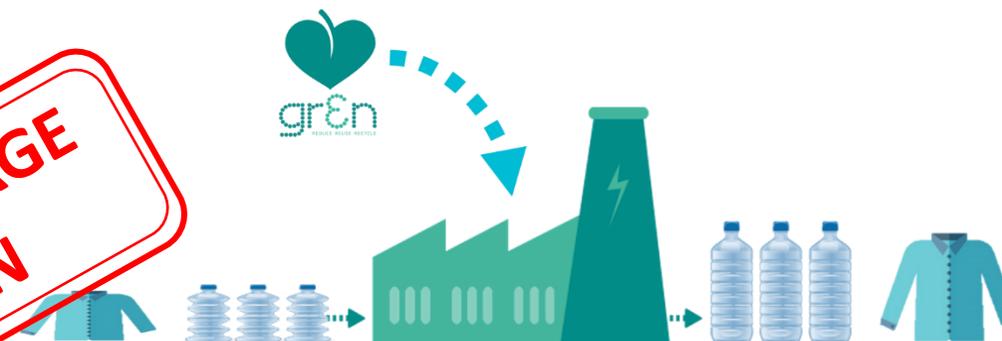




EC HORIZON2020
Project Co-Funded by the European Commission
Grant agreement: 768573
Call identifier: H2020 – SPIRE-09-2017
Project Start Date: 1st of September 2017

**LIGHT PACKAGE
VERSION**



dem&to

Modular, scalable and high-performance
DE-polymerization by MicrowavE TechnolOgy

A business model for successful commercial deployment

Matteo Vittorio Bertelé
CFO @ gr3n sagl
matteo.bertele@gr3n-recycling.com



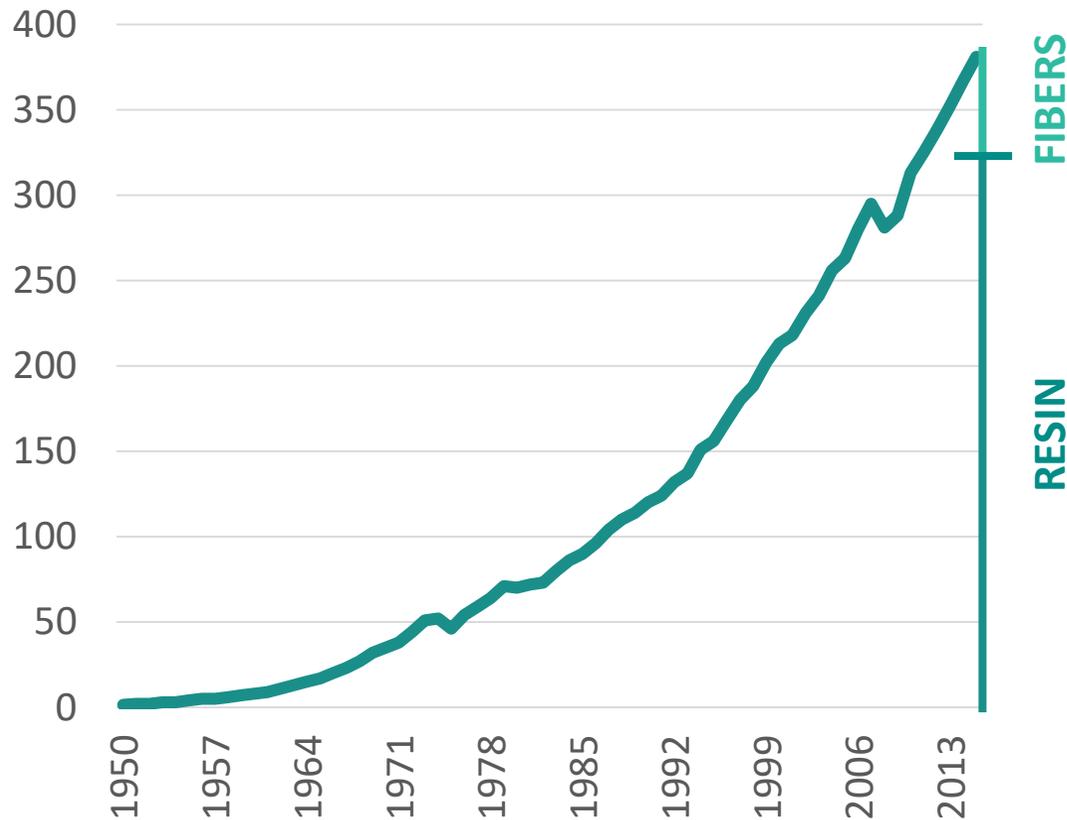
The Market





Global Plastic Production: growth >250x in 65yrs

Global Primary Production (Mt)
Resin and Fibers (no additives)

