

# PETCORE EUROPE



[www.petcore-europe.org](http://www.petcore-europe.org)



# Thermoforms overview and threats

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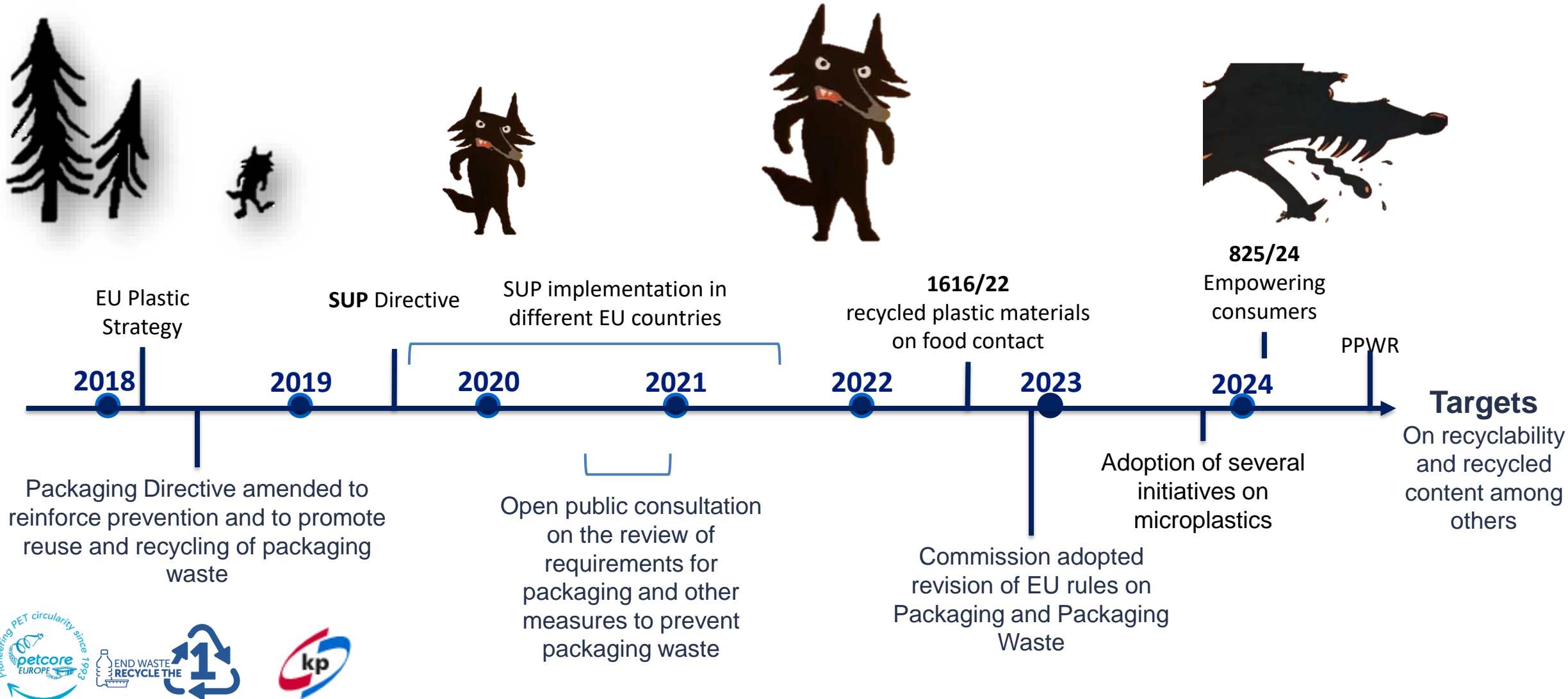
*Towards circularity of PET thermoformed Packaging*

