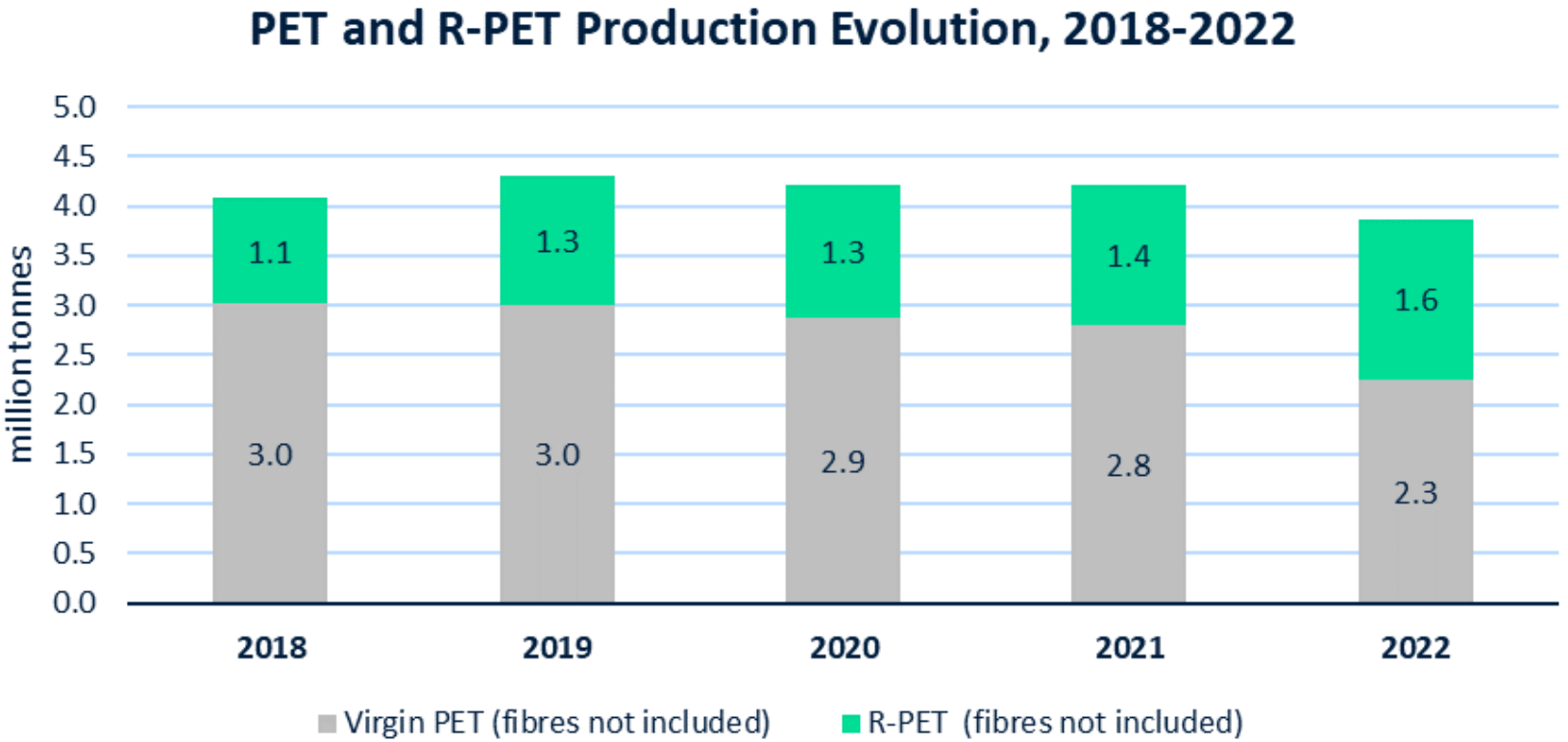
EPBP and TCEP

Innovation Evaluation Platforms
October 17th, 2024

https://www.epbp.org/