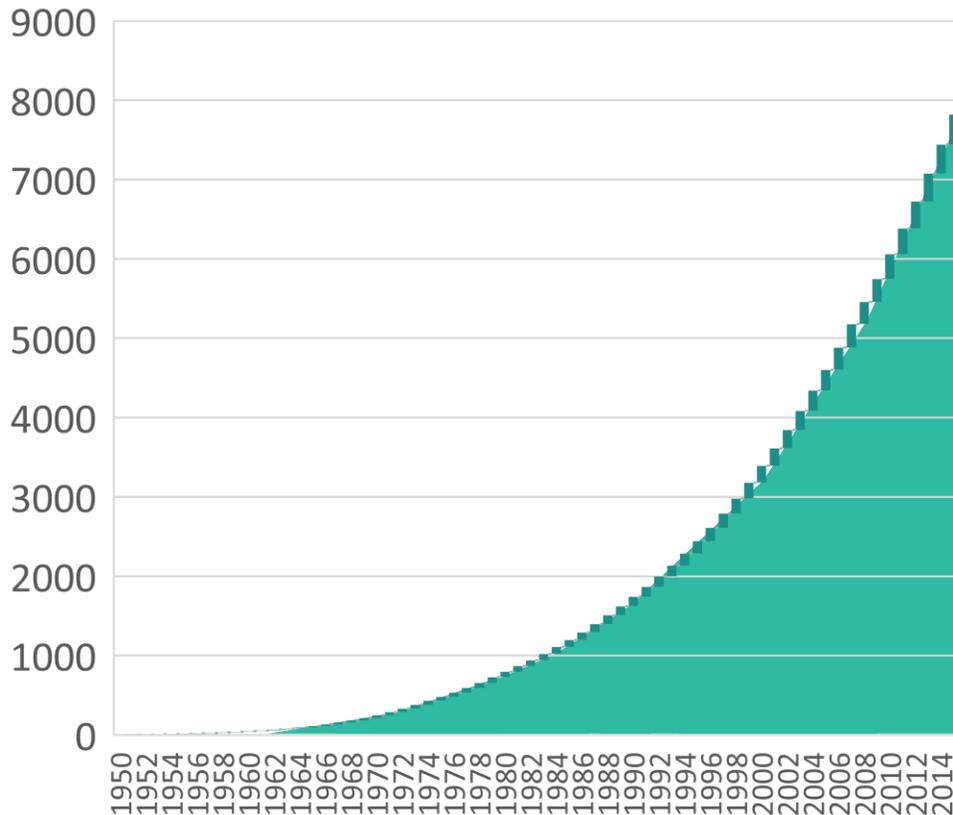


- **1950** plastic is introduced in mass market
- From **1.5Mt** in **1950** to **381Mt** in **2015** (407Mt with add)
- **8% CAGR**: no other man-made material
- **322Mt Resins** in 2015
- **59Mt Fiber** in 2015
- **4-6%** of **Oil** consumption

