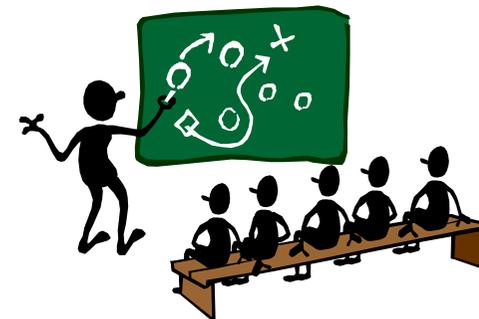




# PET TRAY RECYCLABILITY EVALUATION PLATFORM AND EPBP UPDATE

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## RECYCLABILITY FOR PACKAGING



- In the past... an **optional**  
Nice to have after all other requirements were met
- In the present... a **value**  
To be communicated to customers (*100% recyclable*)  
As part of companies' sustainable strategies  
To avoid higher packaging fees from some EPR schemes
- In the future... a **must**  
Mandatory requirement: all plastic packaging placed on the EU market by 2030 must be reusable and recyclable **at scale**



## RECYCLING... INTO WHAT?



- PET bottles have a long history of being recycled at scale
  - In the past... fibres
  - Today... thermoforms, bottles and fibres
  - Tomorrow... more and more into beverage bottles

- *Mandatory targets*
- *Voluntary pledges*



*Bottle to bottle recycling  
as standard in the future*

- Today, PET thermoforms are the main application for rPET from PET bottles recycling
- *Tomorrow, PET thermoforms have to close the loop with PET tray to tray recycling*

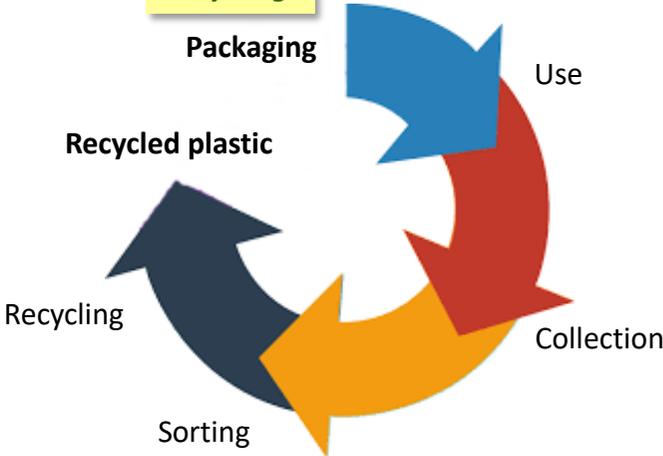


# CLOSING THE LOOP

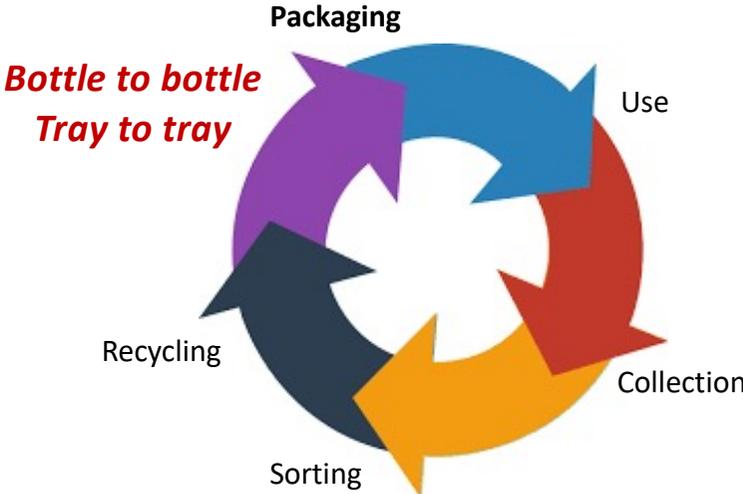
## DESIGN FOR RECYCLING WITH THE END IN MIND

