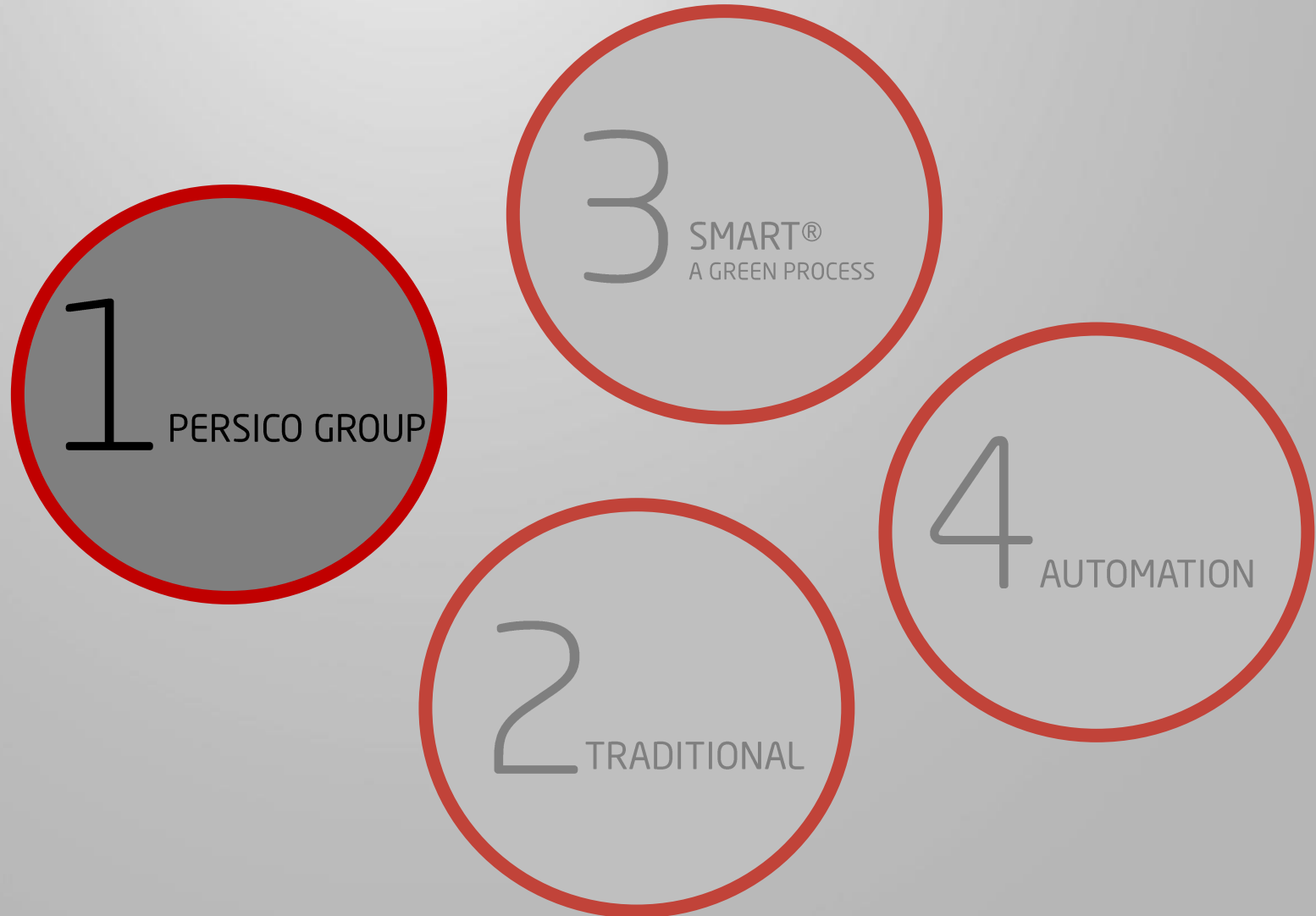




06-07 June 2024  
ROTOPOL\_Prague

## Shaping the Future of Rotomoulding in a Net Zero World



# GLOBAL FOOTPRINT

Production ●  
Sales office ●  
Service ○



Since **1976**  
Family Company

**Nembro (BG), Italy**  
Headquarter

**850**  
Persico Group's employees

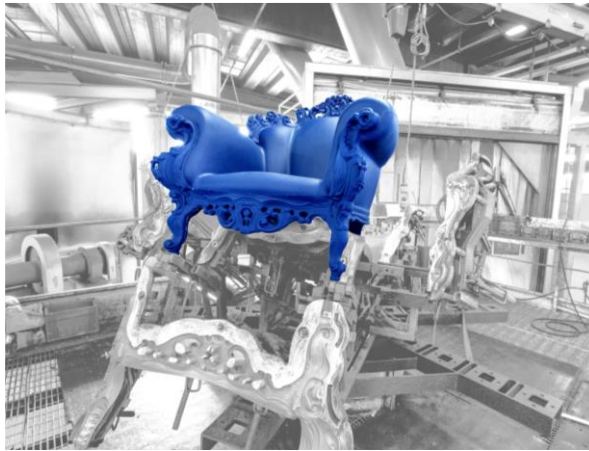
**231,000,000.00 €**  
Persico Group's turnover  
Year 2023

**71,500 sqm**  
Persico Group's buildings  
worldwide



Persico provides a **complete range of services:**  
from concept to design, engineering and manufacturing of  