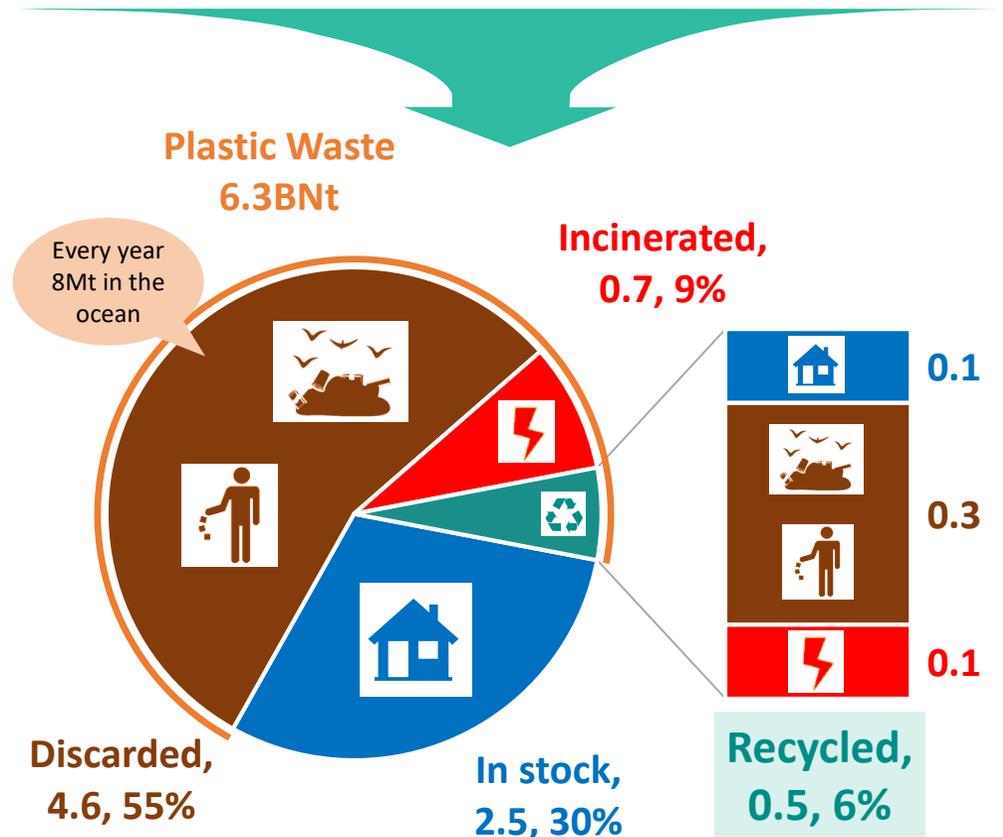


Global Plastic Waste: recycling delays, rather than avoids, final disposal

Global Primary Production (Mt)
