Standardization work in progress on PET rigid packaging (except bottles)

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Implications of the PPWR

- Stricter Ecodesign and Recyclability Requirements (Packaging designers)
- Mandatory Minimum Recycled-Content Targets (Converters)
- Enhanced Extended Producer Responsibility (EPR)
- Mandatory Sustainability Labelling and Documentation
- Restriction of Hazardous Substances





Recycling of PET rigid packaging

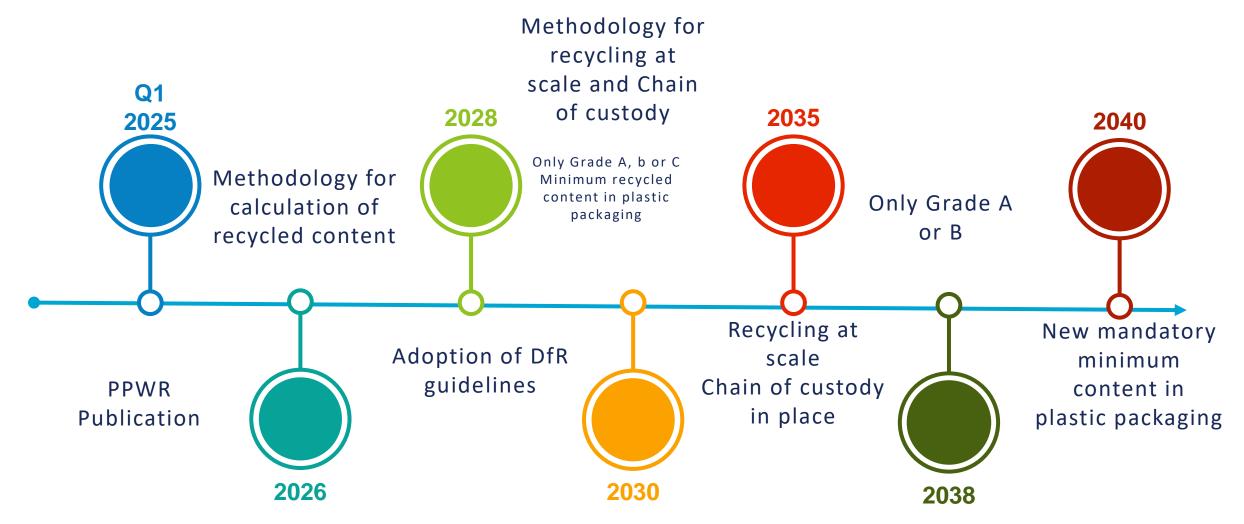
Current state of play

- Facts:
 - 1. PET trays amount up to 25% of volume of PET packaging European market
 - 2. Collection rate EU PET bottle 75%, EU PET tray 25%
 - 3. Several EU countries consider PET Trays as non-recyclable
 - 4. Many on-going projects for tray recycling.
 - 5. Installed recycling capacity (for PET Trays): 150.000 tn/y aprox.
 - 6. Circularity in trays currently achieved, but low volumes.





PPWR TIMELINE







DfR for PET rigid packaging

Recycling state of the art

- Packaging type: Clear and colored PET rigid packaging
- Recycling type: Mechanical recycling
- State-of-the-art outlet: Thermoforms

Main points

- Targeted polymer: PET (secondary stream of polyolefins)
- DfR tables: 3 (Clear monolayer, Clear multilayer, Color)
- Hot topics: Inks, adhesives, lids





DfR for PET rigid packaging

Table design

Table1: Design Guidelines for Clear Monolayer Rigid PET packaging (except bottles)			
	Green / Full compatibility	Yellow / Limited compatibility	Red / Not compatible
	Main body of the pack	aging unit	_
Material composition			
Colours/ pigments			
Additives/ fillers			
Barrier/ barrier coating			
Laminating adhesives			
Sealing adhesives			
Direct printing			
Inks, lacquers, varnishes, coating and ink binders			
	Decorations and C	losures	
Labels and labelling adhesives			
Sleeves			
Closure/openings - rigid			
Closure/openings - flexible			
Seals/valves			
Tamper evidence components			
Inks, lacquers, varnishes, coating and ink binders			
	Other constituents and	components	•
Valves			
Liners			
Other adhesives			
Others			





DfR for PET rigid packaging

Conclusions

- Clock is ticking and we need to achieve:
 - Design for recycling (2030)
 - Recycling at scale (2035)
- Meeting DfR will facilitate:
 - Collection and sorting
 - Recycling (UPCYCLING!!)
- PET Tray recycling is a reality that can be scaled up
- Communication and collaboration is needed