tools, presses, robotic cells, equipment, lines & turnkey solutions for the production of:

Hollow plastic parts  
Rotational Technology



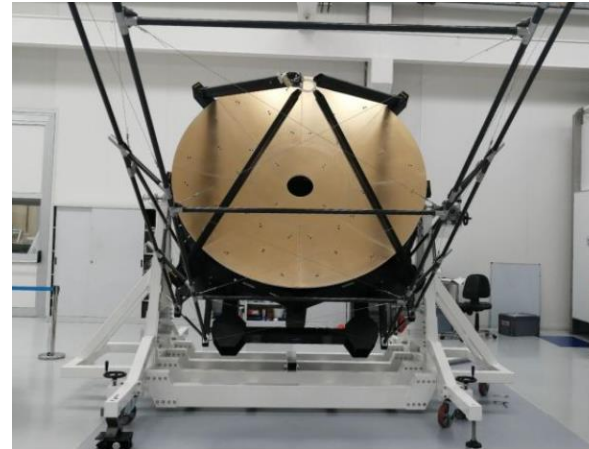
Interior & exterior vehicle parts  
Automotive



Sail boats, Catamaran & Yachts  
Marine



Reflectors, Telescopes  
Aerospace



# COMPANY POLICY



- Labor & Human Rights
- Green sustainability
- Renewable energies



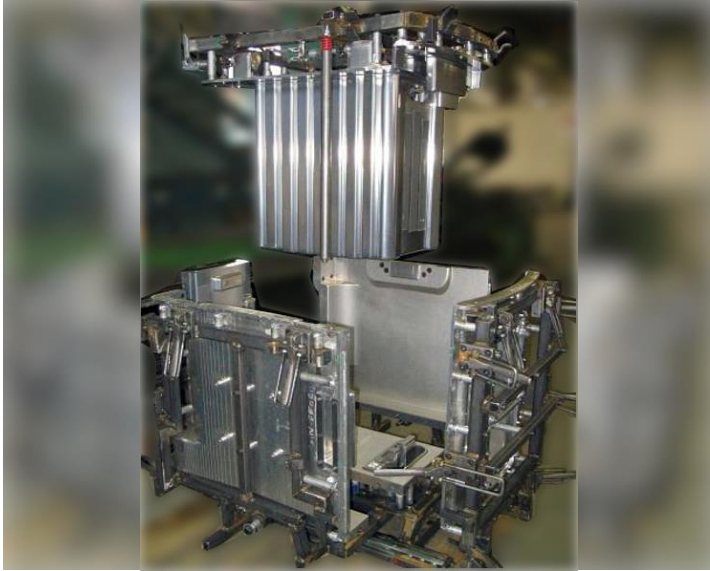


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## Shaping the Future of Rotomoulding in a Net Zero World