Granada, June 2024



# Legislative challenges

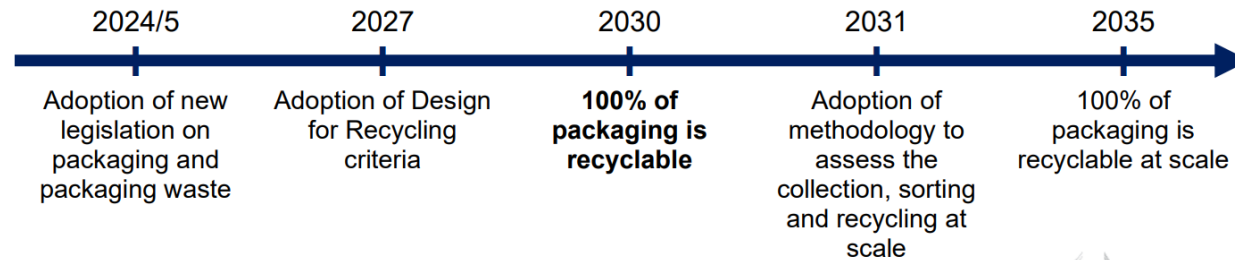
Facing a transformative shift towards more sustainable products.



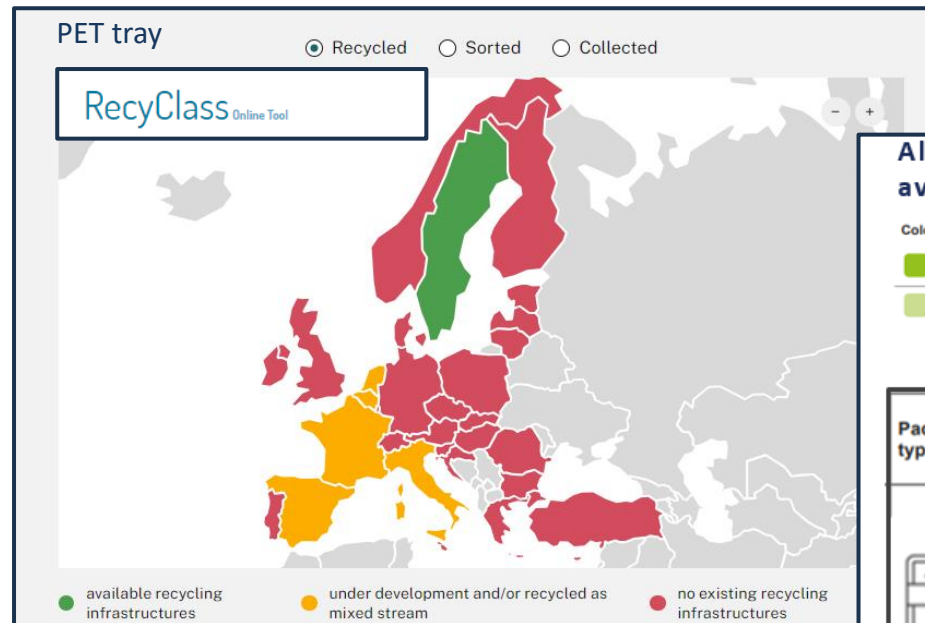
# Recyclability



## Long journey for PET trays to demonstrate recyclability at scale



	2030	2035	2038
Recyclability	D4R	At scale	
A	≥95%	>95%	>95%
B	≥80%	>80%	>80%
C	≥70%	>70%	



**Aldi guidelines. Annex1 current situation regarding available recycling infrastructure (country-specific)**

Colour code:

- Collection or recycling infrastructure available
- Infrastructure in development / test phase
- Infrastructure built up by AL
- Collection or recycling infrastructure (with restrictions) available
- No infrastructure implemented
- No reliable information available

		ALDI Nord									
Packaging type	Material type	Belgium	Spain	France	Hungary	Netherlands	Poland	Romania	Germany		
Trays/shells	PET	Available	Available	Available	Available	Available	Available	Available	Available	Available	Available
		Available	Available	Available	Available	Available	Available	Available	Available	Available	Available
		ALDI SOUTH									
		Austria	Australia	Switzerland	United Kingdom	India	Ireland	Italy	Russia		
		Available	Available	Available	Available	Available	Available	Available	Available	Available	Available

Regardless PET is considered the most recycled plastic material, PET trays are considered as non-recyclable in most of the European countries!!