### *Recyclable PET packaging*

*Design for recycling*



*Design for closing the loop*





# PROTECTING PET RECYCLABILITY

## EUROPEAN PET BOTTLE PLATFORM (EPBP)

- Voluntary initiative created in 2007 by:
  - EPRO
  - Plastic Recyclers Europe
  - Petcore Europe
  - UNESDA and NMWE (former EFBW)



**TODAY BOTTLE TO BOTTLE PET  
RECYCLING IS POSSIBLE, BUT...**



***Innovation without disruption***

***Protect the industry's right to  
innovate and bring new PET bottle  
packaging solutions to the market  
without disrupting the existing PET  
recycling value chain, with special  
focus on bottle-to-bottle recycling***



# THE PET BOTTLE-TO-BOTTLE VALUE CHAIN



*There are many things that can go wrong  
Not all of them can be captured by a fixed test protocol*

# EPBP STRUCTURE

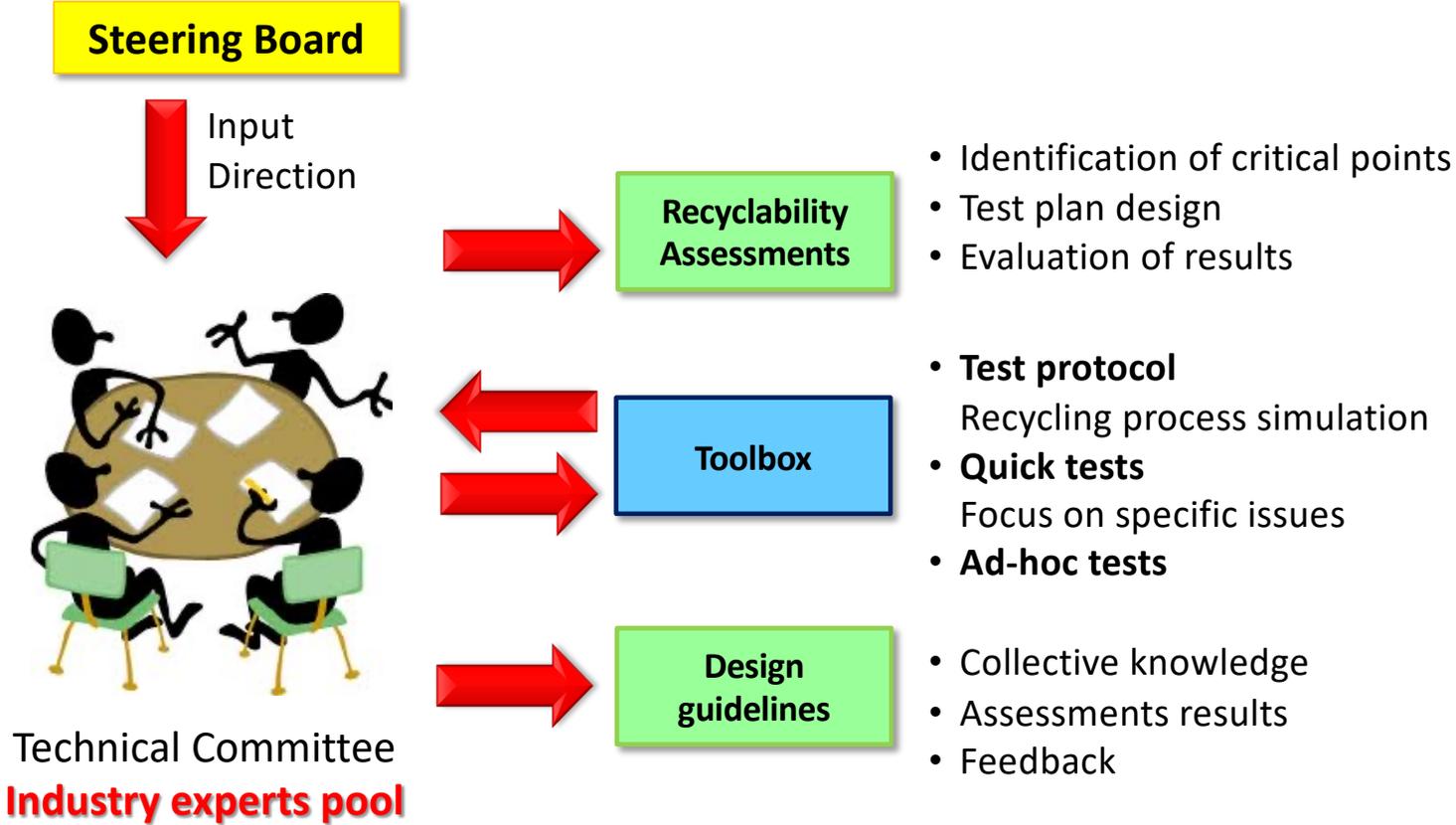


- **Voluntary initiative**
  - No legal status/budget: support from individual associations
- **Steering Board (SB) – The Value Chain**
  - 8 representatives, appointed by the supporting Associations
  - Direction, goals, approval of external communication
- **Technical Committee (TC) – The Expert Pool**
  - 13 PET experts, **representing the supporting Associations**
  - covering the whole PET and rPET value chain
  - Guidelines, technical documents, **assessments**
- **Secretary General**
  - Management and support
  - Communication