# PERSICO ROTOMOULDING TECHNOLOGY



## TRADITIONAL ROTOMOULDING TOOLS

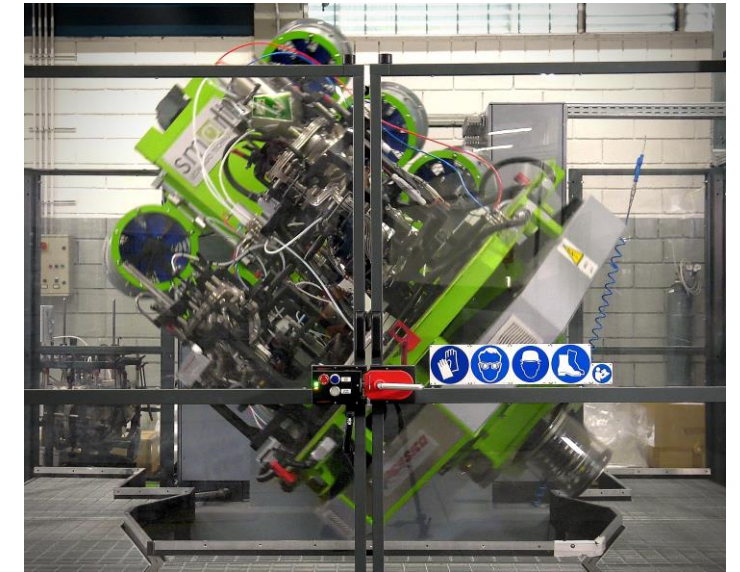
- Cast tools
- CNC tools
- Special finishes:

Cast wood effect; Machined weave effect; CNC fine detail; Laser etched tool; Mirror finish; Textures



## DTH - ELECTRICALLY HEATED MOULDS

- Heating elements up to 48 programmable zones
- Temperature control inside & outside
- Vacuum
- Nitrogen
- Pressurization
- Venting and internal cooling
- Multilayer easy management

