I·C·I·S
Independent Commodity Intelligence Services

Thermoforms Collection & Recycling Outlook

Matt Tudball, Senior Editor, Recycling
matt.tudball@icis.com

Petcore Europe Thermoform Conference

27 May 2025

Our sustainability portfolio

GLOBAL

Recycling Supply Tracker Mechanical

Recycling Supply Tracker Chemical

2050 Supply & Demand Forecast
Virgin and Recycled PET, PE, PP, PS, PVC

Topics: Recycled Plastics Focus

EUROPE

Mixed Plastic Waste & Pyrolysis Oil Europe
Pricing & Insight

Recycled PET
Pricing & Insight
Price Forecast

Recycled Polyethylene
Pricing & Insight

Recycled Polypropylene
Pricing & Insight

ASIA

Recycled PET
Pricing & Insight
Price Forecast
(in development)

Recycled Polyethylene
Pricing & Insight

Recycled Polypropylene
Pricing & Insight

AMERICAS

Recycled PET
Pricing & Insight
Price Forecast
(in development)

Recycled Polyethylene
Pricing & Insight

Recycled Polypropylene
Pricing & Insight
Pricing & Insight Prototype

PPWR scope and market restrictions

WIDE SCOPE

- Replaces a directive and amends the SUPD (Single-use Plastic Directive 2019/904)
- Covers most packaging and packaging waste (B2C and B2B)
- Includes quantitative targets, sustainability requirements and market restrictions
  - Reusable targets within a system of reuse

	2030	2040
MINIMUM RECYCLED CONTENT		
For contact sensitive packaging made of PET (excluding single-use beverage bottles)	30%	50%
For contact sensitive packaging made of plastic other than PET (excluding single-use plastic beverage bottles)	10%	25%
Single-use plastic beverage bottles	30%	65%
Remaining types of plastic packaging	35%	65%
RECYCLABILITY	70-95%	80-95%
REFILL	10%	

Timeline for PPWR

PPWR is law – 22.01.2025

PPWR enters into force – 11.02.2025

End of transition period – 12.08.2026

Secondary acts with strong market impact – Adoption's timeline

2026

- Implementing act on **calculation and verification of percentage of recycled content**
- Implementing act on **equivalence of rules applied to recycled content recovered and collected outside the EU**