# Recyclability



## Developing standards

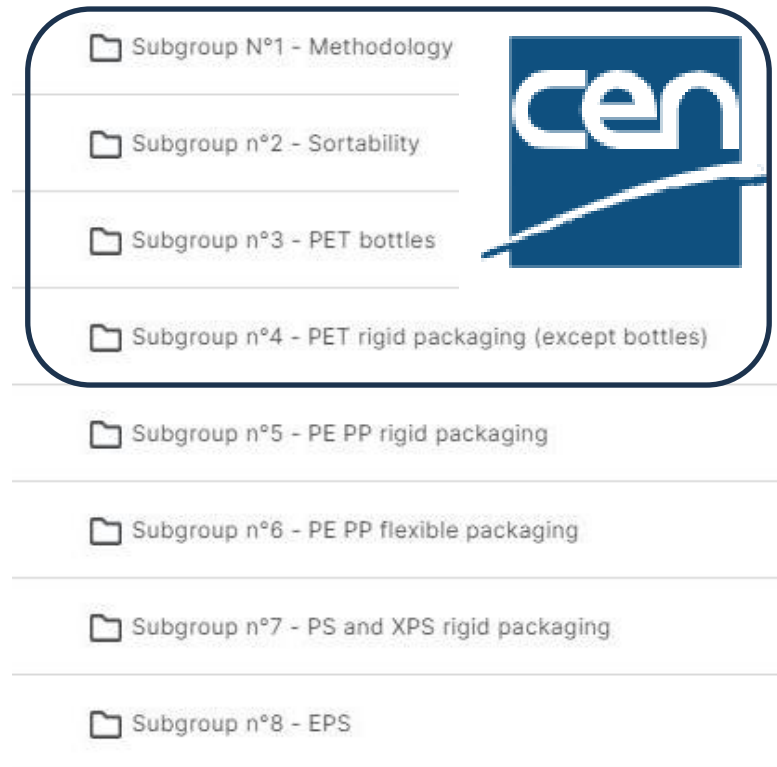
EU Commission has sent a request to develop **Design for recyclability and Recyclability testing protocols** and elevate them once ready **to be considered in the PPWR**.

**The European Committee for Standardization (CEN)** is in charge of developing such standards. On the CEN TC there are members of all national standardization bodies from EU Member States: DIN, AFNOR, UNE, UNI, etc.

**PETcore is actively collaborating** as volunteer association providing comments and guidance in several working groups although without voting/decision making rights.

Draft documents have been agreed by March 2024 and formal revision should be performed until end of summer by State Members

