SOLUTIONS TO PLASTIC WASTE BY SAIPEM

400 MLN TONNES
of plastic waste produced in the world yearly

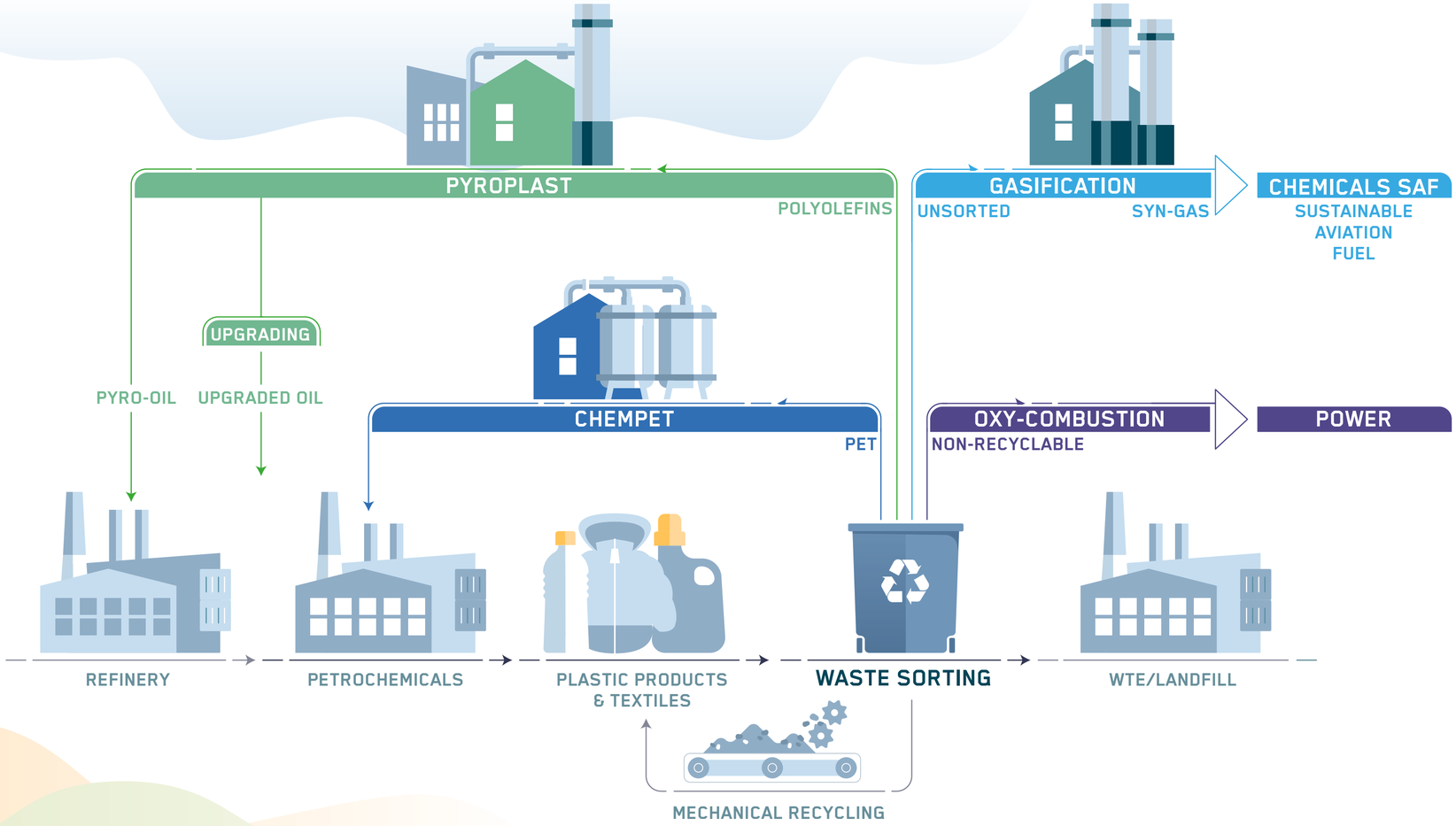
10%
the amount of plastic waste currently recycled

>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 H_2)
- LEVERAGING 60+ YEARS EXPERIENCE IN O&G PROJECT EXECUTION



PYROPLAST

FOR POLYOLEFINS CHEMICAL RECYCLING

To break down polyolefin plastic waste, Saipem has developed Pyroplast, its solution for chemical recycling through the **pyrolysis of polyolefins**. Pyroplast **converts solid plastic waste into liquid or gaseous products** to be reused as chemical feedstock for recycled plastic production.