Cumulated



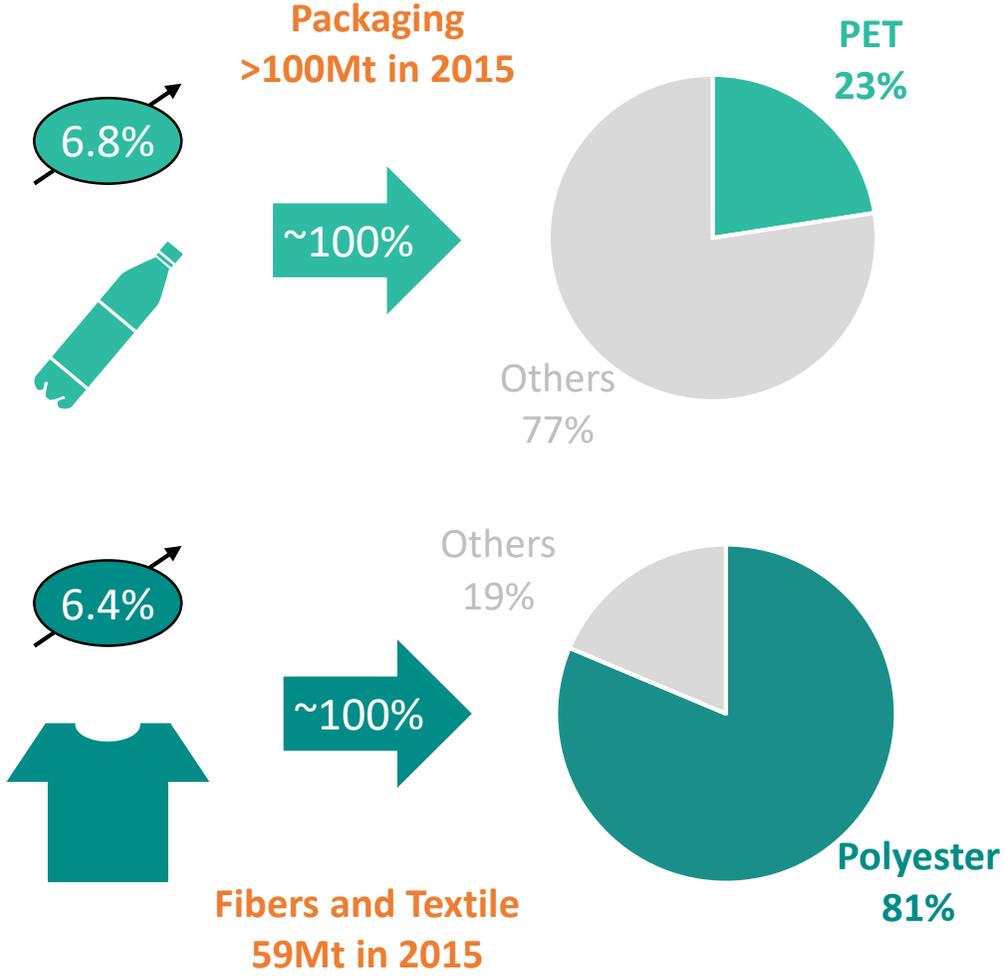
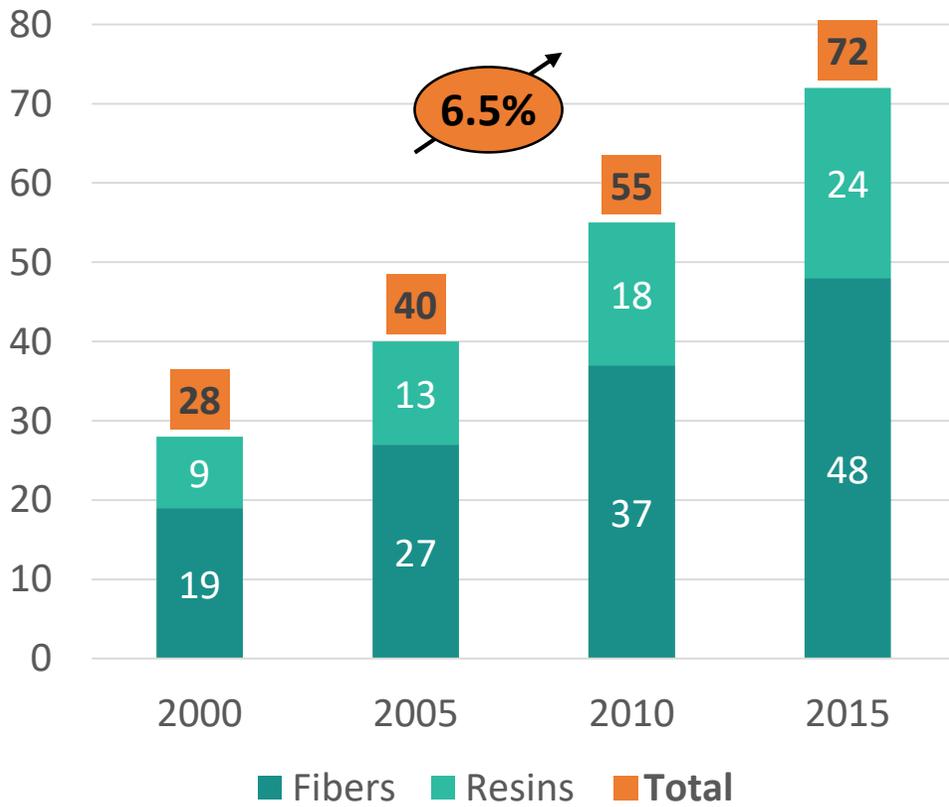
• **8.3Bnt** produced (incl. 500Mt additives)



