



# PETcore Annual Conference 2023

Session 3 “Working Groups update”

**Recycling PET thermoforms working group.**



# Agenda

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**Introduction**

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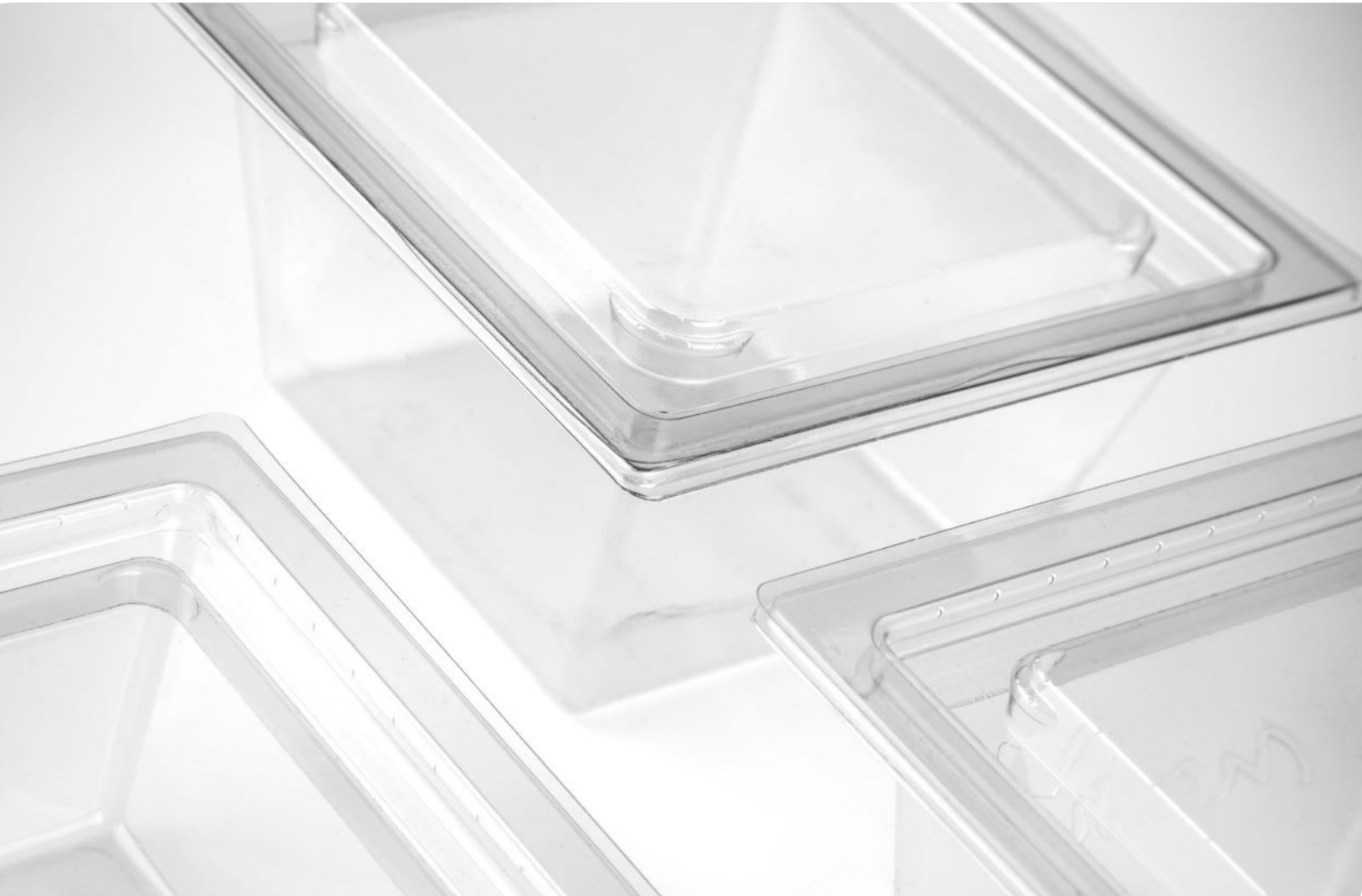
**Functional Barrier consortium**

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**TCEP update**

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**Functional Barrier consortium**

