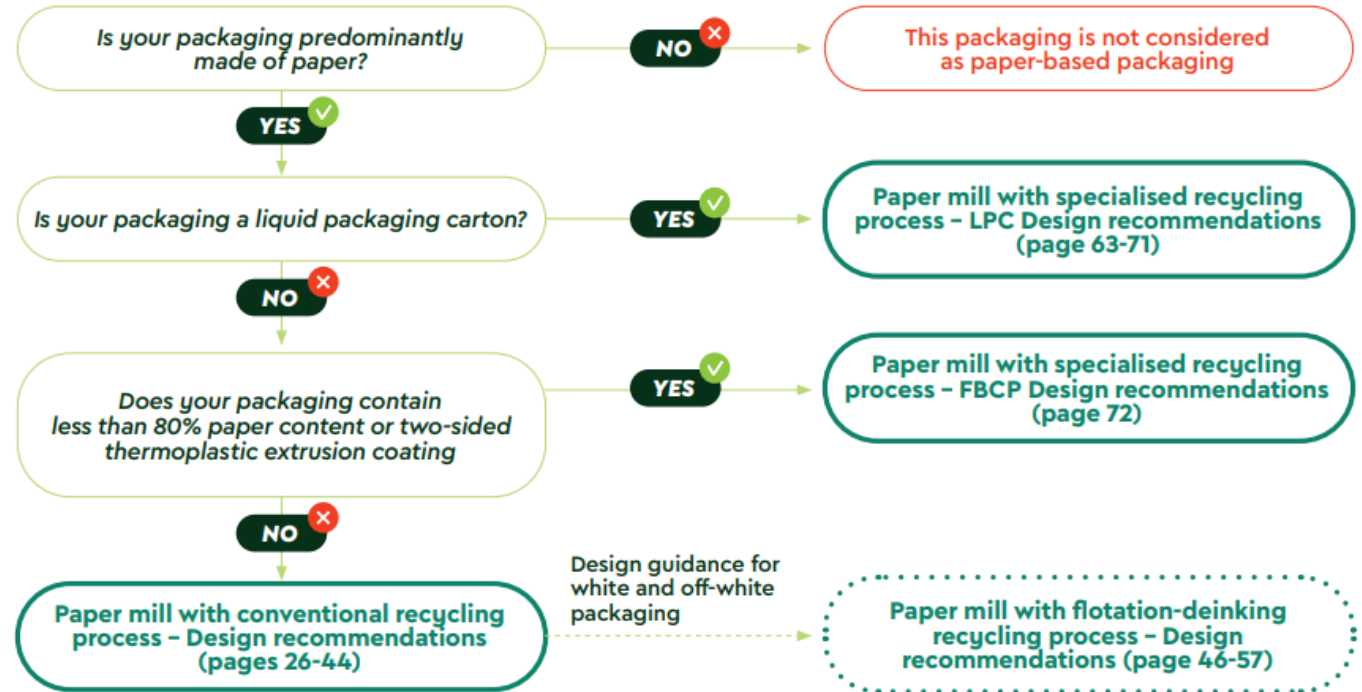
GUIDANCE ON IMPROVED COLLECTION AND SORTING

Includes recommendations on how collection and sorting influence whether a packaging reaches the correct recycling process

PPWR Framework



4evergreen Decision Tree



Circularity by Design Guideline v4 (2026)

4EG technical toolbox in context of PPWR

Design for recycling (by 2030)

Ensures that the packaging is designed in a way that it can be collected, sorted, and recycled.

- **Recyclability evaluation protocol**
- **Circularity by design guideline**

Recycled at scale (55%) (by 2035)

Ensures that there is enough capacity to process packaging placed on the market. This refers to the collection, sorting, and recycling capacity.