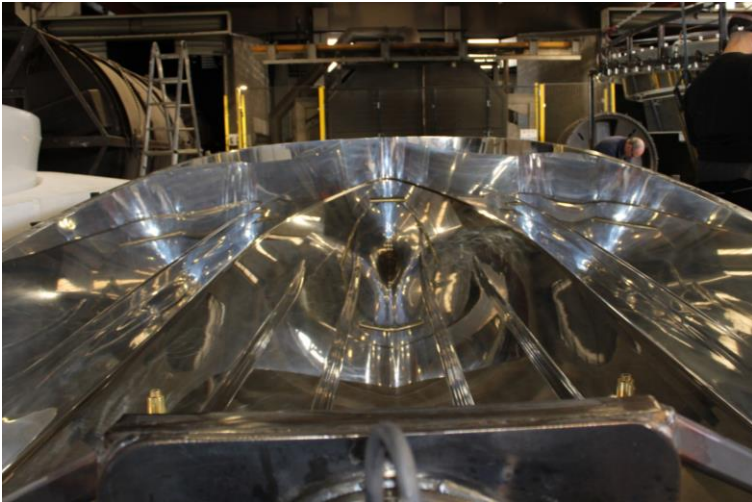
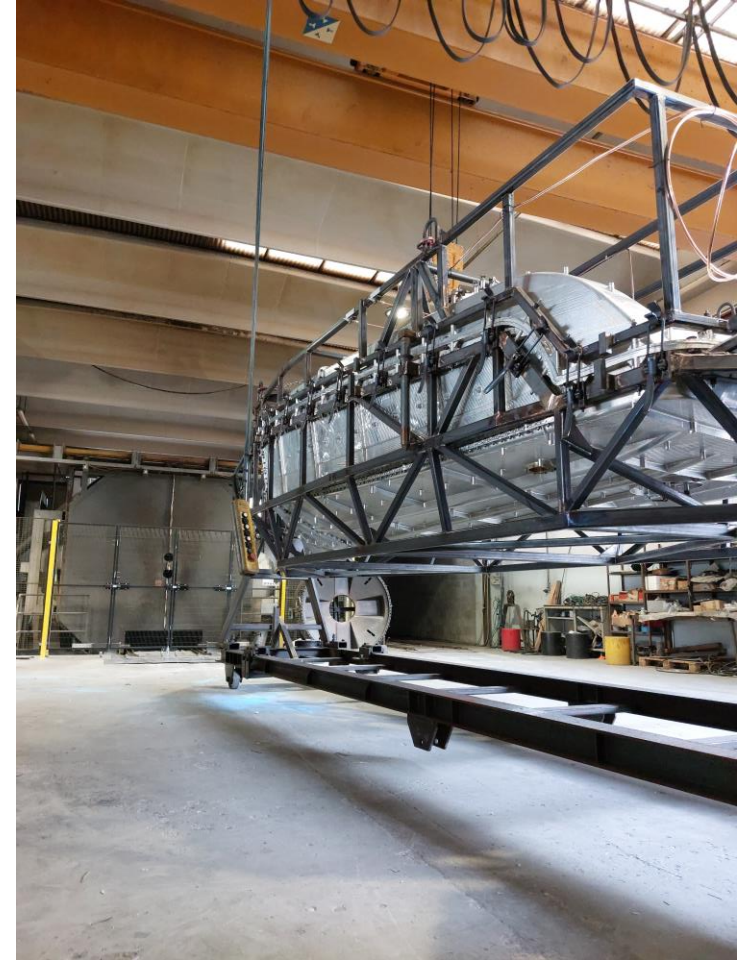
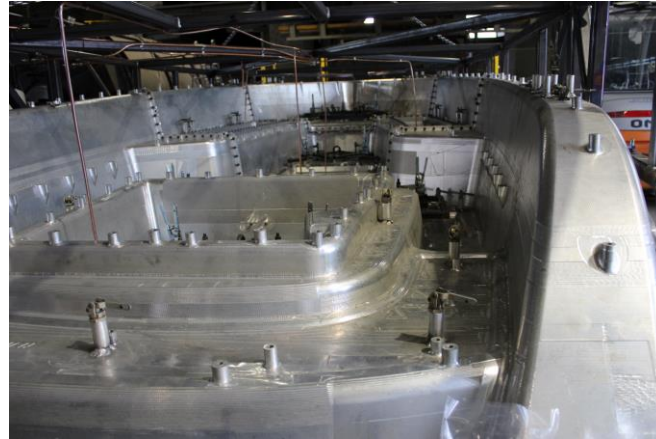


## SMART<sup>®</sup> MACHINE

- Compact moulding cell
- High productivity
- Minimal operator input
- Low energy consumption
- Minimum downtime
- Integrated cooling
- Robot interaction