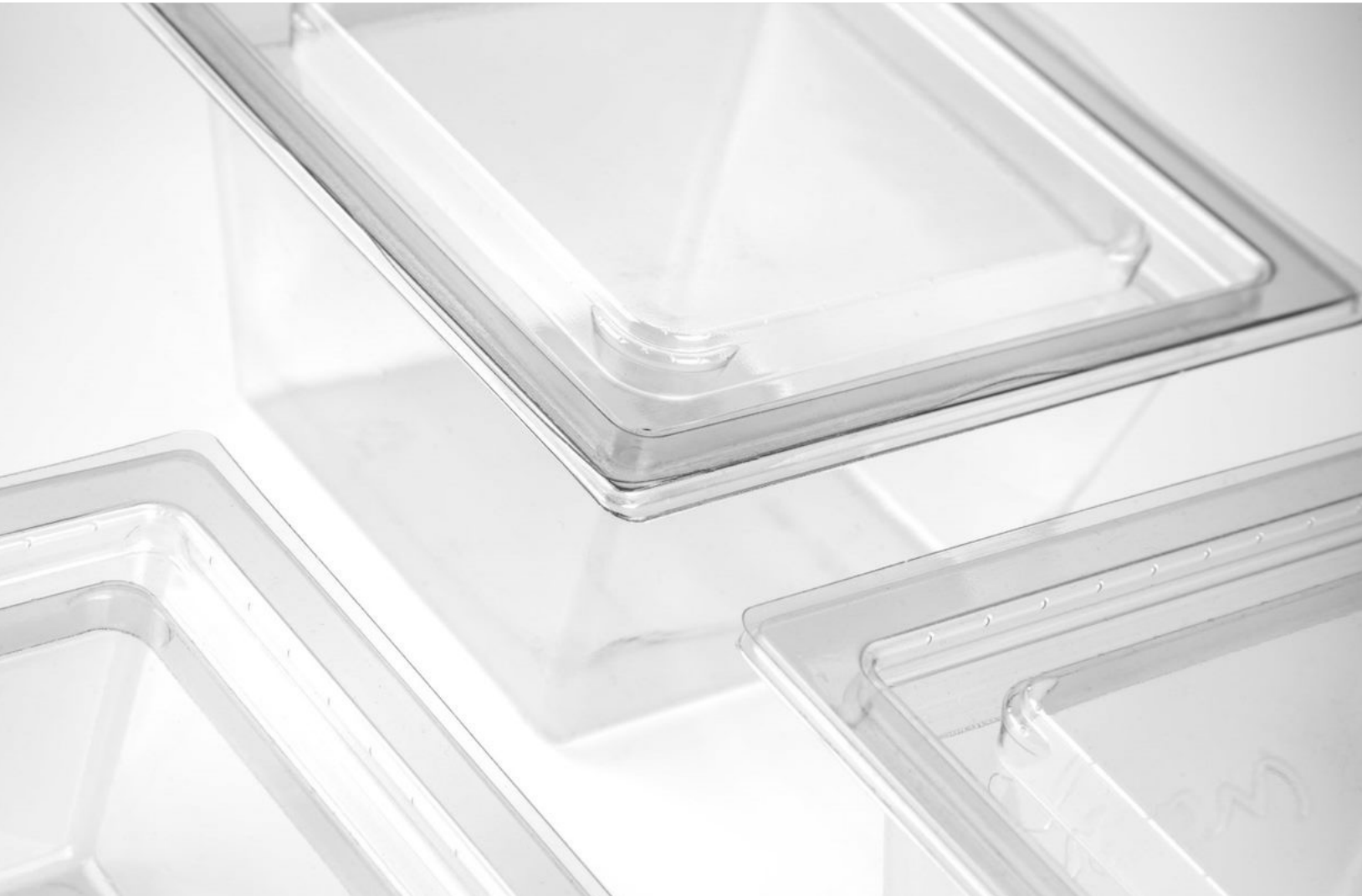
Jose Antonio Alarcón

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# FUNCTIONAL BARRIER CONSORTIUM

Background (EU 2022/1616)

- Regulation (**EU) No 10/2011** however does not provide clear support of the **excluded technologies**, as it does not define rules for partially depolymerized substances or oligomers, offcuts, and process scraps, and limits the **substances that can be used behind a functional barrier**.
- Among **those recycling technologies** that fall within the scope of this Regulation **and that are not listed as suitable recycling technologies**, the manufacture of recycled plastic materials and articles in which the **recycled plastic is used behind a plastic functional barrier**,
- In particular **there is insufficient information available on the ability of the applied functional barriers to prevent migration** to food of contaminants contained in the recycled plastic over an extended period of time. Therefore, **this technology should not be established as a suitable recycling technology yet**
- Therefore, **this technology should not be established as a suitable recycling technology yet**. However, unlike other technologies to be considered as novel for the purposes of this Regulation, the main principles of this technology are already understood. This allows to **lay down specific adaptations to the rules on novel technologies** concerning the use of this technology until a decision is taken on its suitability, and in particular to **add a requirement to verify the effectiveness of the barrier principle**.
- While on the one hand, given the number of existing installations, **it does not appear necessary to require the monitoring** of all these recycling installations in order to obtain sufficient data on contamination levels, on the other hand, given that, on the basis of the already available knowledge, **there are doubts as to the ability of the functional barriers to prevent migration of contaminants on the long term**, **it is appropriate to subject the placing on the market** of recycled plastic materials and articles manufactured with this technology **to the condition that additional testing has been carried out to guarantee that ability**.