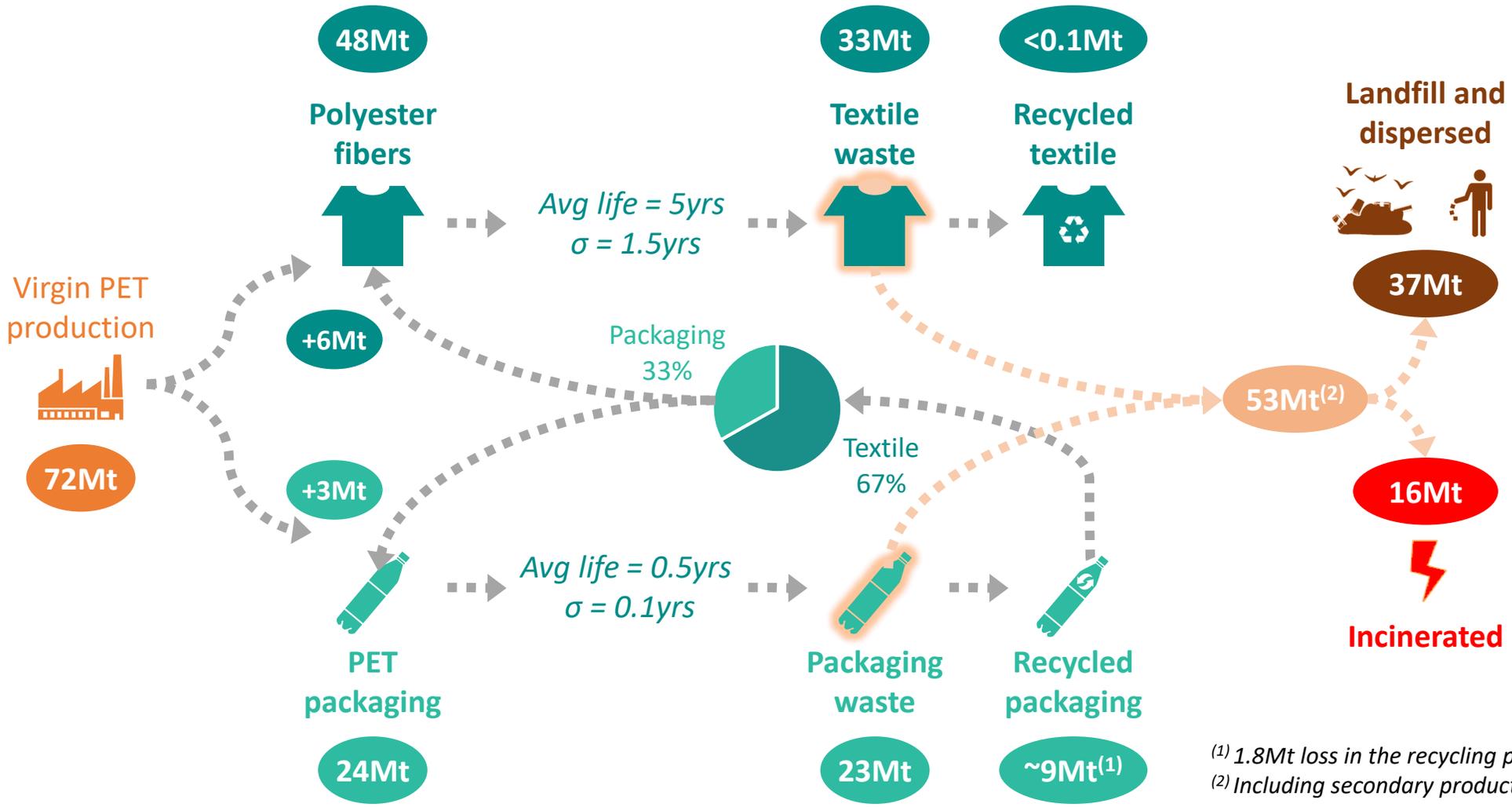


Global PET/Polyester Production: outpaced plastic growth in the last 15yrs (4%)

PET/Polyester Primary Production (Mt)