2027

- **Delegated acts on calculation rules and methodology for reuse**

2028

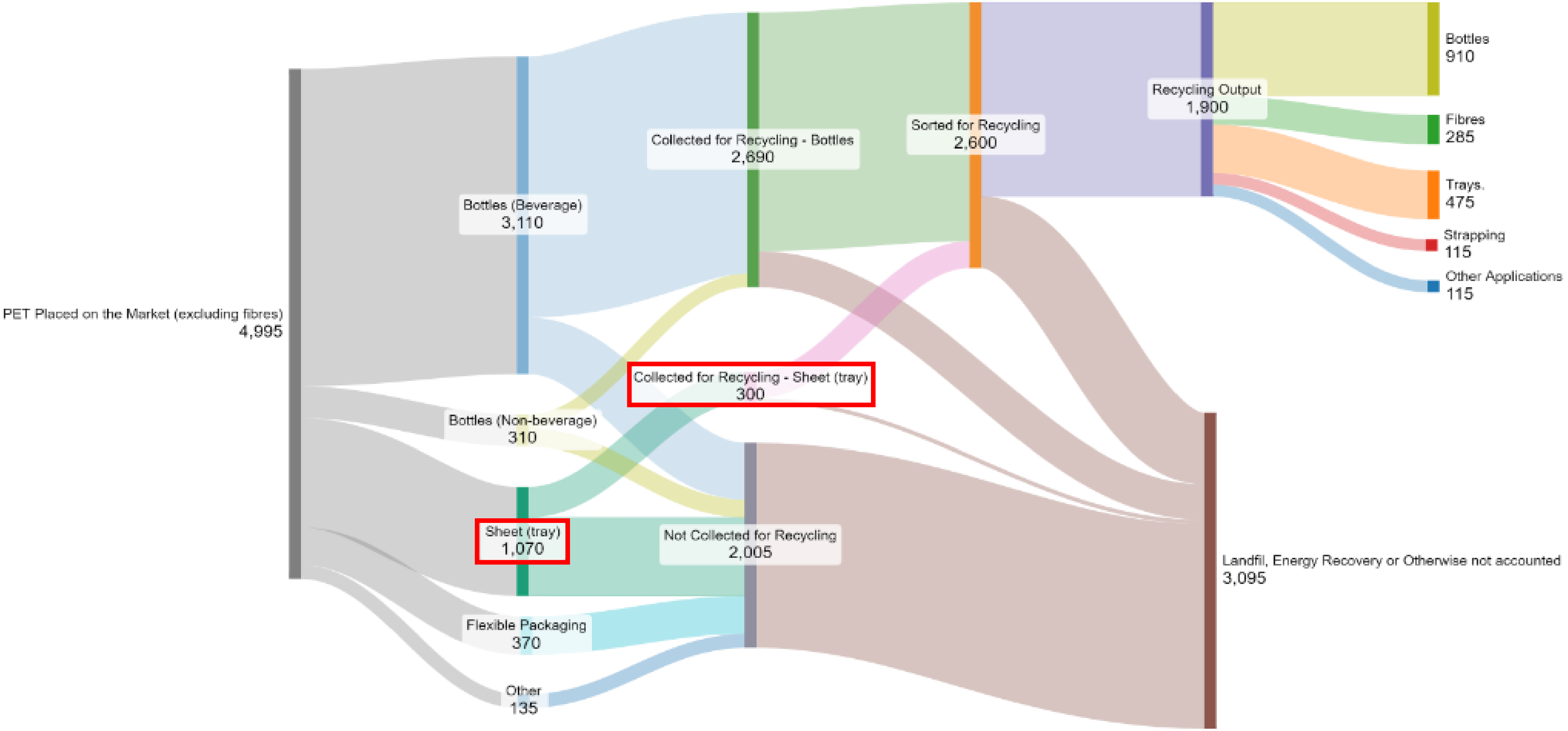
- Review and legislative proposal for **bio-based feedstock in plastic packaging**

2030

- Implementing act establishing **methodology for recyclable at scale assessment**
- Implementing act establishing **chain of custody mechanism ensuring packaging is recycled at scale**

PET State of Play 2022 report

2022 PET and R-PET material flow in '000 tonnes (excluding polyester fibres)



28%

Trays collected for recycling

– EU 27+3, 2022

25%

Of recyclate produced went back into trays

– EU 27+3, 2022

EU 27+3 includes EU countries, Norway, Switzerland and the United Kingdom

Source: 'PET Market in Europe: State of Play, 2022'

Challenges to collection and recycling rates

High contamination rates

water, organic residuals, labels, lidding film, aluminum

Variability in feedstocks

mono/multi materials to differing colours, lids, labels, etc.

60% of trays placed on market are multilayer

Insufficient collection and sorting

Installation cost of sorting tech vs. lack of tray recyclate demand

Less collection in countries with DRS

Lower yields from tray bales

Higher generation of fines due to friction, recycling on bottle lines produces sub-standard material

Current collection

- Only a few countries collected thermoformed trays for recycling, for example:
    - Belgium – Fost Plus (mono/multi; opaque trays)
    - France – Citeo (mono/multi; opaque)
    - Sweden – Site Zero (12 polymer types inc. PET trays)
- UK, Netherlands also collecting trays
- Italy – working on separate collection and sorting
- Austria – trials on producing tray bales

Europe's Tray Recycling Installations

Country	Installed input capacity*
Belgium	10,500
France	12,000
Italy	7,000
Romania	10,000
Spain	125,000
The Netherlands	70,000
TOTAL	**234,500**

Example of current projects include:

- Cirrec (Netherlands)
- Repetco (Spain)
- Sulayr (Spain)