### Article 32

## Specific transitional provisions applicable to the manufacture of materials and articles in which the recycled plastic is used behind a functional barrier

1. The following additional requirements shall apply to the operation of recycling installations that already manufactured recycled plastic materials and articles in which the recycled plastic is used behind a plastic functional barrier before 10 October 2022:

- (i) the decontamination installation manufacturing the recycled plastic as well as any post-processing installation adding the functional barrier is included in a **list of installations submitted by a developer** notifying the specific recycling technology applied by all the installations on the list in accordance with Article 10(2); and,

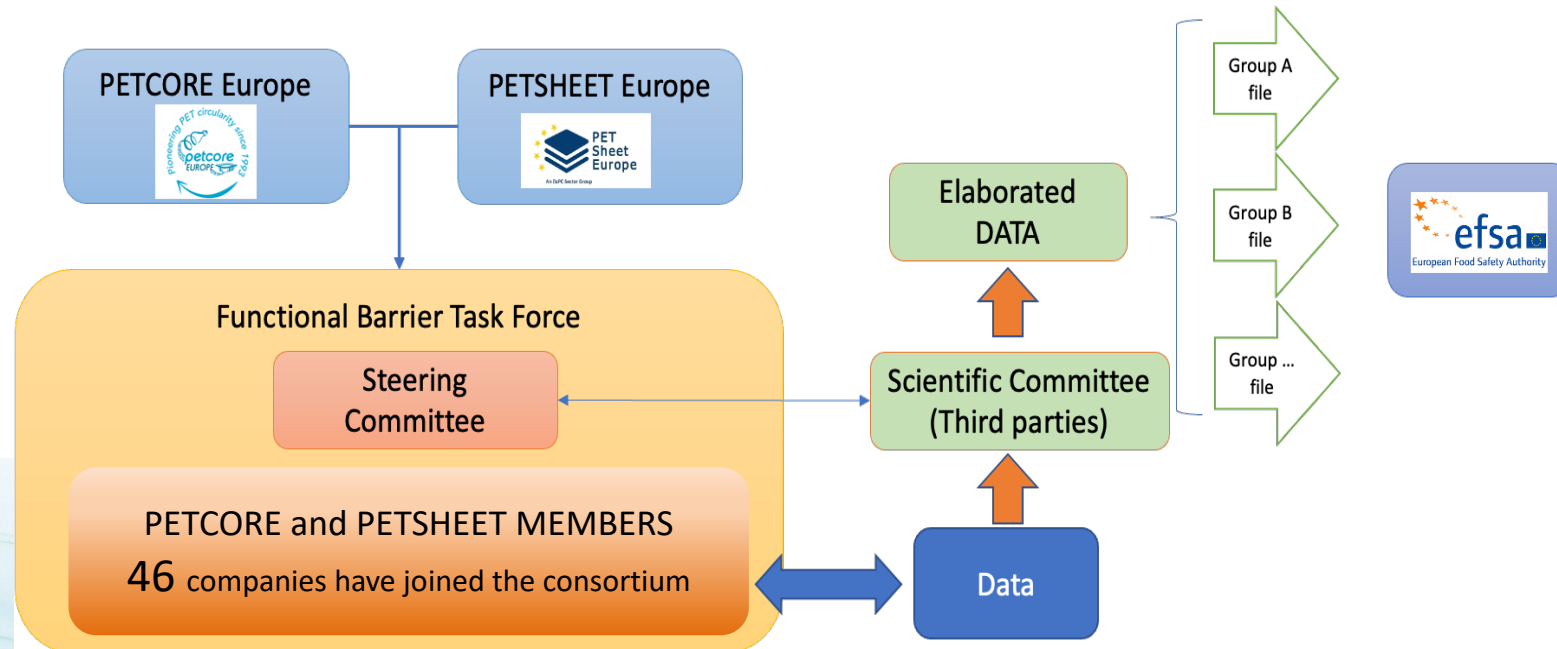
**The developer** shall communicate the list referred to in point (i) and a study report incorporating the test results required under point (ii) to the competent authority and to the Commission before 10 April 2023. A robust summary of the study shall be part of the initial report published in accordance with Article 10(4).

2. **Individual recyclers, converters** or other operators participating in the manufacture of the materials referred to in paragraph 1 **shall not act as developer**



# FUNCTIONAL BARRIER CONSORTIUM

- PETSHEET Europe and PETCORE Europe have agreed to partner and join efforts in supporting their members and the thermoforms industry for filing to EFSA to comply with article 32 on functional barrier of EU 2022/1616.
- The new regulation states that the individual companies should go through associations/consortium to submit aggregated files to EFSA for assessment.