# HIGH-END BOAT 5,5\*2\*1,2 M WITH ELECTRIC MOTOR





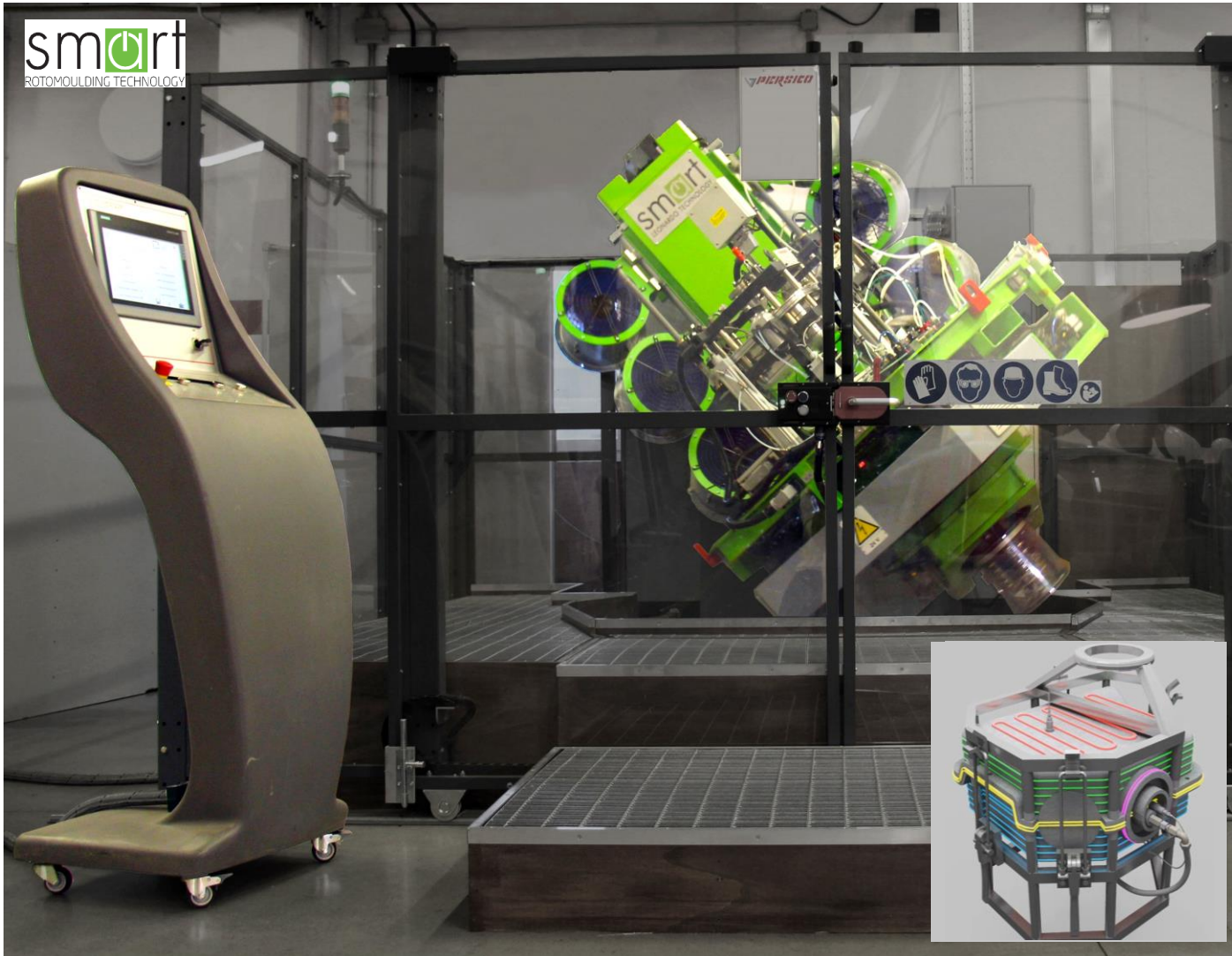
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## Shaping the Future of Rotomoulding in a Net Zero World





# SMART®: A GREEN PROCESS



## **ENERGY SAVINGS**

up to 40% (depending on product geometry, material, energy cost, etc.): heat is supplied only to the mould

## **REDUCED WEIGHT OF THE MOLDED PART AND LESS RAW MATERIAL USED**

up to 20% (depending on product geometry, material, energy cost, etc. ) due to better wall thickness control and so less raw material used

## **SHORTER HEATING CYCLE PROCESS**

Since the mould temperature can be increased rapidly

## **PROCESS REPEATABILITY**

Scrap reduction

## **WIDE RANGE OF PROCESSED MATERIALS**

PA11, PE, XLPE, Polypropylene, Nylon (liquid and powder), Polycarbonate, EVOH, PEEK, Water soluble (PVA or PVOH)