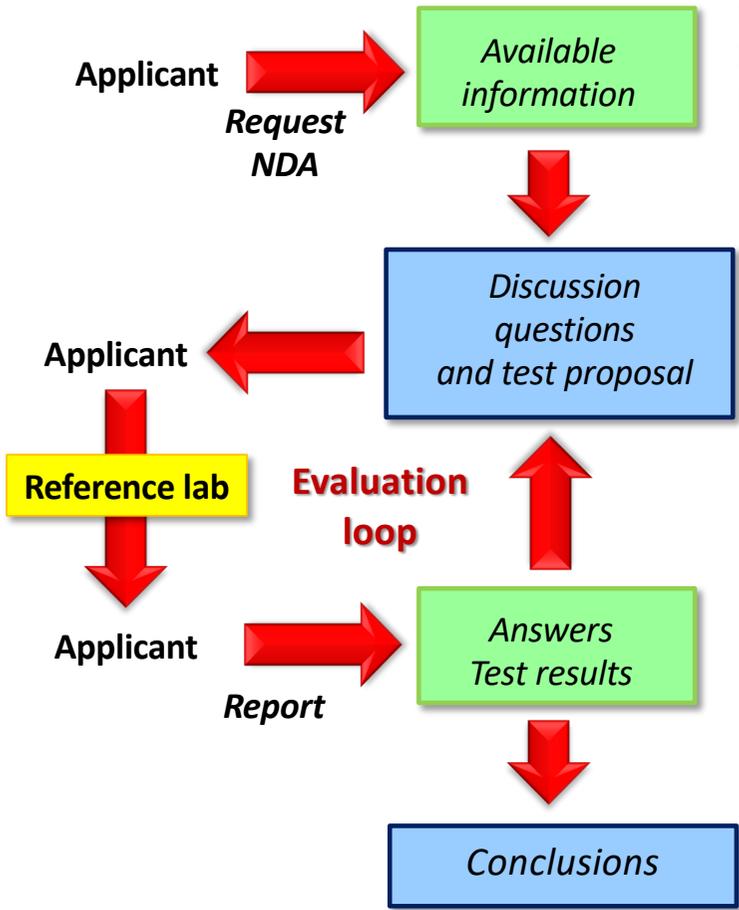
# THE TECHNICAL COMMITTEE

## THE EPBP ADDED VALUE





# EPBP EVALUATION WORKFLOW TESTING + EXPERT JUDGEMENT



Details of packaging solution  
Intended market(s)  
Previous tests results

### Industry experts pool

Focus on what could go wrong  
Specific test plan design



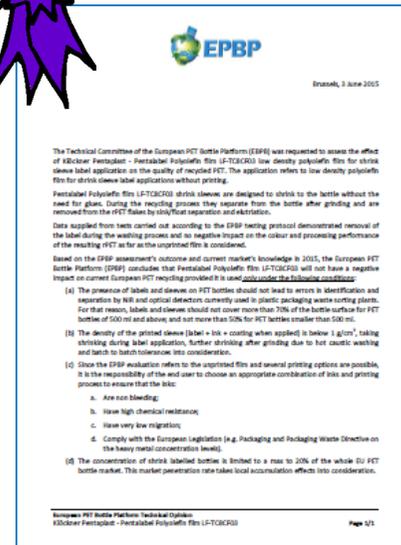
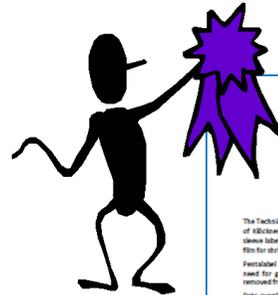
# ASSESSMENTS RESULTS



Fully compatible



Compatible, provided some conditions are met



Final statement



Assessment process covered by NDA  
Applicant can leave at any time or  
keep final statement confidential  
**TC experts individually bound**

## DESIGN GUIDELINES



- **Clear and light blue** transparent bottles
- **Colored** translucent bottles
- **Opaque** bottles (in progress)
  
- **Key principles**
  - Avoid the use of materials and/or components that impact the PET sorting and recycling process or reduce the quality of the recycled PET
  - Reduce the amount of non-PET components to allow for ease of separation and efficiency of recycling
  - Design components, such as closures and labels, so that they can easily, safely, cost-effectively and rapidly be separated and eliminated from the recycled PET *and recycled in a separate stream*
  - **The goal of improving the recyclability of PET bottles cannot compromise product safety**



# DESIGN GUIDELINES



	<b>YES</b> Full compatibility – materials that passed the testing protocols with no negative impact	<b>CONDITIONAL</b> Limited compatibility – materials that passed the testing protocols if certain conditions are met	<b>NO</b> Low compatibility – materials that failed the testing protocols OR
<u>Container</u>			