**DISCLAIMER. Functional Barrier Cooperation Agreement. No guarantee is given by any Party as to an approval by the authorities under Regulation EU 2022/1616. In this respect the filing under article 32 of Regulation EU 2022/1616 shall be considered as an obligation of means.**





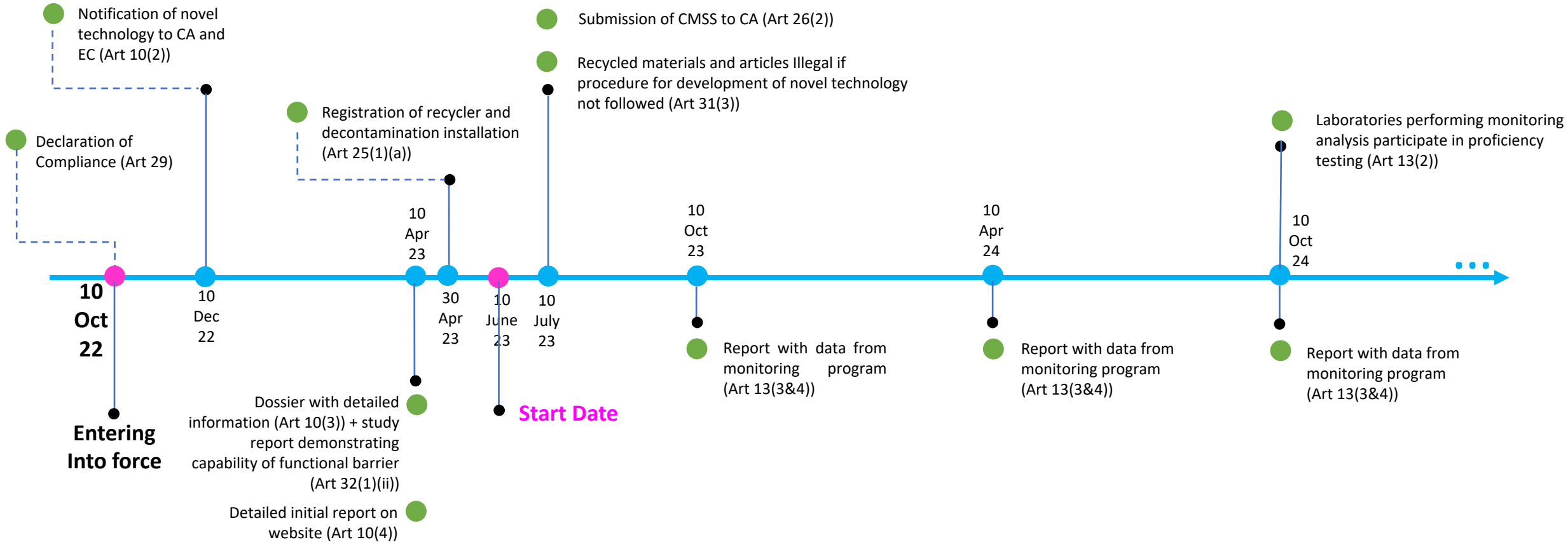
# FUNCTIONAL BARRIER CONSORTIUM





# FUNCTIONAL BARRIER CONSORTIUM

## Timeline



● Novel technologies already on the market prior to entering into force, that use the principle of functional barrier





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Samuel Pardo



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- PET-based trays contain on average around 55% of recycled plastics but this is just the first step already achieved towards circularity
- Besides separate collection growing trends and proper sorting of trays and other PET sheet-based products, design for recycling is a major tool to boost their circularity



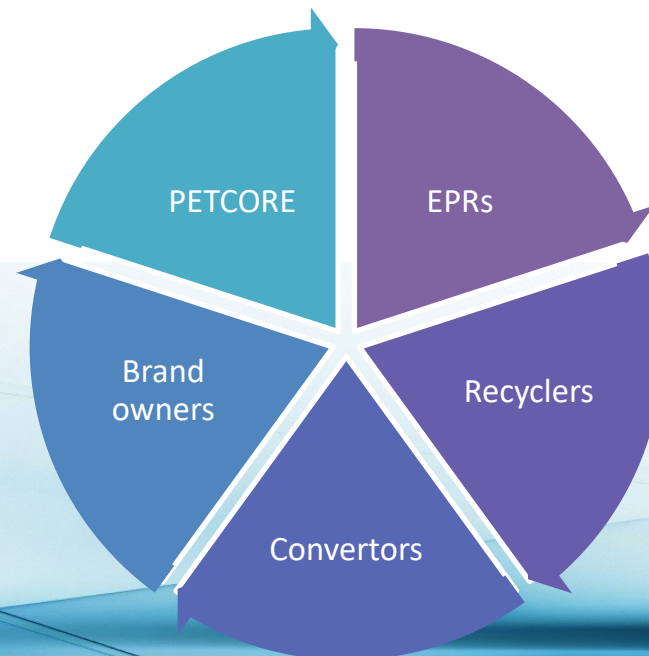
Which are TCEP main objectives?