## **AUTOMATION**

Possibility to synchronize human and robot's skill sets

NEW

# WATER-SOLUBLE CORES FOR HYDROGEN TANKS & CARBON HOLLOW PARTS

## Requirement

Creating **hydrogen tanks** without liners inside & **carbon hollow parts**

## Material

PVOH

## Process

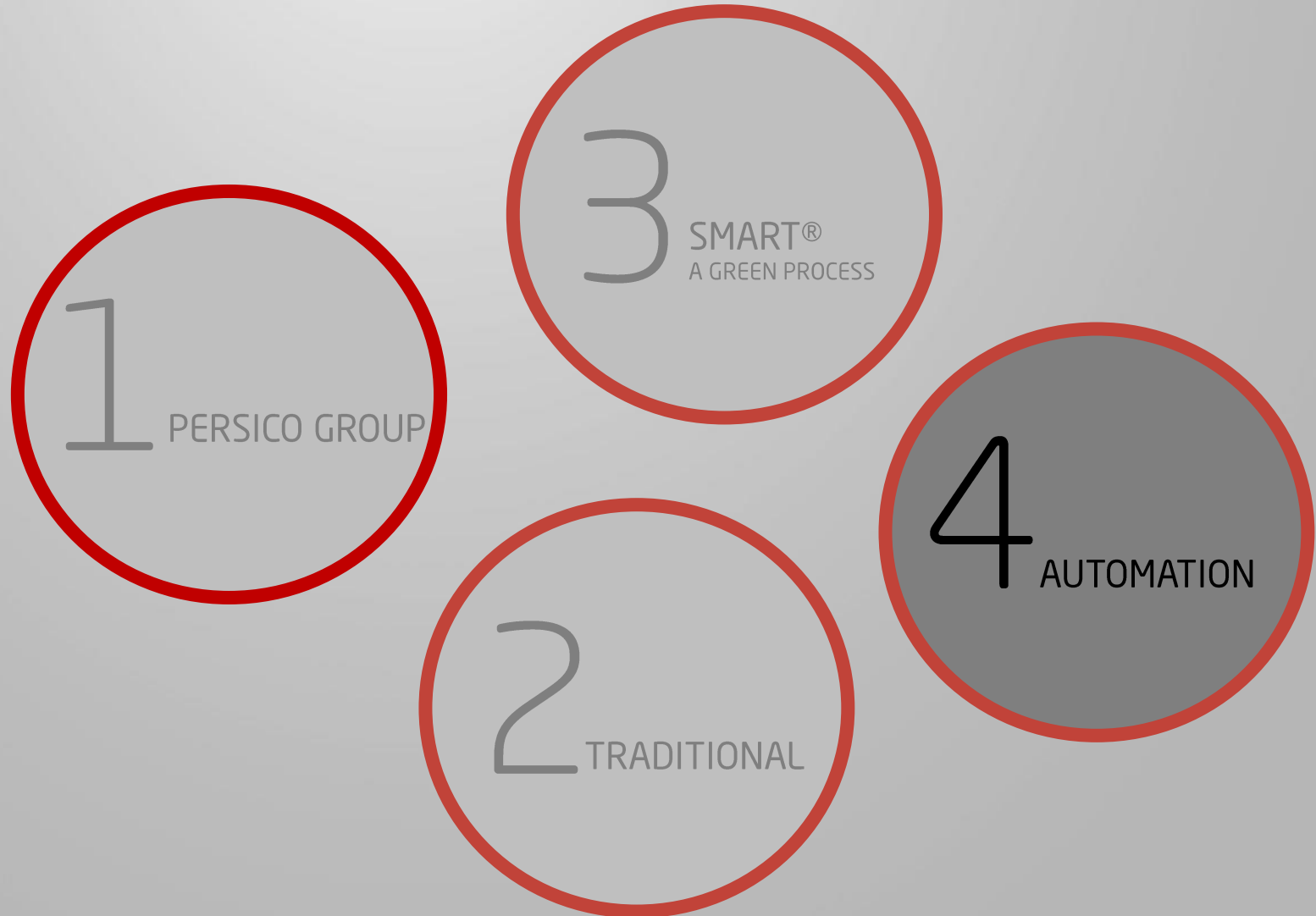
1. Rotational moulding of the core part
2. Carbon fibre plies layup over the core
3. Core + plies are positioned in the composite mould
4. Composite curing (the core can be inflated during this process to compact the composite). Can be autoclave or low-pressure RTM
5. Core wash out with water or hot water (faster)



