

SOLUTIONS TO PLASTIC WASTE BY



400 MLN TONNES

of plastic waste produced
in the world yearly

10%

the amount of plastic
waste currently recycled

>50%

can be targeted by Saipem's
Plastic Recycling Solutions

Saipem's Solutions aims to reduce the environmental footprint of plastic waste through chemical recycling, in a low-carbon circular economy perspective.

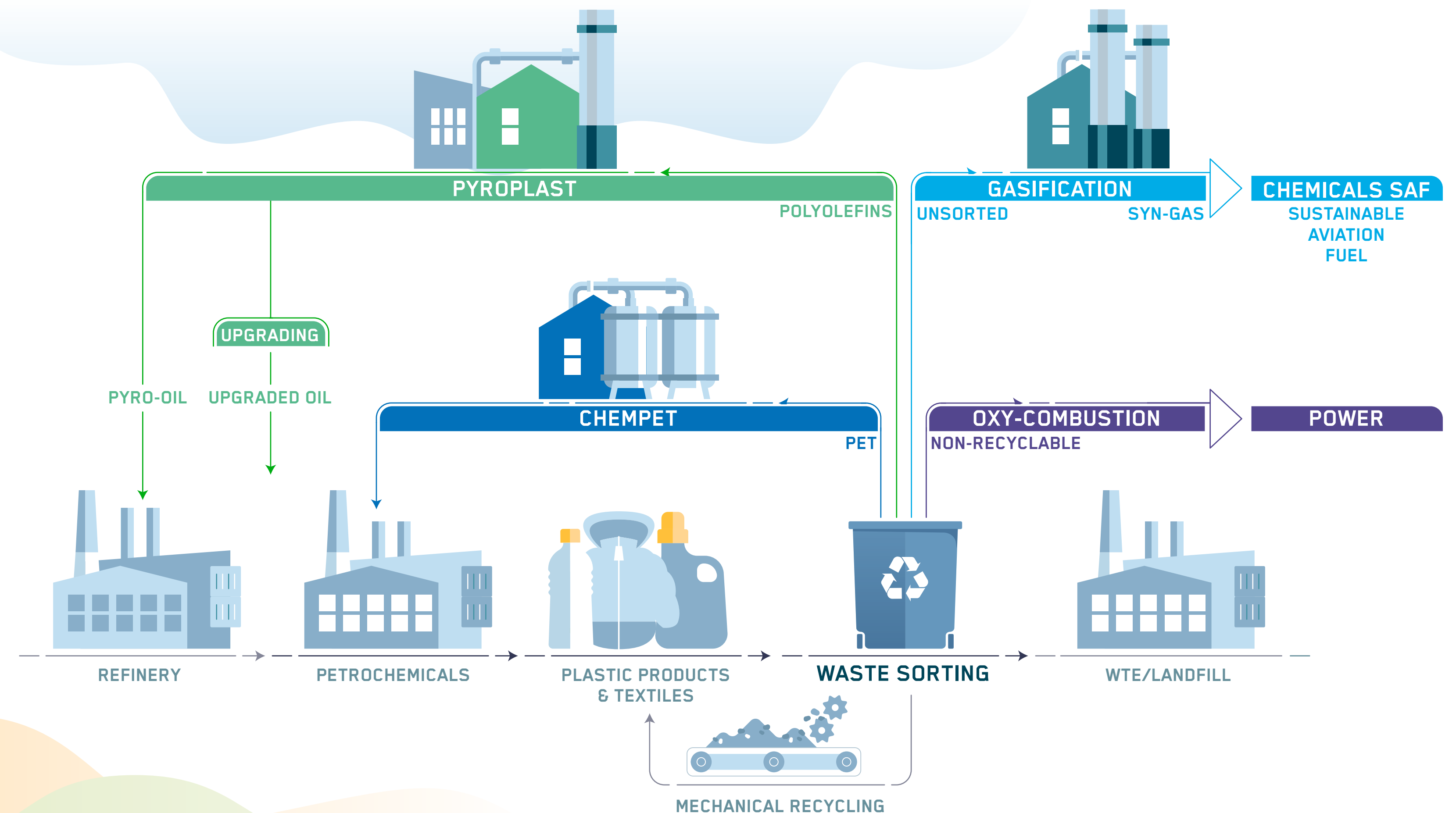
Each solution targets specific plastic waste fractions, complementing mechanical recycling and is designed with an industry-wide replicable approach.

OPTIMIZED TIME-TO-MARKET

MINIMUM CAPEX

INTEGRATED WITH SAIPEM
LOW CARBON SOLUTIONS
(CCUS AND GREEN H₂)

LEVERAGING 60+ YEARS
EXPERIENCE IN O&G
PROJECT EXECUTION



FOR POLYOLEFINS CHEMICAL RECYCLING

The infographic displays three types of plastic recycling symbols and their associated items:

- HDPE (High-Density Polyethylene):** Represented by a recycling symbol with the number 2. Examples shown include a blue plastic bottle and a blue plastic basket.
- LDPE (Low-Density Polyethylene):** Represented by a recycling symbol with the number 4. Examples shown include a yellow plastic bottle and a white plastic bottle.
- PP (Polypropylene):** Represented by a recycling symbol with the number 5. Examples shown include two grey plastic storage bins.