<u>Size</u>			
<u>Colours</u>			
<u>Barrier</u>			
<u>Additives</u>			

**Guidelines are interactive** and updated on a regular basis to reflect latest EPBP knowledge base and experience on PET bottle recycling.  
Please check <http://www.petbottleplatform.eu> for the latest version.

# ACHIEVING INNOVATION WITHOUT DISRUPTION IN A CIRCULAR ECONOMY



- **Clear direction from the SB**

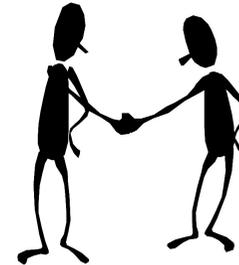
- Focus on bottle to bottle recycling

- **Strong knowledge base**

- 13 TC experts, representing more than 250 years of collective experience in all parts of the PET bottle value chain
- Tried and tested flexible approach, with focus on critical points
- Comprehensive test toolbox

- **Support to industry**

- Design guidelines
- Quick tests
- Position papers



# PET THERMOFORMS READY TO TAKE THE CHALLENGE



- **PET Thermoforms Platform** by "Smartly cloning" the EPBP
  - Full value chain representation under Petcore Europe
  - EPBP recyclability assessment model
  - Adaption to thermoforms value chain and peculiarities
- **Steering committee**  **Appointed**
  - Direction and external communication approval
- **Technical committee**  **Appointed**
  - Expert pool working under confidentiality
  - Extensive value chain knowledge base
  - Similar tasks to EPBP



# PET THERMOFORMS

## WHERE DO WE STAND TODAY

- Toolbox
  - Main test protocol defined
  - First reference lab identified
  - Quick tests under development
- Design guidelines
  - Based on existing knowledge base
  - Published for clear PET trays
- NDA for individual experts and applicants defined
- Recyclability assessments starting soon

 **Stay tuned!!!**



**THANK YOU FOR YOUR ATTENTION!**