**Current and under construction*
Source: ICIS Recycling Supply Tracker – Mechanical, ICIS research

Developments in the market

Regulation

- PPWR in force Q1 2025; 30% recycled content by 2030
- 2022/1616 – status of functional barrier novel technology status – decision pending
- 2022/1616 Art. 6 1(c): the plastic waste is subject to separate collection for food contact applications

Market appetite

- Bale prices vary wildly depending on type
- Differences in quality, composition of bales
- Balancing demand between tray and bottle sectors
- Tray flake prices can differ between sources
- Taxes may drive demand ahead of PPWR

Industry efforts

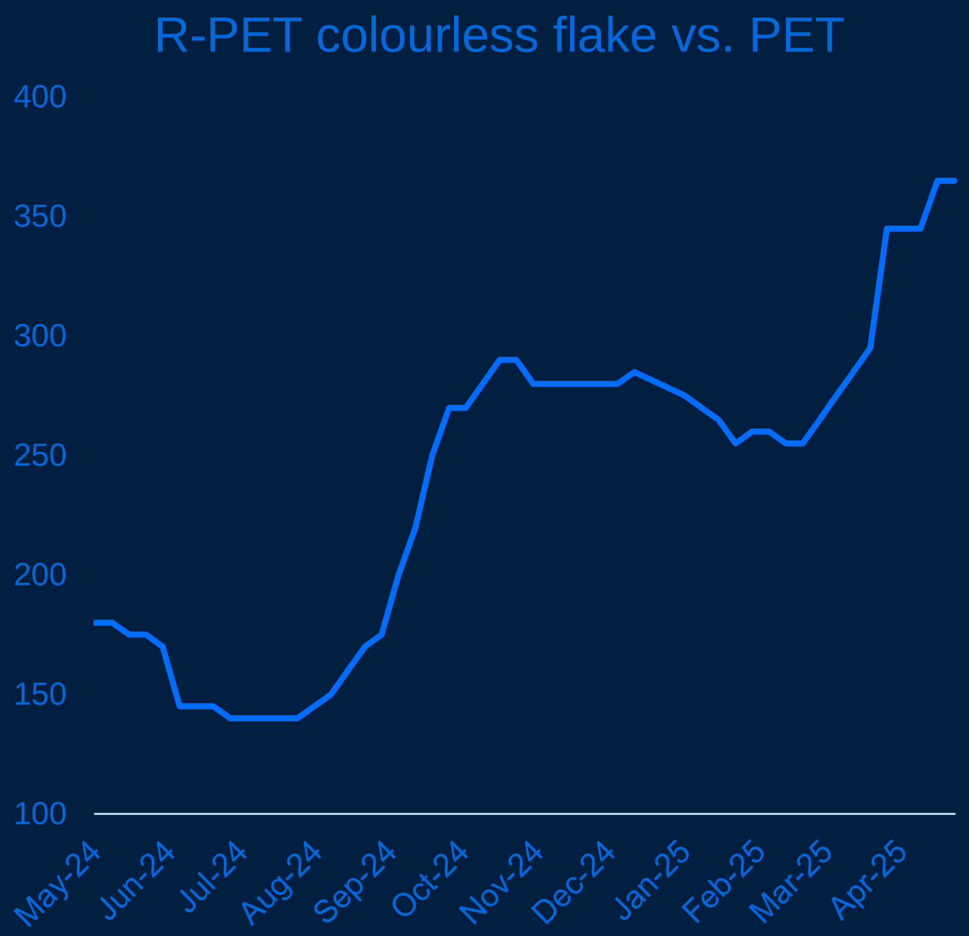
- Fost Plus cooperating with Vanheede for opaque trays, Morssinkhof-Rymoplast in Belgium with MOPET plant
- Citeo working with Paprec, Carbios, Eastman to develop mechanical, chemical and bio solutions
- Sulayr, BASF, Evertis, Bobst multilayer closed loop project
- Announced projects largely involve partnerships between recyclers and end users of the rPET material
- TCEP design guidelines for mono/multilayer trays