Optimized engineering
and execution schedule

Supply chain ready

Turnkey solution
ready for use



ChemPET

FOR PET DEPOLYMERIZATION

To break down PET plastic waste, Saipem has developed ChemPET, its solution for chemical recycling **based on Garbo's glycolysis technology**. ChemPET can valorize PET-based waste that is not mechanically recyclable and that today is incinerated or landfilled. **PET is converted back into its starting building block**, the monomer BHET, which is then purified and reprocessed into new PET.

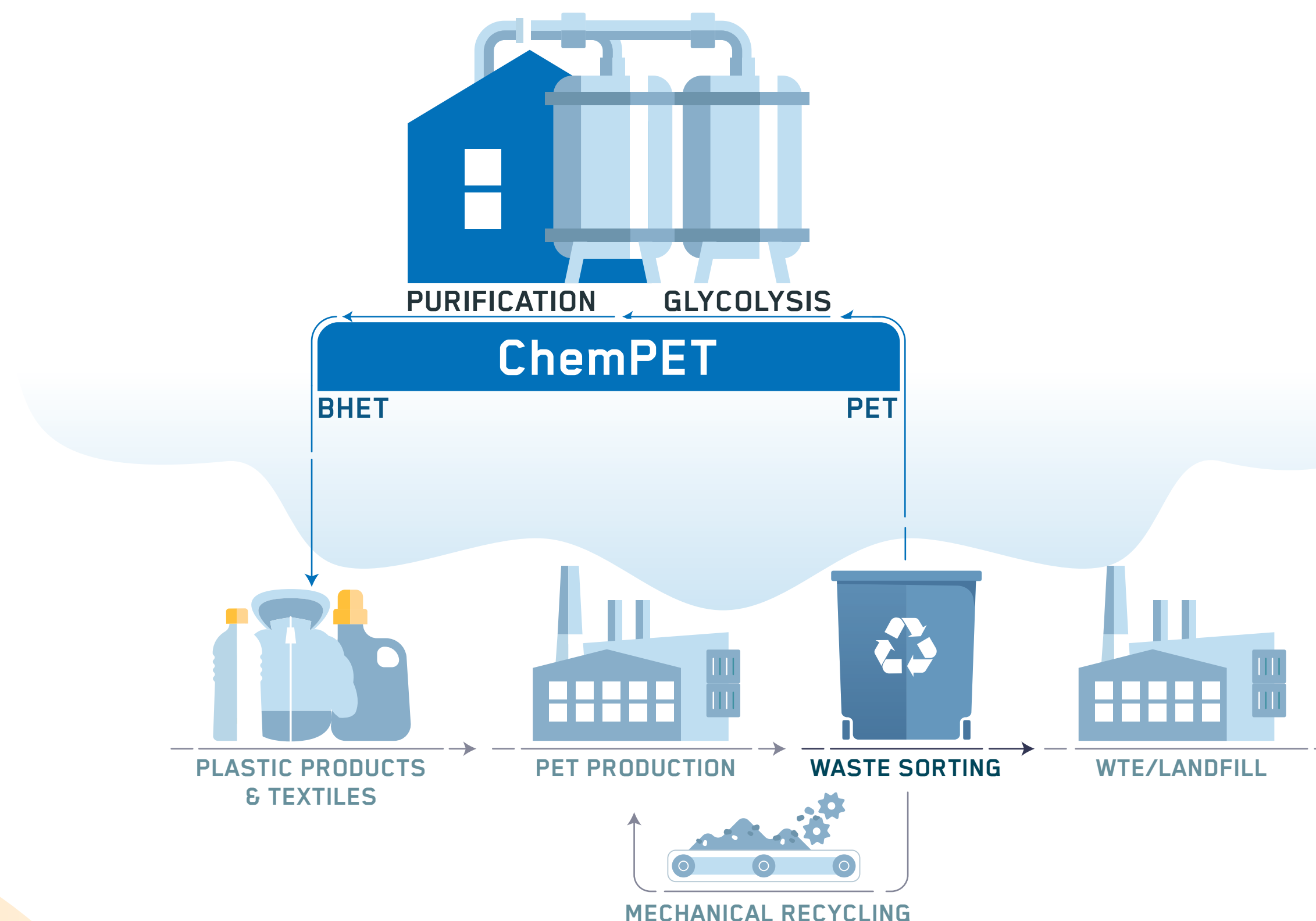


SAFE AND SIMPLE PROCESS

- Mild operating conditions
- No runaway reactions
- Limited extent of hazardous classified areas
- Low gas/liquid inventories
- No harmful emissions, no hazardous solvents

INDUSTRIALIZED PRODUCT

- Optimized engineering and execution schedule
- Supply chain ready
- Available for third party licensing



HIGH EFFICIENCY FOR MAXIMIZED YIELD

- Packaging and textile feedstock enabled
- High BHET quality, for virgin like PET production
- Minimize losses of BHET and MEG
- Complements mechanical recycling boosting circular economy
- Maximum material recovery

ROBUST TECHNOLOGY

- Continuous pilot plant operations
- Extensive test campaigns
- Several tons of BHET produced
- Available for clients feedstock testing