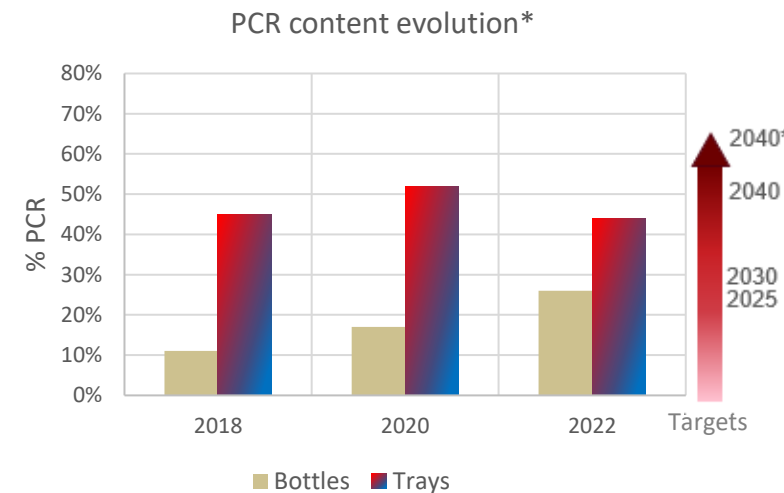
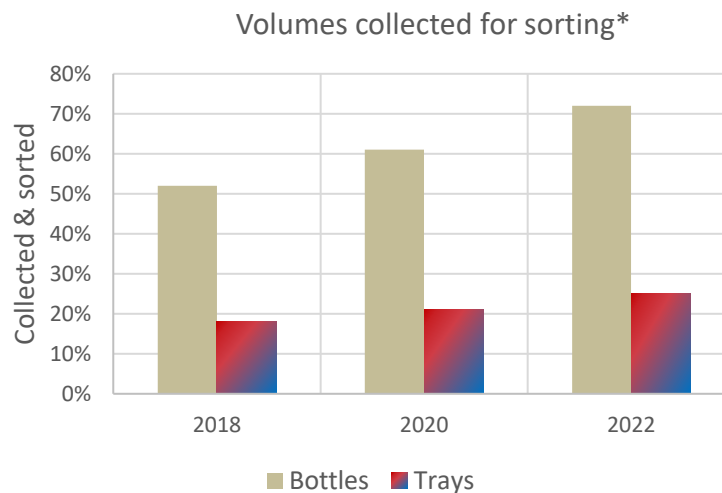
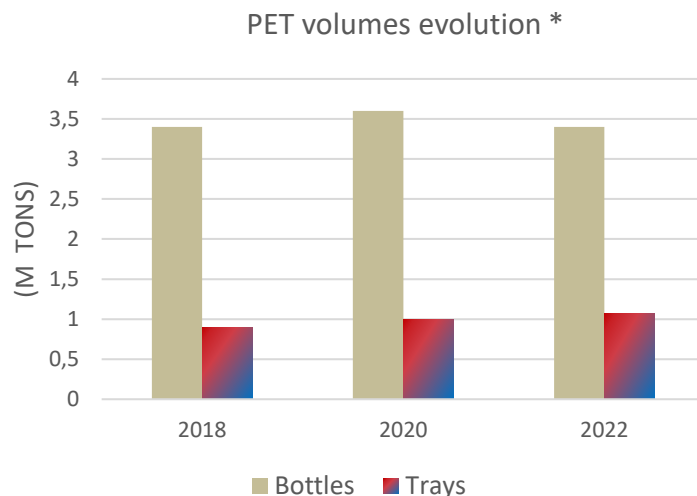
[CEN and CENELEC - CEN-CENELEC \(cencenelec.eu\)](https://cencenelec.eu)



# Recycled content



## PCR Increasing demand will difficult PPWR targets consecution



- Regardless volumes placed in the market remain stable, collection of bottles is showing a good increasing trend while trays are progressing slowly
- Despite till now trays have been exceeding mandatory targets, we will struggle to source PCR in the future as it will become more widely used in other applications such as bottles that are moving faster to comply with more demanding targets
- Recycled content originating from outside of the EU will be probably needed to meet targets. Will be necessary to prove that it has been recycled in facilities complying with environmental rules equivalent to those applicable to the EU ones. Methodology for assessing, verifying, and certifying the equivalence of those materials must be developed and implemented in real practice.

\* PET market in Europe. State of play 2018 and 2020 by Eunomia  
PET market in Europe. State of play 2022 by ICIS

# Certifications



## Developing standards and certification programs



**The Tray Circularity Evaluation Platform (TCEP)** created by PETCORE EUROPE, has the mission of giving support to the value chain of thermoformed PET trays to improve recyclability of thermoforms and strive to circularity.

[Design guidelines.](#)

[Technical opinions](#)

Now **recyclability can be third party certified through ECOSENSE** foundation **RETRAY** will verify compliance with the requirements that must be met in the PET sheet manufacturing, thermoforming and packaging processes

- Traceability: both in the introduction of recycled PET and in the management of the PET waste generated for subsequent recycling
- Quantification of the recycled content according to the requirements of standard EN 15343
- Recyclability: verifying the guidelines established by PETCORE EUROPE.