- **Guidance on collection and sorting**

With paper and cardboard already recycled at 87% (Eurostat) in Europe, the challenge is to ensure systems continue to capture packaging efficiently and route it to the right recycling pathway



Paper-based Packaging Standardisation & Future Outlook

Stefan Ziemann, JTI



PPWR – Delegated acts

Recyclable Packaging (Art. 6 PPWR)

By 1 January 2028, the Commission shall, after taking into consideration standards developed by the European Standards Organisations, adopt **delegated acts to establish:**

- (a) **design for recycling criteria** and **recycling performance grades**
- (b) how to assess **compatibility with recycling and translate in recyclability performance grades** as per packaging unit, under consideration of the Single Integral Packaging Part (SIPP) and its separate components, in terms of weighting, including material-specific criteria and sorting compatibility to determine whether packaging considered recyclable.
- (c) a description, for each packaging category, of the conditions for compliance with the respective performance grades
- (d) a framework concerning the modulation of financial contributions to be paid by producers to comply with their extended producer responsibility obligations based on the packaging recycling performance grades

DfR criteria



**Recyclability
performance
assessment &
grades**



Standardisation implications

- **More than 350** experts from across Europe only in WG3
- CEN countries (27 EU + **EFTA + UK + TR**)
- **Multi-material** recycling streams aiming for harmonised methodology – **13 material streams across two WG's**
- alignment across **three Workgroups** (WG) from **two technical committees** (TC)
 - **TC 261** and specifically for paper TC 172 (WG2)
 - **WG 3** – Material Recovery (Technical Specifications)
 - **WG10** – Design for Recycling of Plastic Packaging (EN Standards)
- WG 3 – only 12 months of development

Standardisation implications

1. The harmonised technical specifications (TS) and standards **become the technical backbone of PPWR implementation**
2. Move industry from **voluntary guidance towards a harmonised EU-wide assessment logic**
3. The TS and standards push assessment towards **evidence-based, protocol-based decisions** with defined thresholds
4. The TS **separates design criteria from system-performance** or behaviour issues
5. They create a more **formal link between material-specific rules and an overarching methodology**

4evergreen & standardisation

- The European Committee for Standardisation (CEN) gathers the national bodies of European countries and **sets the technical framework in implementing PPWR, translating the PPWR's high-level legal requirements into harmonised technical specifications and standards** that will form the basis for secondary legislation.
- It has been essential to communicate to standardisation committees that the work **already developed by 4evergreen** in this regard is the **preferred approach for the paper-based packaging industry** for designing and assessing packaging
- Informal input to CEN is provided by **technical experts who are members of both 4evergreen and CEN**, acting independently and in support of the technical work of 4EG and CEN
- **Much of 4evergreen's methodologies became the basis of the technical specifications** developed in CEN TC 261 / SC4 / WG3 and TC 172 / WG2

Why this matters for 4evergreen's work



CEN Technical Standards and Specifications for DfR, evaluation and testing of paper-based packaging are expected to become publicly available later this year



What will be the future role of the 4EG technical toolbox in this new reality, and how will they relate to the CEN and legal texts



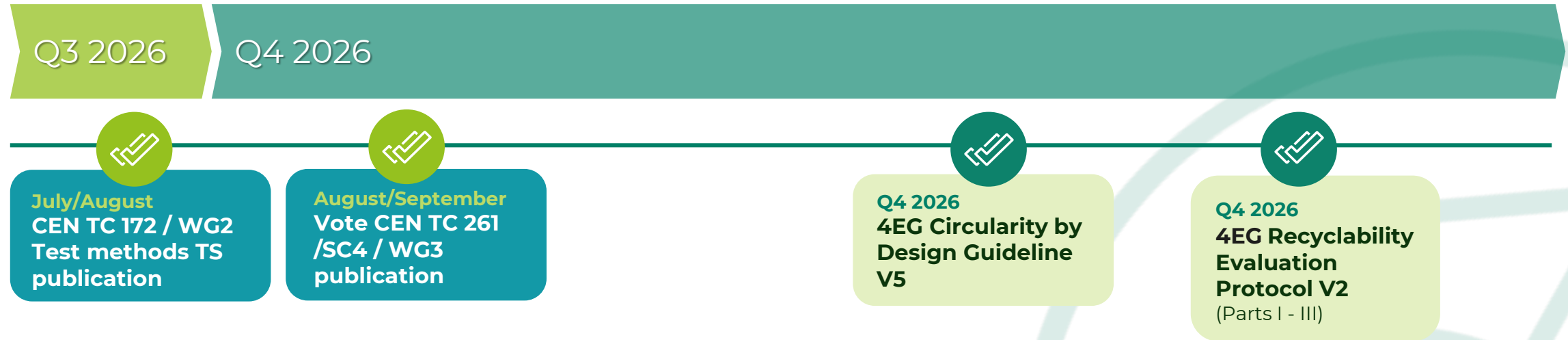
The 4evergreen assessment methodology is transitioning from a **leading industry reference towards a key complementary role** alongside forthcoming harmonised CEN standards.