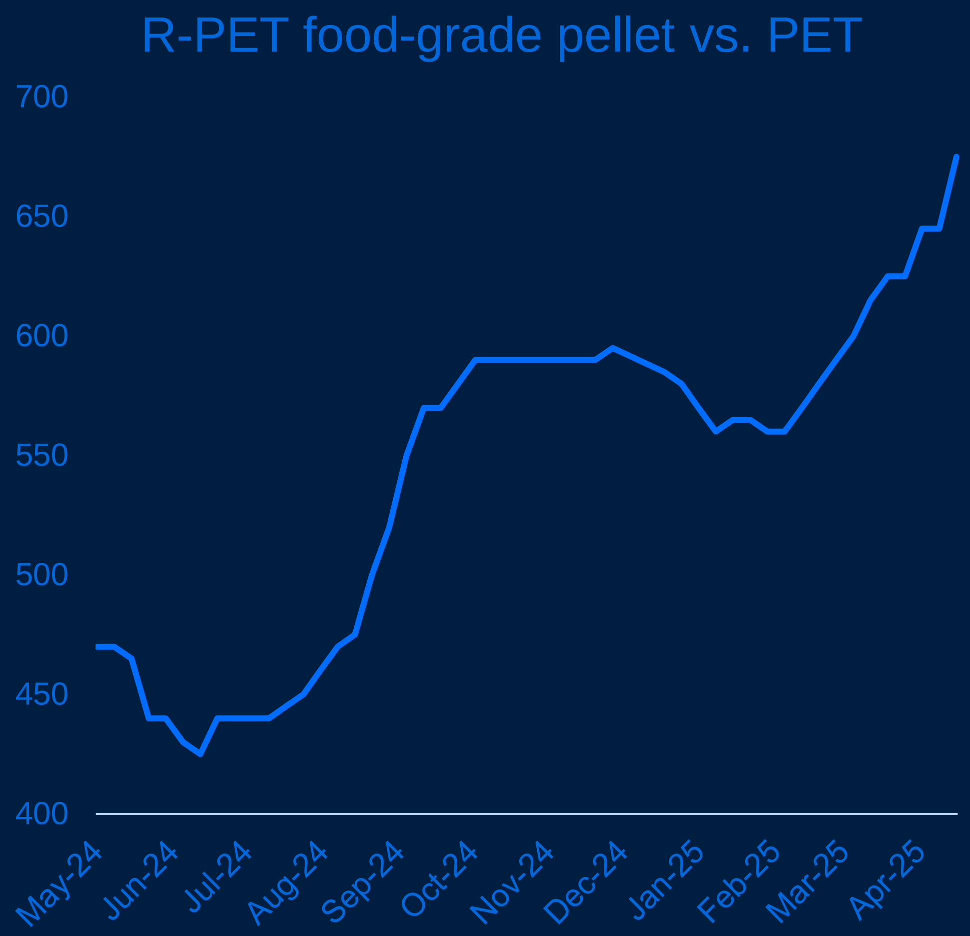
The drive for 'green transition' is currently competing with tough macroeconomic conditions

- **Slow regulatory implementation leading to investment uncertainty**
- **Voluntary brand commitment revisions**
- **Fragmented nature of the recycling industry**
- **Competitive abilities of the European recyclers on the global market**
- **Low prices of virgin polymers**
- **Securing high quality feedstock for recycling**

Source: ICIS price reporting and analytics

R-PET spreads with PET





Source: ICIS

Contact Information

ANALYTICS

Helen McGeough, Senior Analyst & Global Analyst Team Lead
helen.mcgeough@icis.com