- To drive and promote the **circularity** in the PET tray value chain, providing to industry design for recycling guidelines and package – technology technical assessments
- The mission of the platform is to give support to the value chain of thermoformed PET trays to improve recyclability of thermoforms and strive to circularity





- The Platform consists of technical experts in the field of PET thermoforms design, production and recycling, whose only objective is the evaluation of existing technologies and innovation and providing an independent and confidential assessment of their impact on the PET thermoforms recycling processes across Europe





# TCEP update

## Tray Circularity Evaluation Platform

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- Protocol and thresholds update

[EPTP-D-01 V0 Sept 21 - PET Trays Recycling Protocol](#)

[EPTP-M-01 V0 Sept 21 - ModusOperandi Tray Evaluation Platform](#)

[EPTP-P-00 V0 Sept 21 - PET STANDARD LABORATORY PRACTICES](#)

[EPTP-P-01 V0 Sept 21 - LAB Selection of Control Resin](#)

[EPTP-P-02 V0 Sept 21 - Preparation of PET Articles for Evaluation](#)

[EPTP-P-03 V0 Sept 21 - Granulating PET articles to flake](#)

[EPTP-P-04 V0 Sept 21 - Washing and sink-float separation of PET flakes](#)

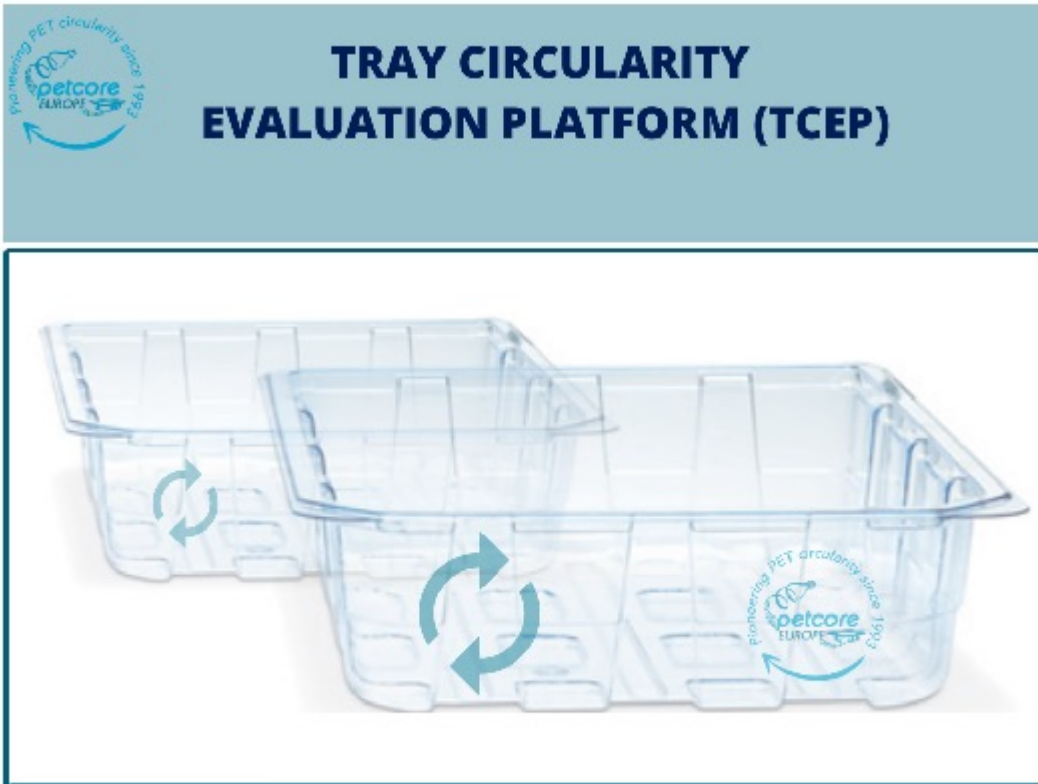
[EPTP-P-05 V0 Sept 21 - Elutriation of PET flake](#)

[EPTP-P-06 V0 Sept 21 - Melt filtration-peletizing and crystallization](#)

[EPTP-P-07 V0 Sept 21 - Solid State Polymerization of PET Pellets](#)

[EPTP-P-08 V0 Sept 21 - Sheet Extrusion](#)

[EPTP-P-09 V0 Sept 21 - injection Molding 3mm plaques](#)