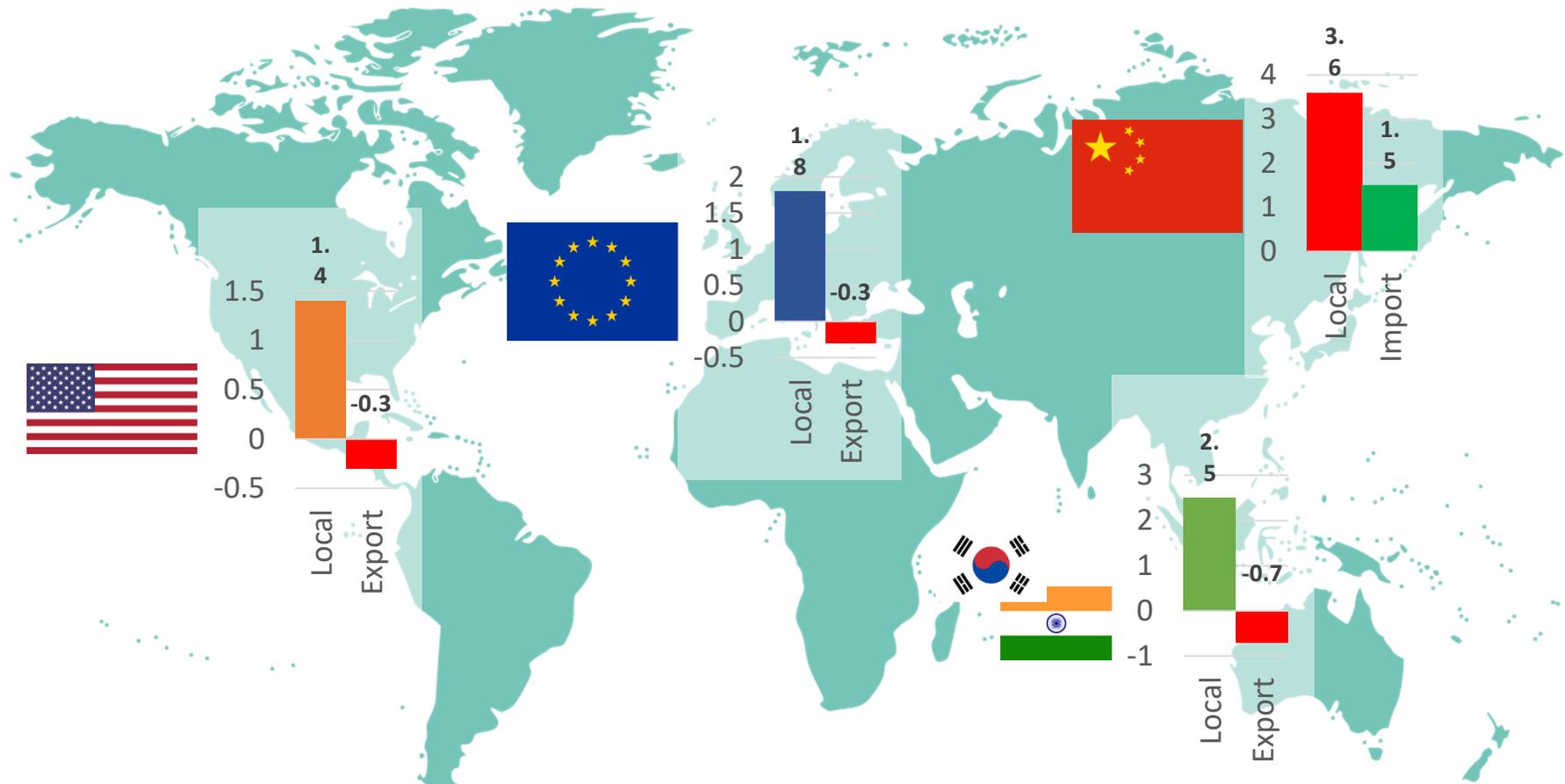


PET/Polyester Value Chain Figures: 53Mt of waste in 2015: recycling rate 12.5%



(1) 1.8Mt loss in the recycling process
(2) Including secondary production

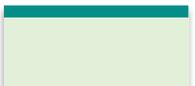
PET/Polyester Waste Import/Export: are you ready to keep waste in Europe?



China is the sole net importer of PET waste, but will prohibit import from 2018



The Value Chain





The Business Case



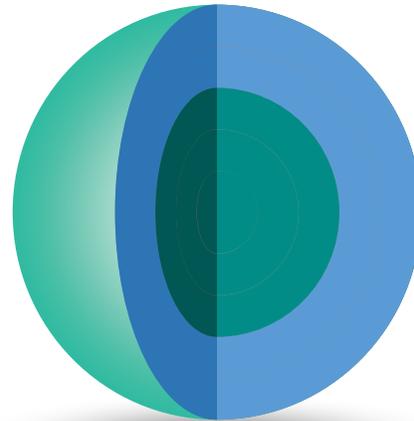


Post DEMETO Business Model synergistic between EPC and gr3n



EPC Services

Maintenance of the plant



Reactive Units



Maintenance on reactor



Licensing of the process



PET producer



Mechanical recycler



Municipalities



DEMETO Additional Competitive Advantage real potential from unwanted waste



PET trays



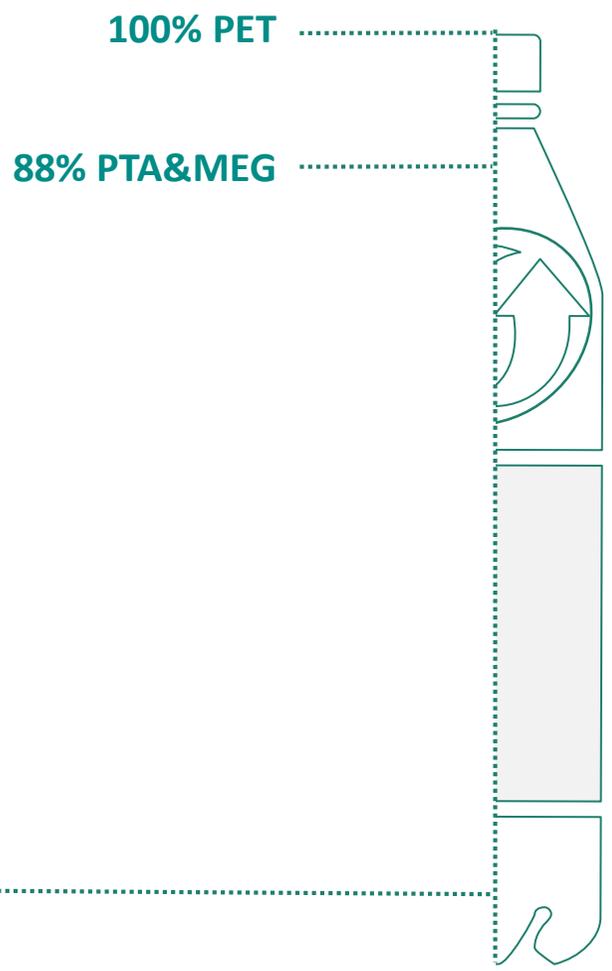
Opaque and Difficult to Recycle PET Packaging