<https://www.petcore-europe.org/certification.html>

<https://www.tcep-europe.org/page/26/third-party-certification>



# Certifications



## Closing the loop certification



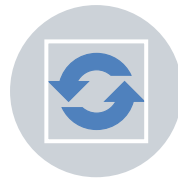
To comply with the Directive 2024/825 “consumer empowering” and “Green Claims” draft Directive.



Global scope: EA (European Cooperation for Accreditation), IAF (International Accreditation Forum).



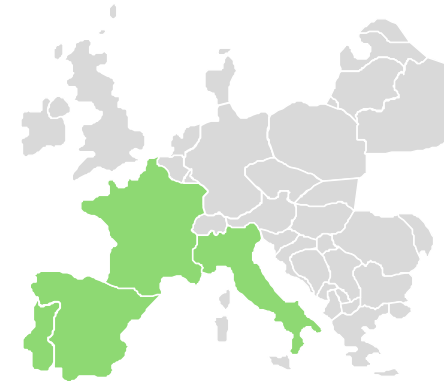
Certification under accreditation ISO/IEC/17065.



Compliance with the EN: 15343 requirements.



- Recycling content **PRODUCT** and **PROCESS**.
- Traceability and waste management.
- Post-consumer recycling content for **ECOMODULATION**.
- Tray to tray content
- Environmental **CLAIMS** certified.
- To comply with **TAXES**: Regulation 2022 No. 117 (UK) or Law 7/2022 (Spain)



<https://www.petcore-europe.org/certification.html>

<https://www.tcep-europe.org/page/26/third-party-certification>

<https://ecosensefoundation.org/>



# Closing the loop at scale

Will demand a high degree of collective action and innovation



- **1000k tones of PET trays are wasted each year!**
- PET trays meeting **PPWR targets** will demand at least 500/600 ktons of PCR by 2040
- **Recyclability** at scale of PET trays has to be developed and this will demand a high degree of **collective action** with involvement of all members of the value chain.
- **Standardization and certification** of recyclability and recycled content are a must.

**Join PETcore Termoforms working group to collaborate!**



# TWG ACTION PLAN

## THERMOFORMING WORKING GROUP OPERATIONAL PLAN (DRAFT 2024 .- one pager)

<b>Mision</b>	To demonstrate that PET thermoform is the most sustainable packaging to protect food, minimize food waste, and that trays are recyclable back into new PET thermoformed packaging.				
<b>Vision</b>	All PET Trays (Pot and Tubes?, Cups e.g. Plane) are collected and recycled				
<b>Improvement Opportunities</b>	<b>Collection And Sorting (Technology and Operation)</b>	<b>Recycling (Technology and Operation)</b>	<b>Food Compliance (FB, Atil 6, 5% Non Fod)</b>	<b>Standarization-TCEP</b>	<b>Communications and Public Relations</b>
<b>STRATEGY</b>	<ul style="list-style-type: none"> <li>- Make the PTT been collected</li> <li>- Foster implementation of the best technologies</li> <li>- Involve all the stakeholders (packers, retailers....)</li> <li>- Find breakthrough opportunities</li> <li>- Promote EPR's participation.</li> <li>- Align all the initiatives across Europe</li> <li>- Promote technologies for separation of trays</li> <li>- Work with technology providers for sorting.</li> <li>- Promote joint development between EPR and. Recyclers</li> </ul>	<ul style="list-style-type: none"> <li>- Promote and Support best technological options for trays.</li> <li>- Demonstrate trays can be effectively recycled</li> <li>- Implement options for delamination.</li> <li>- Support application of EU Founding for technological developments</li> <li>- Align all the initiatives across Europe</li> </ul>	<ul style="list-style-type: none"> <li>- Implementation of the FB Consortium.</li> <li>- Other options for Decontamination Technologies</li> <li>- NIAS analysis</li> <li>- Potential actions to overcome Article 6 (EU2023/1616)</li> </ul>	<ul style="list-style-type: none"> <li>- Ensure Thermoforms is compatible with collection, sorting and recycling Capabilities installed.</li> <li>- Establish and maintain DfR Guidelines.</li> <li>- Maintain and update Recyclability protocols</li> <li>- Support the industry on the evaluation process.</li> <li>- Demonstrate to Authorities effectiveness of the system</li> </ul>	<ul style="list-style-type: none"> <li>- Promote the image of the PET trays.</li> <li>- Maintain direct line with policy makers</li> <li>- Work with other stakeholders for alignment</li> <li>- Strength relation with retailers</li> <li>- Strength relation with brand owners and packers</li> <li>- Promote Europe harmonization in Collection Activities</li> </ul>
<b>TASK FORCE GOALS</b>	Report State of the Art Strategies and Technologies for Tray collection to all the stakeholders  Promote and deploy the best technologies available for effective selection of Quality Tray Bales	Report State of the Art Technologies for Tray Recycling to all the stakeholders	Demonstrate food contact compliance of rPET from trays in both direct contact and functional barrier technologies.	Reference body for the Recyclability evaluation of Thermoformed packaging.	Deploy activities for the promotion of PET trays as the most sustainable solution for thermoformed packaging.
<b>LEADER</b>	Antoine B. M. Braga	Liliana/M.Kamer, C. Navone	Samuel P, S. Cectto, R. Silva	Sergio; Luca; ?	Mercedes; Maria; Jose Antonio