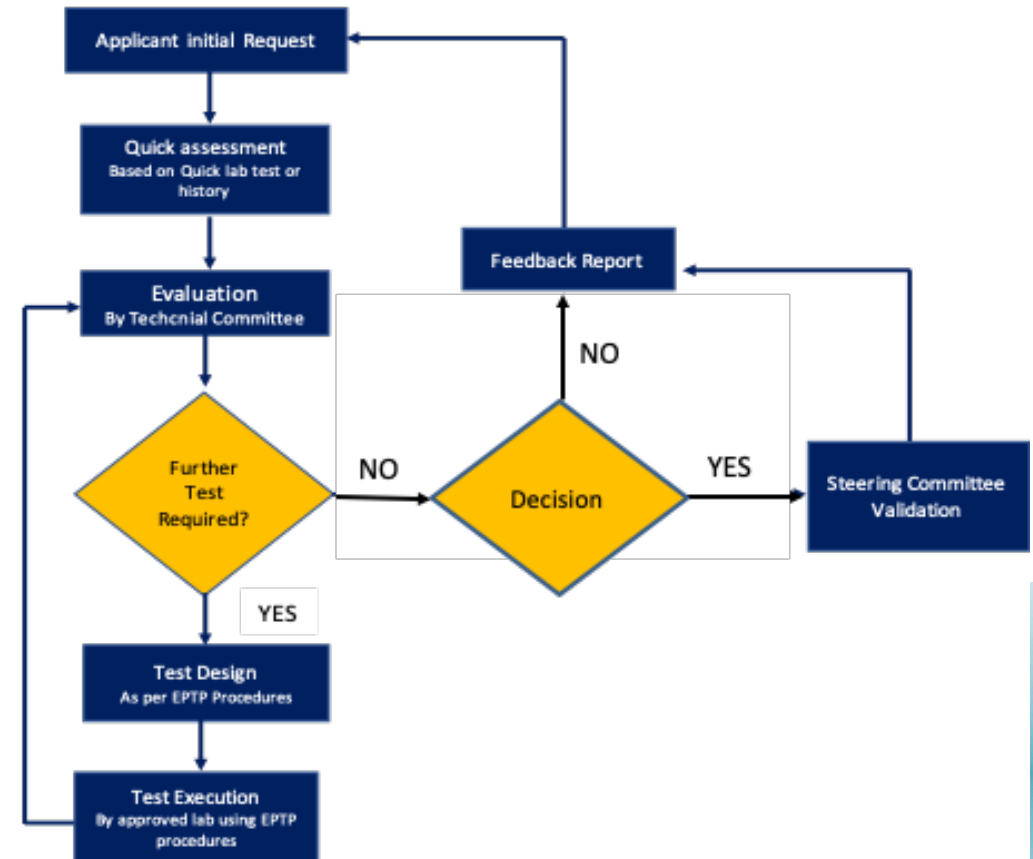


- Application procedure
  1. Fill in the application form
  2. Countersign the Secrecy Agreement between Petcore Europe and the Applicant. This is the same for all applications
  3. Both documents can be downloaded <https://www.petcore-europe.org/recyclability-evaluation-platforms.html>





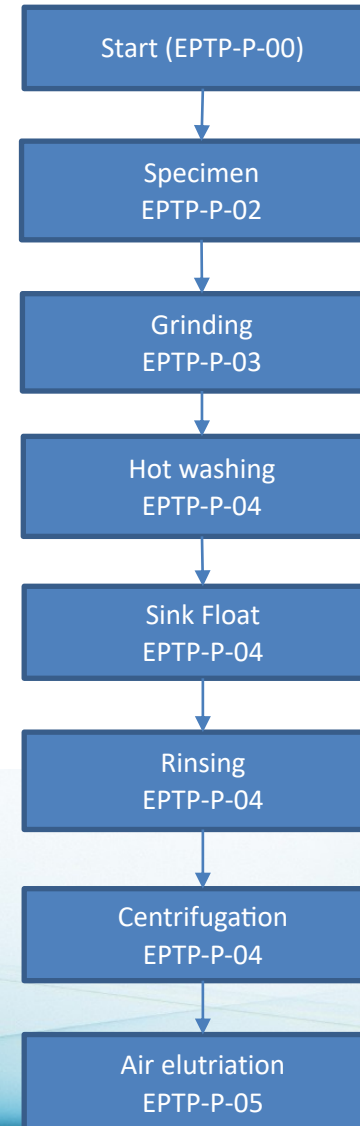
- Application procedure
4. Initial feedback on existing documents and test results already available by applicant