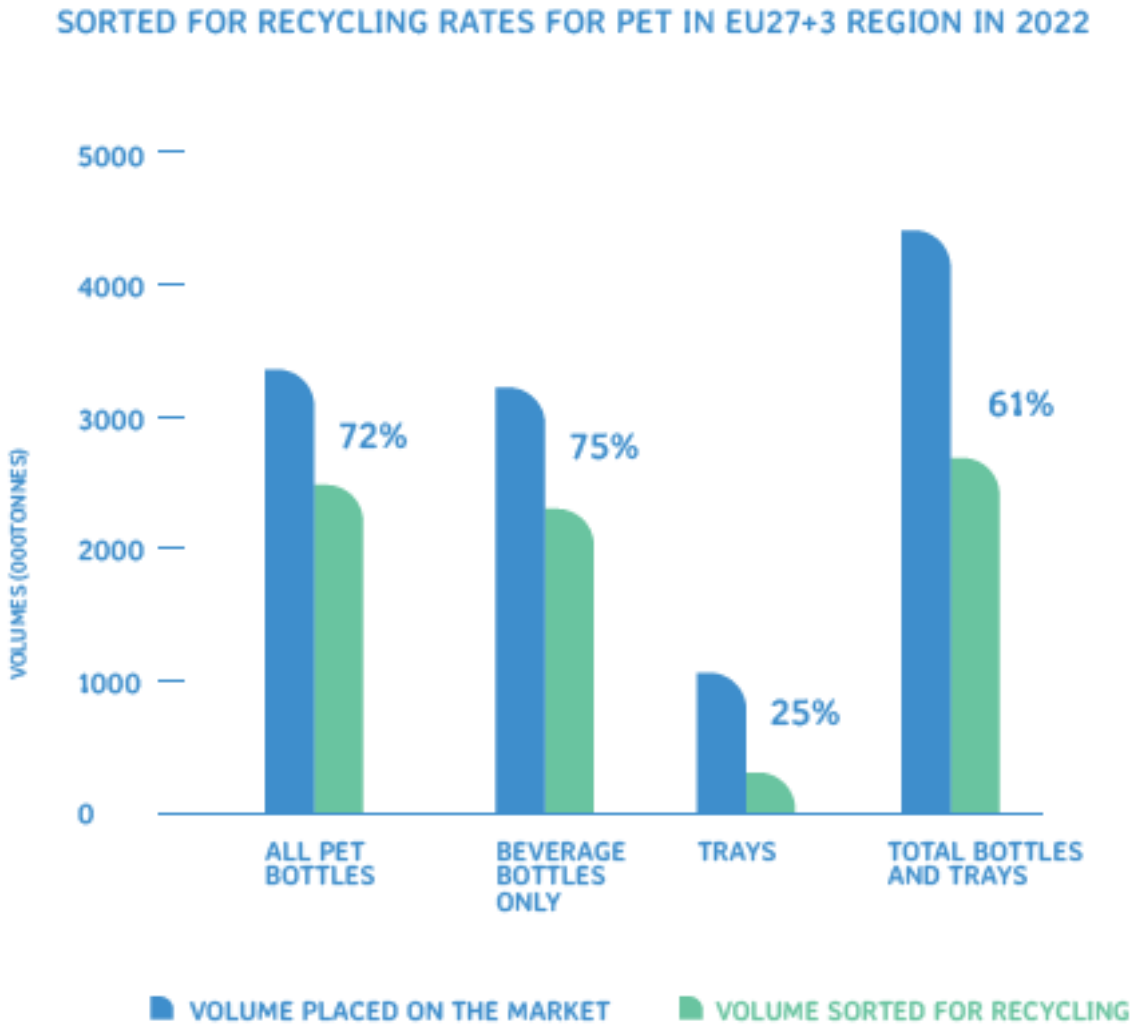
https://www.tcep-europe.org/

How Circular is PET for Bottles and Trays?