Mechanical recycling scraps (PET powder)



Polyester textile



>70%





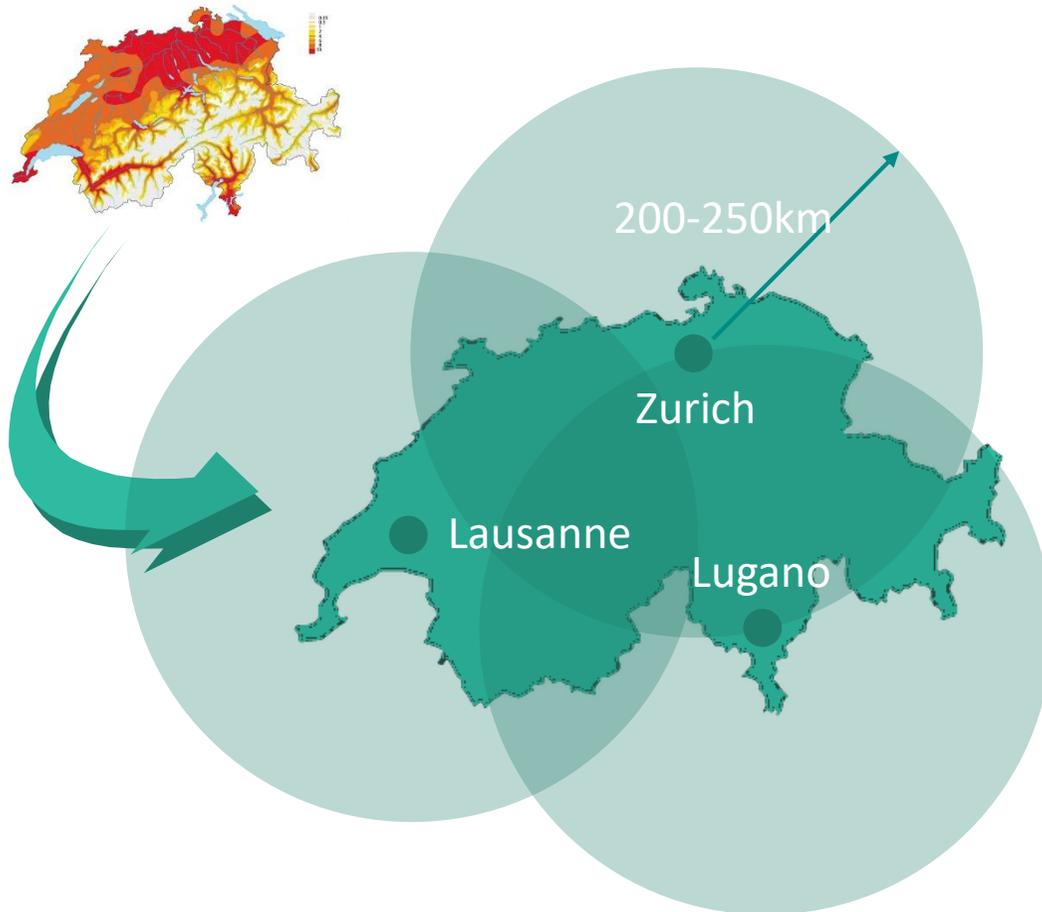
The Deployment Strategy





DEMETO Deployment Strategy

One plant every urban conglomerate



38,661t of post consumer PET bottles collected in 2015 (83%, or 4.6kg per inhabitant)