SUSTAINABLE

Low carbon footprint

Implement a circular economy model

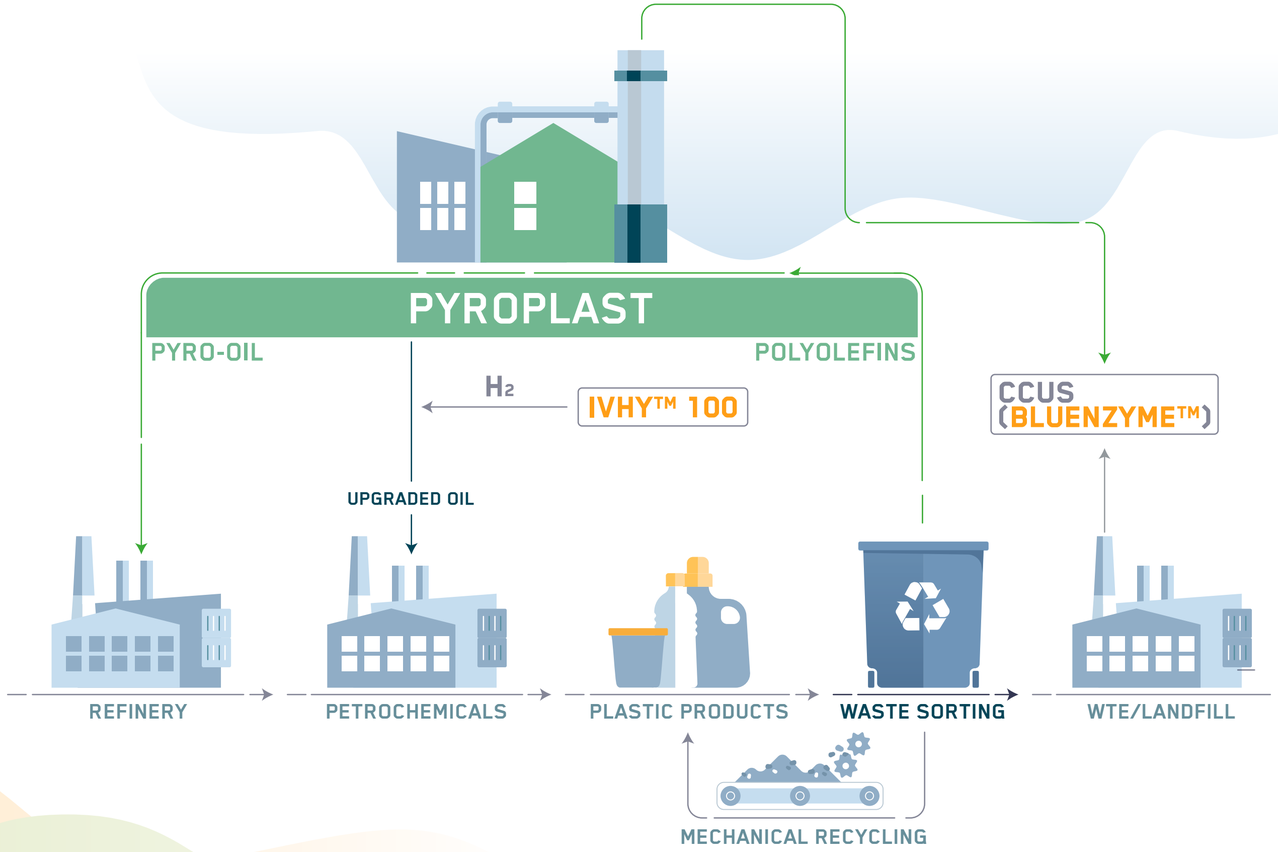
Integrated with Saipem Low carbon solutions (CO_2 Capture and Green H_2)

OPTIMIZED EFFICIENCY

Continuous process operations and high availability

Low energy consumptions

Optimized sorting section



INDUSTRIALIZED PRODUCT

Modular and scalable

Third party technology validated by Saipem

Optimized OPEX and CAPEX

SHORT TIME-TO-MARKET

Optimized engineering and execution schedule

Supply chain ready

Turnkey solution ready for use

SAIPEM

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 hydrocarbons inventories

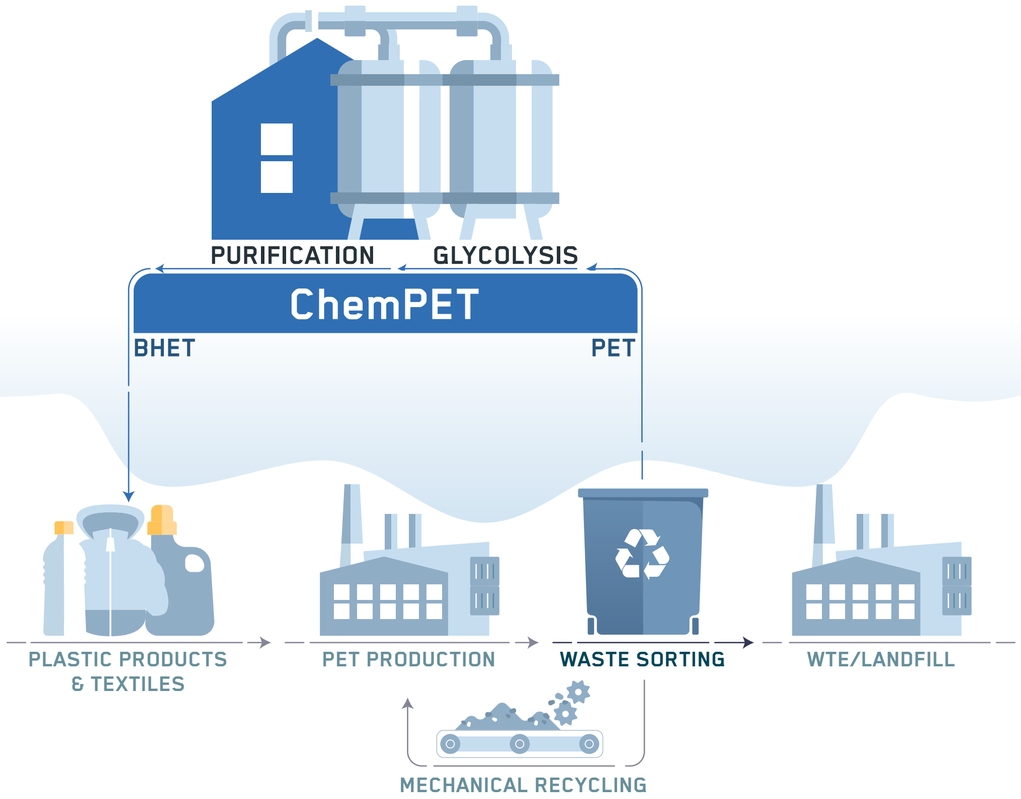
No harmful emissions, no hazardous solvents

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

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