Sources:
(1) PET Market in Europe. State of play. ICIS 2024

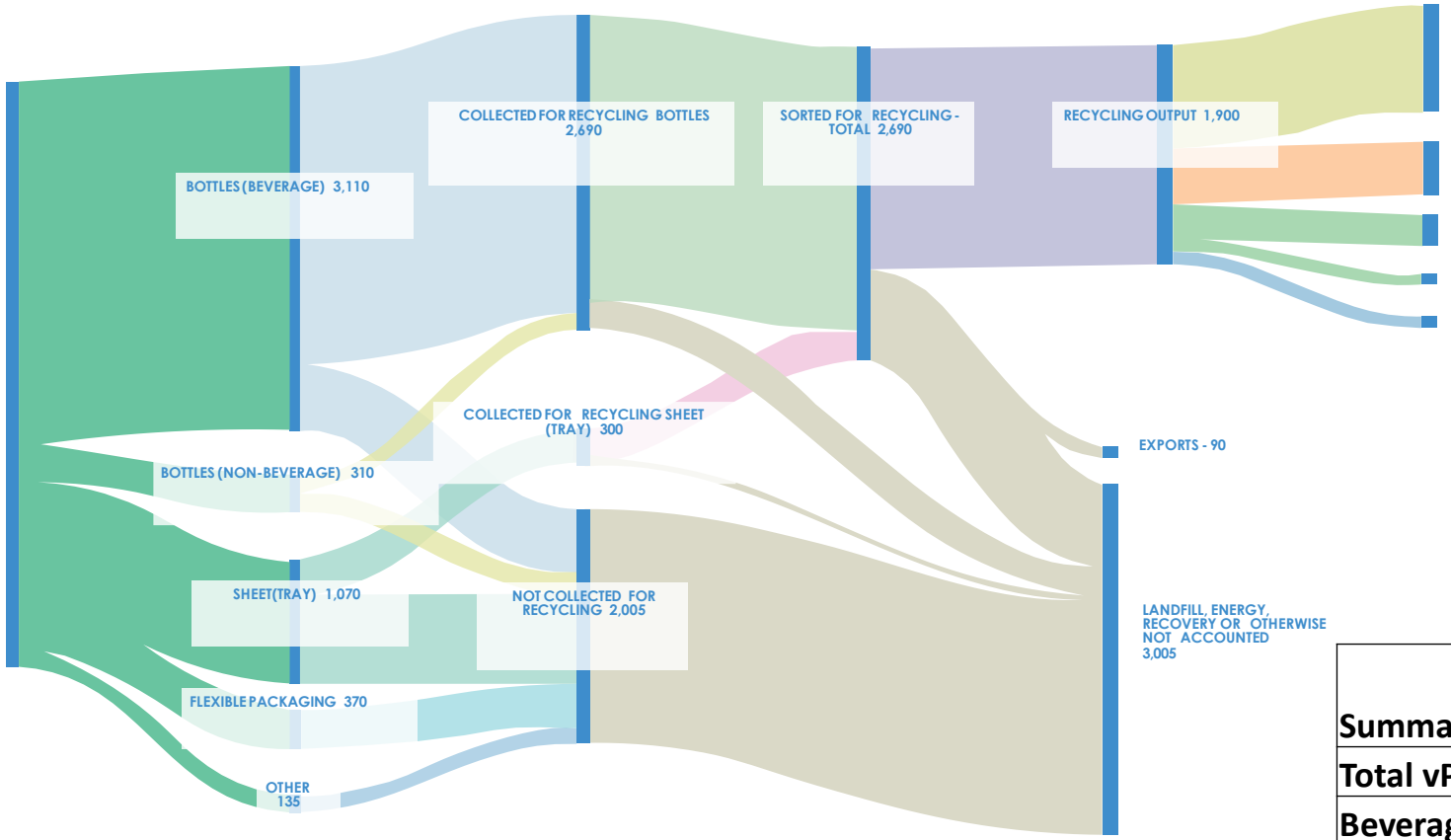
Sorted for recycling



Sources:
(1) PET Market in Europe. State of play. ICIS 2024

European PET and rPET material flow in 202

PET placed in the market (excluding fibres) 4.995



Summary table for 2022	rPET % content
Total vPET launched (kt)	
Beverage bottles (kt)	24%
trays (kt)	44%
Used for recycling - downcycling (kt)	38%
Lanfill - Energy recovery	62%

Sources:
(1) PET Market in Europe. State of play. ICIS 2024

PET market status in EUROPE 2022 (1)

- 5 million tons have been launched in European market in 2022
- 3 million tons have been collected (60%)
- 2.8 million tons for bottles
- Only a few countries collected trays in 2022. More markets are setting up
- PET-based trays contain on average around 44% (ICIS 2022 market) vs 52% (Eunomia 2020 market)