- Application procedure

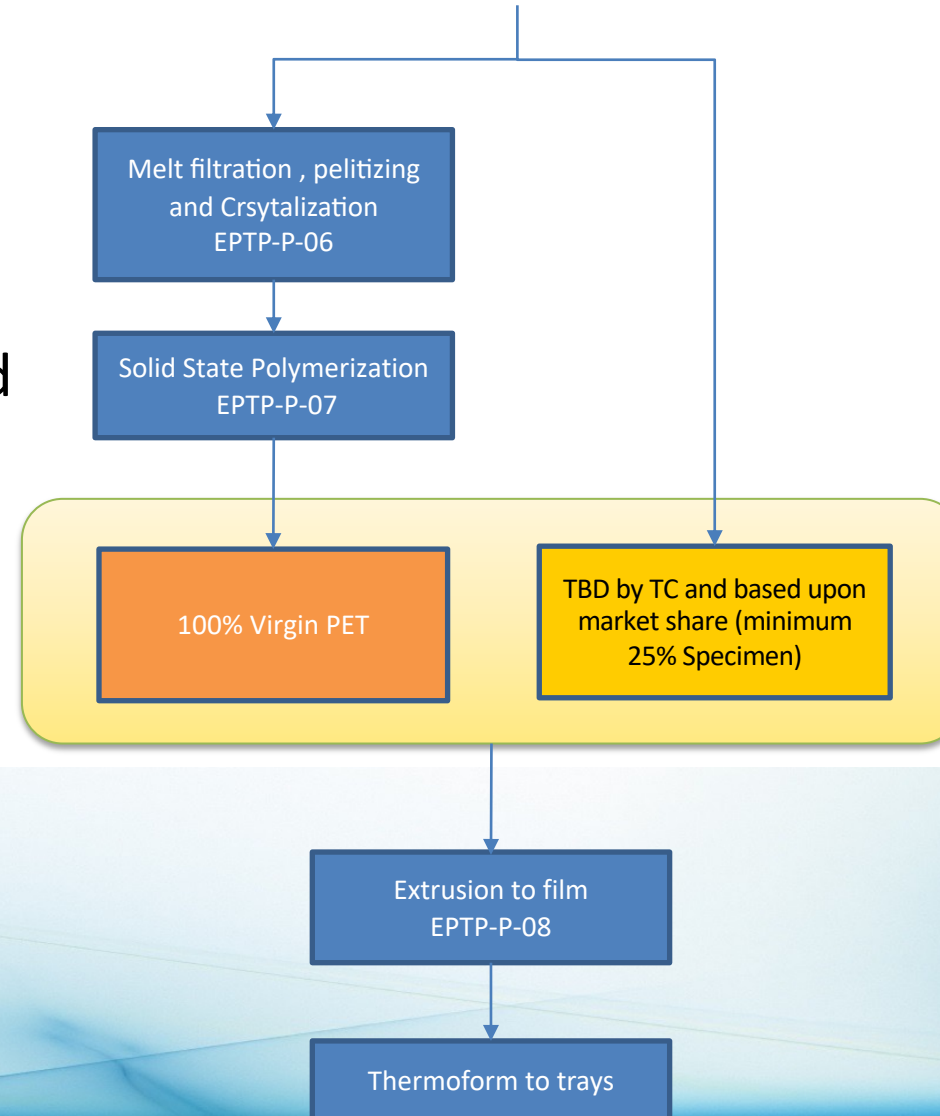
### 5. Test procedure execution at qualified laboratory





- Application procedure

### 5. Test procedure execution at qualified laboratory







- Application procedure

### 5. Endorsement



#### ENDORSEMENT LETTER

Brussels, XXXXXX

The Technical Committee of the Tray Circularity Evaluation Platform (TCEP) was requested to assess the impact of:

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX

to be introduced in the PET tray market, market guaranteeing compatibility with actual European PET thermoforms recycling.

Based on the TCEP assessment's outcome and current market knowledge in 2022, the Tray Circularity Evaluation Platform (TCEP) concludes that:

The use XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX will not have a negative impact on current European PET tray Recycling streams. Thus, an endorsement is given for a market penetration up to XXXXXXXXXXXXXXXXXXXXXXX%.

TCEP will continue to monitor any effect of the materials listed above on EU recycling streams.

Upon prior notice to applicant the TCEP reserves the right to update and change the conditions of this endorsement at any time in accordance with the most recent technologies, assessments and experience.

The Tray Circularity Evaluation Platform (TCEP) is a voluntary European industry initiative that provides PET thermoforms design guidelines for recycling, evaluates thermoform packaging solutions and technologies, and facilitates understanding of the effects of new PET thermoforms innovations on recycling process. The TCEP initiative fully supports the economic and Environmental sustainability of the European PET value chain.



### **Key achievements in 2022:**

- Expand the scope of the platform from “recyclability” to “circularity” which is a wider scope
- Test a number of innovative proposals by the applicants related to recyclability compatibility, securing the confidentiality
- Set up rules for testing and reference samples when including secondary elements such as lids or labels
- Consider more laboratories for testing thus offering broader options to applicants and improve speed obtaining results to complete assessments. Laboratories under consideration are:
- Continuous monitor of thresholds on the protocol based on market and industry knowledge and acceptance
- Testing phase of discussion forum for technical committee members
- 8 applications reviewed and 3 endorsements granted. This will be continuously monitored based on state-of-the art recycling infrastructure and European recycled thermoforms market



### **2023 and beyond:**

- Finalize design guidelines for Coloured and Multilayer
- Calibrate protocols and qualify additional labs
- Quarterly reviewed on positive endorsements
- There are two vacants both on the steering and technical committees for brand owners or retailers. Volunteers contact
  - [argiris.dabanlis@petcore-europe.org](mailto:argiris.dabanlis@petcore-europe.org)
  - [raphael.jaumotte@petcore-europe.org](mailto:raphael.jaumotte@petcore-europe.org)





Call to apply!