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<b>INITIATIVES</b>	<ul style="list-style-type: none"> <li>• Overview on different EPR Schemes (Eco modulation)</li> </ul>	<ul style="list-style-type: none"> <li>• Benchmarking on PET recycling Equipment across Europe</li> <li>• Support development of specific Tray recycling Technologies -&gt; <b>Starlinger: by implementing preparatory options (delamination/ preparatory steps) which will impact the recycling process positively</b></li> </ul>	<ul style="list-style-type: none"> <li>• Coordinate actions and procedures with Recyclers, EPR....</li> <li>• Effective implementation of the protocol.</li> </ul>	<ul style="list-style-type: none"> <li>• Effectively deploy the activities of TCEP</li> </ul>	<ul style="list-style-type: none"> <li>• Communication plan</li> </ul>
<b>and</b>	<ul style="list-style-type: none"> <li>• Benchmarking sharing information about EPR's.</li> </ul>	<ul style="list-style-type: none"> <li>3) Cooperate with the other TF to showcase on existing material streams in the EU how trays can be effectively recycled and thus close the loop in tray-to-tray</li> </ul>	<ul style="list-style-type: none"> <li>• Coordinate the different approved Labs operations.</li> </ul>	<ul style="list-style-type: none"> <li>• Engage new labs on the tray circularity protocols</li> </ul>	<ul style="list-style-type: none"> <li>• Stakeholders involvement</li> </ul>
<b>PROJECTS</b>	<ul style="list-style-type: none"> <li>• Engage all the countries on tray recyclability</li> <li>• Promote test of sorting improved technologies for tray selection</li> <li>• Support application of EU Funding for technological developments</li> </ul>	<ul style="list-style-type: none"> <li>4) Support with trials and exchange feed-back, ideas</li> <li>5) Extend the trays recyclability with help of recycling technologies by addressing and optimizing high yield vs. fines matter</li> <li>6) Integrate results for testrun in DfR</li> </ul>	<ul style="list-style-type: none"> <li>• Facilitate Petitioners on the evaluation process</li> </ul>	<ul style="list-style-type: none"> <li>• Prepare an easy to use web page, including initial self-evaluation protocols.</li> <li>• Deliver effectiveness in the actions</li> </ul>	<ul style="list-style-type: none"> <li>• Participation in forums, conferences and events</li> <li>• Share wining experiences with Key Social stakeholders</li> </ul>

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Communications Campaign

[www.recycletheone.com](http://www.recycletheone.com)



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