Sources:
(1) PET Market in Europe. State of play. ICIS 2024

Average PET bottle waste collection rate in 2022

Average European Collection rate 60%

Source: ICIS research and analysis, January 2024

DRS coverage in Europe

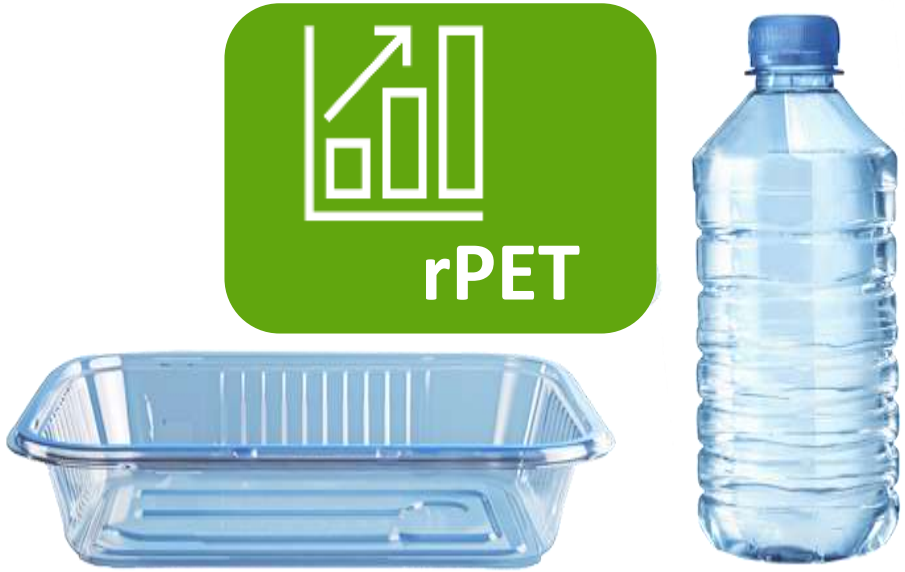
Collection is key

Source: ICIS research and analysis, January 2024

Expectations to increase significantly rPET Content in PET Bottles and Trays

Regulatory Framework to boost circularity

- SUPD
- PPWR

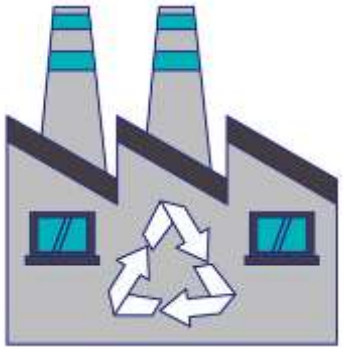


Key success factors

- ✓ Prioritizing bottle-to-bottle and tray-to-tray closed loop recycling systems
- ✓ Appropriate sorting and recycling technologies for non-bottle PET
- ✓ Policy increasing collection likely by the use of Deposit Return Schemes, which will improve collected material quantity and quality
- ✓ Clear design for recycling guidelines for PET bottles and trays to ensure high quality rPET for bottle and tray manufacturing (incl separate colour streams)

Full circularity requires High Quality Food Grade Material for Bottle and Tray rPET

Design for Recycling + Well Designed DRS + State-of-the art recycling technology = High Quality rPET



European PET Bottle Platform (16 years)
Tray Circularity Evaluation Platform (4 years)

Industry Initiatives (members: PETCORE, NMWE, UNESDA)

Provide PET bottle **Design Guidelines for RECYCLING**

Evaluate PET bottle and Tray packaging innovative solutions and technologies on recycling processes and quality of rPET

Design for Recycling and circularity

Grouping Technical Experts in the field of PET production, design and recycling in Technical Committee

Providing an independent and confidential assessment of new technologies and its impact on PET recycling processes across Europe

Issuing design guidelines and establishing and evolving test procedures

Authorizing test laboratories

Working closely with PETCORE Working Groups and Industry Organizations

European PET Bottle Platform (16 years)
Tray Circularity Evaluation Platform (4 years)

Design for Recycling and circularity

Both platforms are the main source for DfR and test protocols for the CEN standardization project in CEN TC261/SC4/WG10 on recyclability and recyclability assessment that started in 2023 and new work under TC261/SC4/WG3 on the recyclability scoring that is currently starting.

ecyclability Evaluation Platforms (EPBP and TCEP)