Receive and review more innovations to evaluate their suitability for endorsement

Contribute to grow PET thermoforms recycling stream through application of DforR

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**Email:** [management@petcore-europe.org](mailto:management@petcore-europe.org)  
**Contact:** Julie Legrain  
**Website:** [www.petcore-europe.org](http://www.petcore-europe.org)





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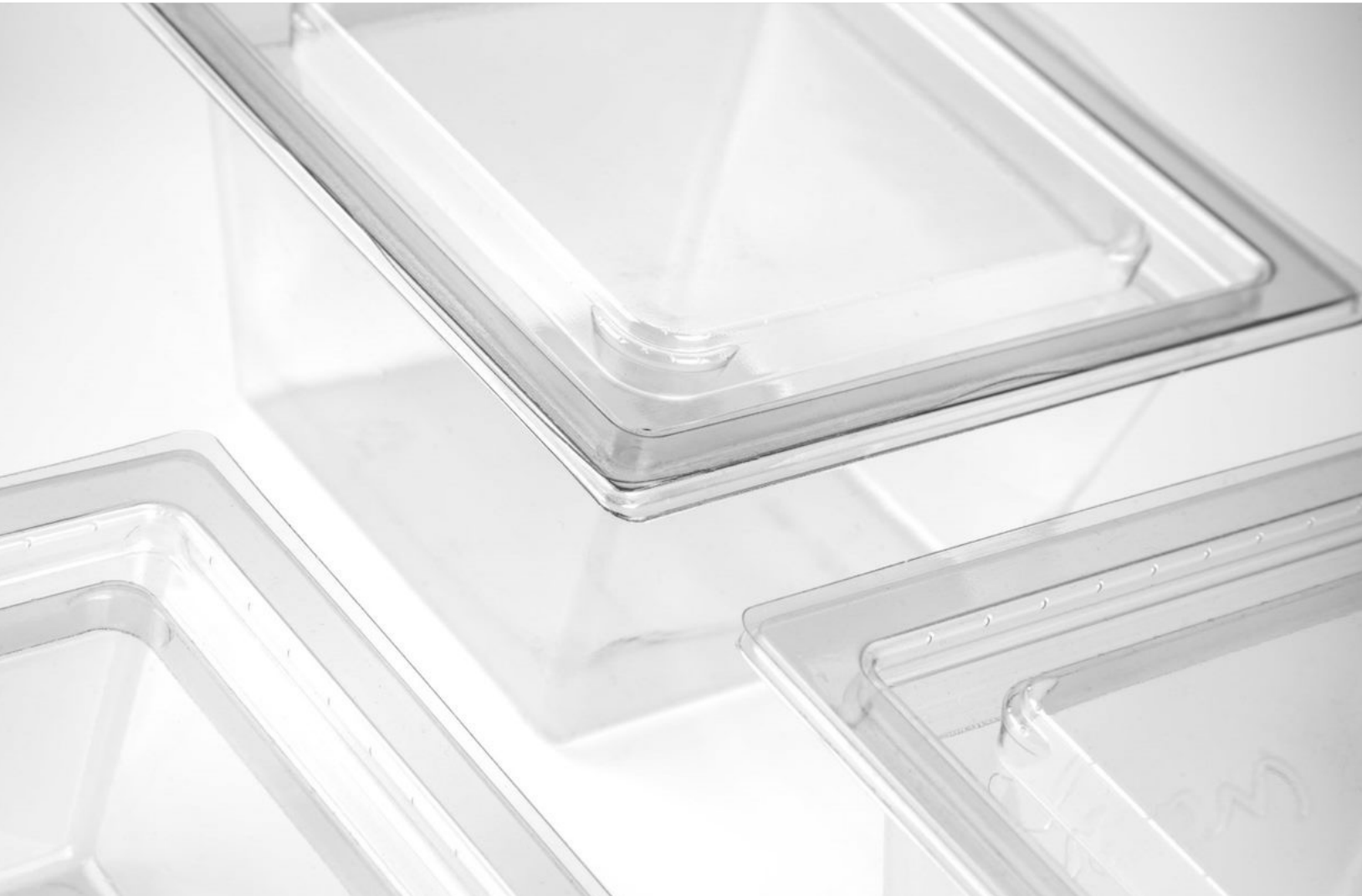
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# Expert Panel



Moderated by Paolo Glerean



EPR. Juliette Beaulieu



Circularity. Luca Stramare



Recycler: Francois Lagrue



Multilayer recycler: Sergio Collado



Converter: Aron Damen





**Call to action!! We need your contribution.  
Join TGW!**

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