Americas

Andrea Bassetti
andrea.bassetti@icis.com

Joshua Dill
joshua.dill@icis.com

Corbin Olson
corbin.olson@icis.com

EMEA

Egor Dementev
egor.dementev@icis.com

Carolina Perujo Holland
carolina.perujoholland@icis.com

Alexandra Tomczyk
alexandra.tomczyk@icis.com

Asia

Salmon Aidan Lee
salmon.lee@icis.com

EDITORIAL

US

Emily Friedman
emily.friedman@icis.com

Europe

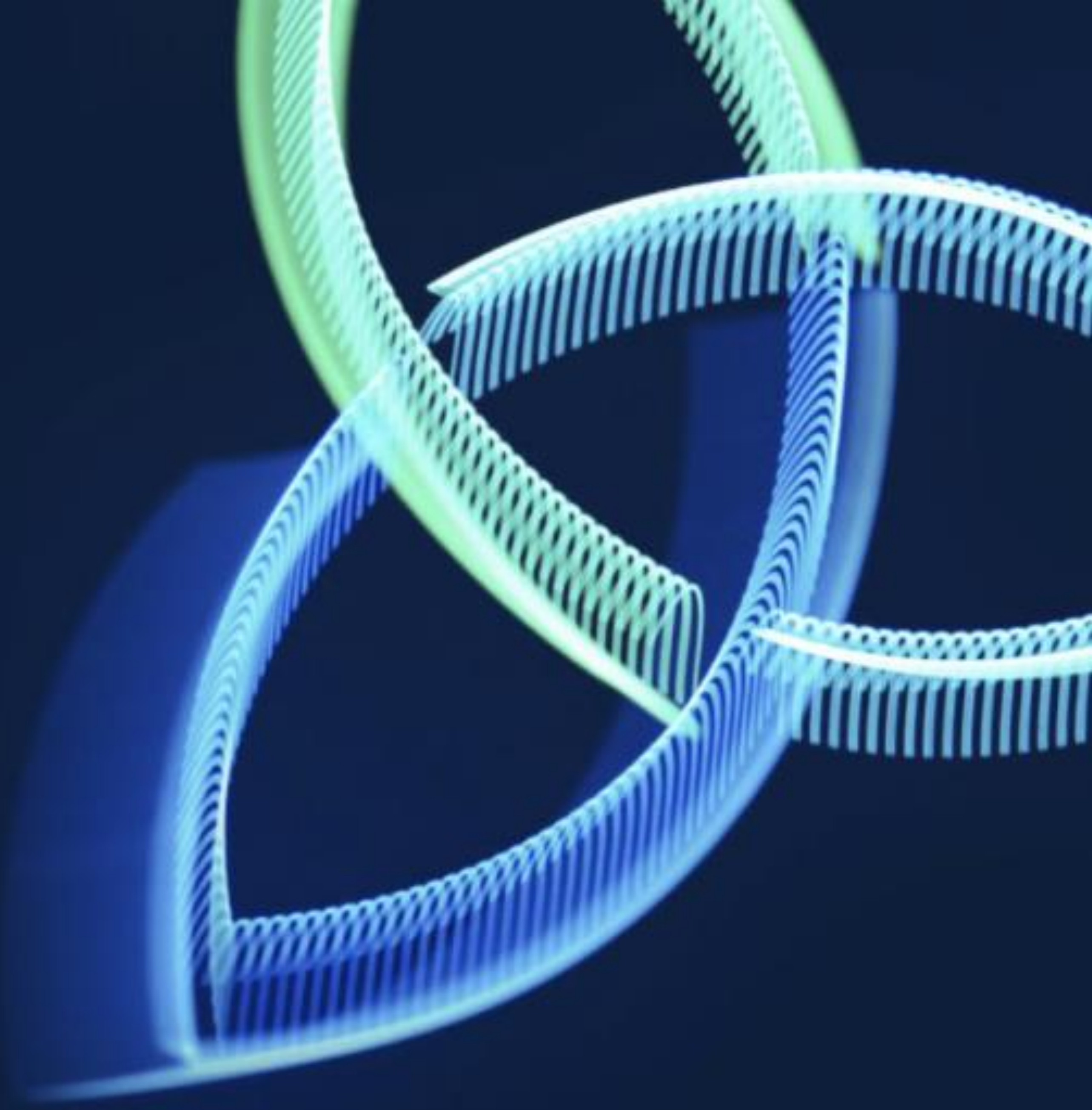
Mark Victory
mark.victory@icis.com

Matt Tudball
matt.tudball@icis.com

Asia

Arianne Perez
arianne.perez@icis.com

Thank you



For recycling related enquiries please contact: recycling@icis.com