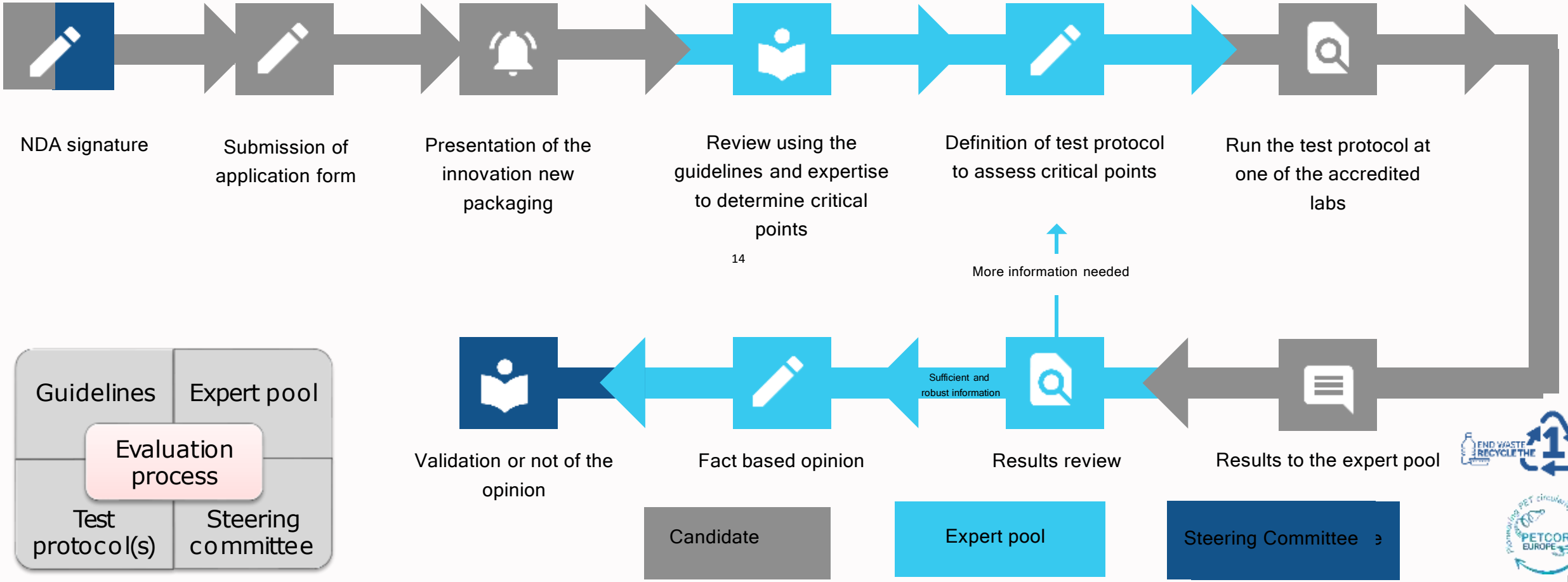
YES	CONDITIONAL	NO
Full compatibility – materials that passed the testing protocols with no negative impact	Limited compatibility – materials that passed the testing protocols if certain conditions are met	Low compatibility – materials that failed the testing protocols
		

Recyclability Evaluation Platforms (EPBP and TCEP)

- EPBP and TCEP strongly encourage all companies to bring their new PET bottle – tray solutions to the platforms in order to get an objective third party assessment of their recyclability.

- The platforms rely on strong processes and protocols for the assessments. As a result, these assessments are scientifically relevant, trustful and independent from a single sector's views. The assessment bodies cover the full value chain experience and expertise.

Recyclability Evaluation Platforms Evaluation process



Useful links

- EPBP
  - ✓ https://www.epbp.org/
  - ✓ https://www.epbp.org/design-guidelines/products
  - ✓ https://www.epbp.org/page/5/layout-link-2-test-procedures

- TCEP
  - https://www.tcep-europe.org/
  - https://www.tcep-europe.org/design-guidelines
  - https://www.tcep-europe.org/page/23/modus-operandi-and-testing-procedures

Key takeaways for today

- Strong expectations to significantly increase rPET for all PET applications
- To make PET circular, we must develop towards closed loop systems and avoid downgrading
- Bottle to Bottle PET and Tray to Tray recycling requires High Quality Food Grade rPET (ie high collection, Design guidelines, testing protocols)
- EPBP and TCEP offer food grade rPET long standing technical expertise and DfR assessments for PET value chain
- EPBP evolves the Design for Recycling Guidelines towards Design for Circularity (Multi-Loop Recycling Guidelines)
- EPBP and TCEP will continue to support innovative thinking and to support applicants offering PET technical expertise
- EPBP and TCEP are and will continue being the main source for DfR and test protocols for the CEN standardization

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Annual Conference 2024
www.petcoreeuropeannualconference.eu

Communications Campaign
www.recycletheone.com

END WASTE RECYCLE THE 1

Pioneering PET circularity since 1993

PETCORE EUROPE

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