

Introduction Recycling PET Thermoforms

Workshop September 2017



PET Thermoforms dilemma

- The best example of PCR Plastics recycling at the highest possible level, including food contact.
- PET thermoforms contain almost 50% r-PET
- However..... difficult to recycled to a third life
- There are 1.1 million Tons of PET thermoform packaging's on the European market per year
 - 40% of the 1 Million Tons of Thermoforms are mono-material PET,
 - 30% is PET/PE sealable and
 - 30% is high barrier multilayer PET

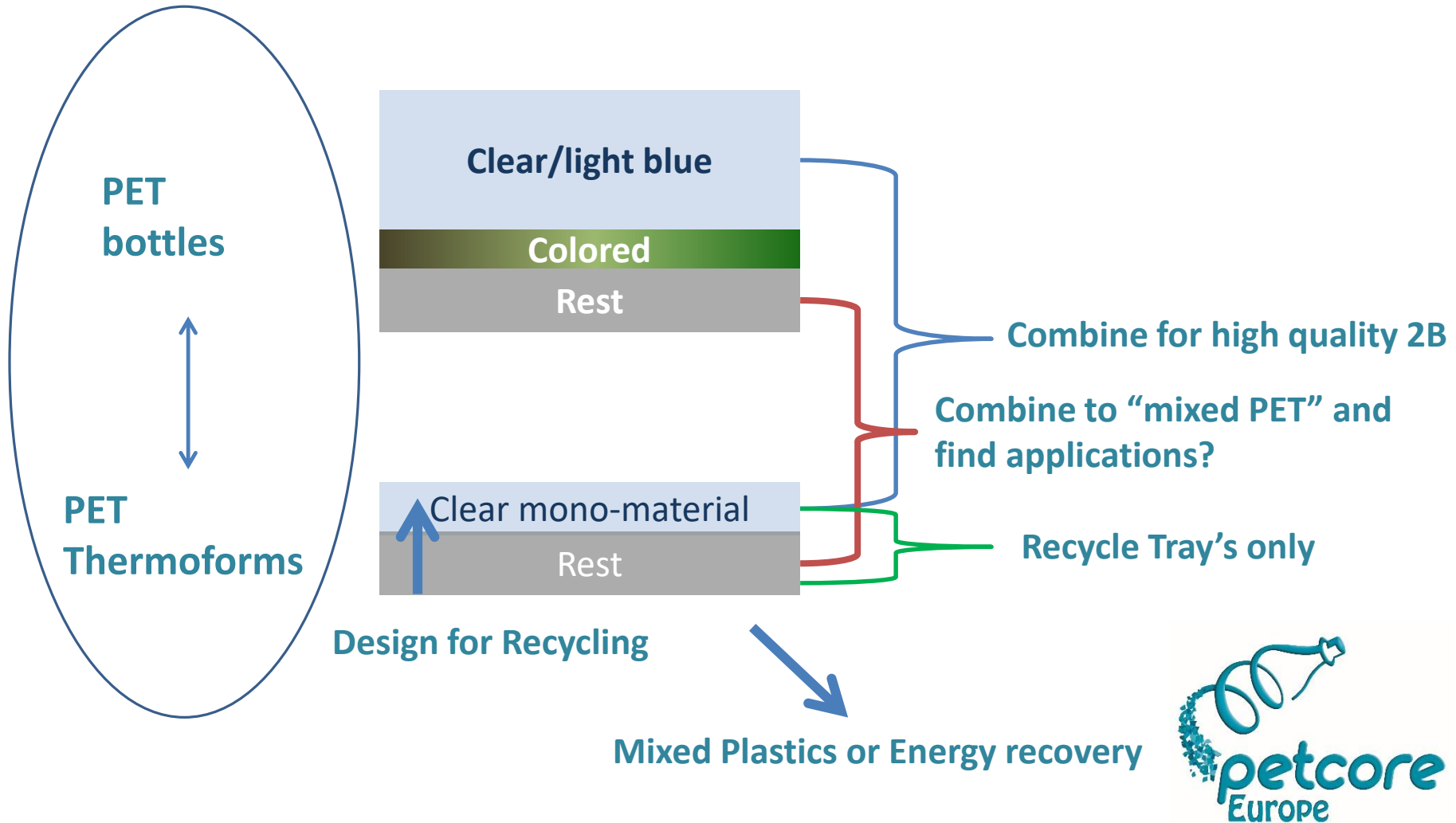


Market PET Thermoforms by Application

1. Monolayer rigid trays, virgin and r-PET, no sealed lid
2. Mono-material rigid trays with a sealed lid
 - Extruded seal layer, can be higher modified PET or PETG
 - Polyester based dispersion coating
3. PET/PE rigid trays (PE layer 35 -40 u)
 - Lid Biax PET with PE layer
 - Lid sometimes in combination with barrier resin
4. Semi flexible trays via FFS with many different layers
5. Blister
 - Mono-material PET
 - PETG



Looking at the Total PET recycling stream



PET Thermoform Project has the objective to improve/stimulate the recycling of PET Thermoforms and has 3 main focus area's (Task Forces)

- TF1 Design for Recycling (P. Glerean)
- TF2 Improvements in the area of collection, sorting and recycling
- TF3 Finding Applications for recycled PET Thermoforms (Mark Ruesink and Wim Hoenderdaal)



Motivation and Involvement of the Industry and Organizations

- Brand-owners
- Retailers
- Packers
- Thermo-formers
- Film and Sheet producers
- PET resin producers
- Recyclers
- Technology providers
- Collection agencies and organizations



Finally...

- PET is a simple polymer with very few variations, this helps recycling.
- The damage caused by processing and the use can be repaired.
- PET has a high reputation for its recyclability as a Polymer, in bottles we reach over 70% collection.
- PET thermoforms are already the second life of PET.
- We have set high standards for PET bottle recycling (transparency / color).
- We aim to improve recycling of PET thermoforms



Thank you