3 DEM3TO plants (ideal size = 15kt/yr)



Waste collecting distance = **200-250km:**

PET baled bottles weight = **200-350Kg/m³** (up to 450-500Kg/m³)



Long distance → **PET compound = 1,400kg/m³:**

PTA = **1,520Kg/m³**

MEG = **1,110Kg/m³**

Make Europe self-sufficient and improve logistics >5x



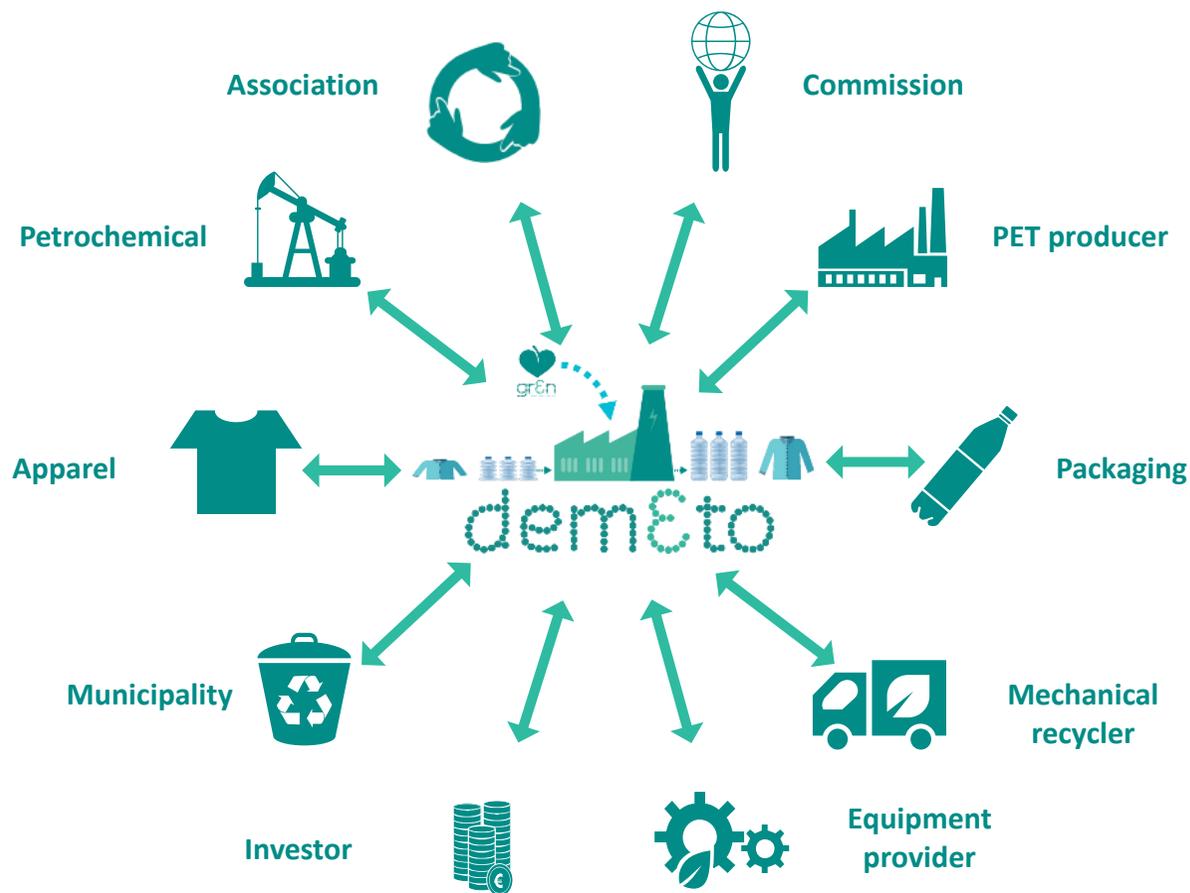
What's next? 





Open Points and IAB role

Partnership with stakeholders



Scope: Involving external stakeholders in a 2-way communication to validate economical assumptions and technical decisions

We ask for: Provide feedbacks and ideas of reflection to steer the business development activities and focus our technical efforts

We give: Receive timely updates of the project and privileged information on the technology and on its business development

Commitment:

- Yearly “closed doors” dissemination event
- Update conference call every 6 months
- Spot requests for information by **DEM3TO** partners



Q&A session ?

Thanks for your attention!

Matteo Vittorio Bertelé
CFO @ gr3n sagl
matteo.bertele@gr3n-recycling.com