The evolving toolbox

- By **continuously updating the 4evergreen toolbox** – the Guideline, Protocol and Guidance on Improved Collection and Sorting – as recycling technologies, innovations, standards and requirements evolve, **4evergreen supports an informed and technically sound transition toward the 2030 circularity objectives**
- The alliance will **continue to provide guidance and explanatory layers to help stakeholders understand and comply with recyclability requirements** for paper-based packaging
- **Further technical work in areas where gaps remain**, such as sorting and EPR, while strengthening existing recommendations with additional data

Upcoming milestones 4EG & CEN

General application of PPWR from 12 August 2026



Technical work is ongoing across several 4evergreen workstreams and work items, with further updates and publications **expected in 2027 to address open questions and support continued alignment.**

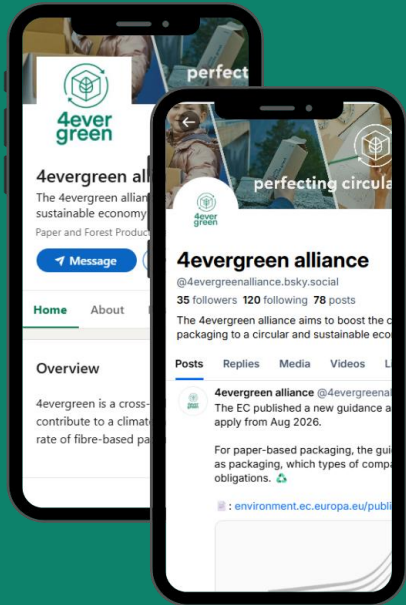
Q & A

Please use the **Q&A** function to pose your questions

Moderated by Susan Brunner
4evergreen Co-Chair



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Visit our website to access our technical toolbox

4evergreenforum.eu

A tall, white banner stand with a green base. It features the 4evergreen logo at the top, followed by the tagline "Perfecting Circularity Together". Below that is a target icon and the text "OUR GOAL". The main message reads "Raise the overall recycling rate of fibre-based packaging to 90% by 2030". At the bottom, there is a QR code with the text "Scan this code!" and a small description of the alliance. Social media icons for Twitter and LinkedIn are also present at the bottom.


4evergreen
Perfecting Circularity Together

 **OUR GOAL**

Raise the overall recycling rate of fibre-based packaging to

90%
by 2030

4evergreen is a cross-industry alliance brings together industry representatives from across the fibre-based packaging value chain to contribute to a climate-neutral and sustainable society.

 Scan this code!

 
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thank you

Connect with us



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alliance benefits

Making a difference

Together, we have the power to implement. We are driving new developments across the sector and using 4evergreen as a platform to push for innovation.

Partnership

Our 100+ market leaders have joined forces to perfect circularity. **Collectively, we will get our voice heard.**



Accessing intelligence

Our members are thought leaders in their respective fields. They share industry intelligence, best practices, case studies, guidelines and collaborate in various expert groups.