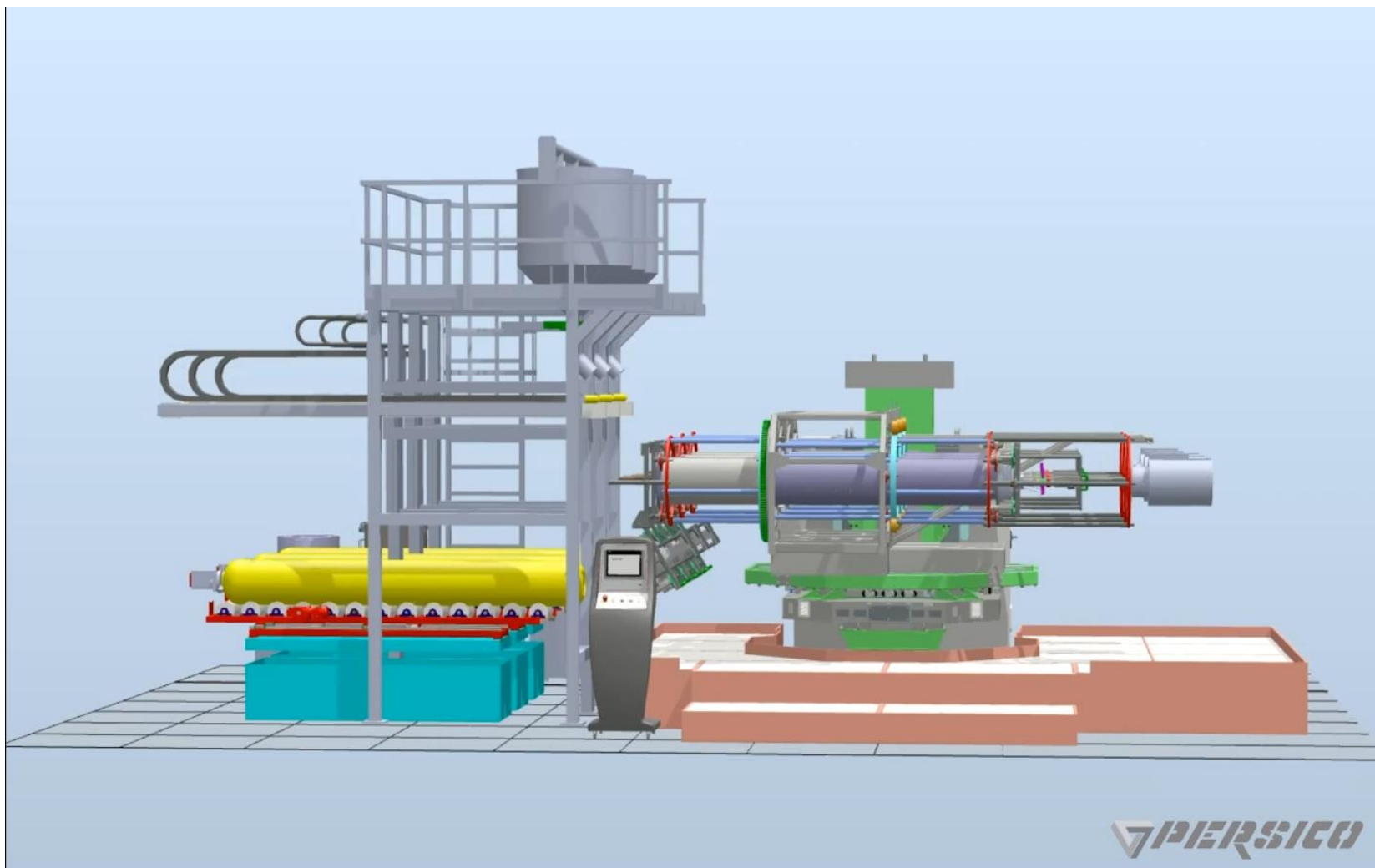


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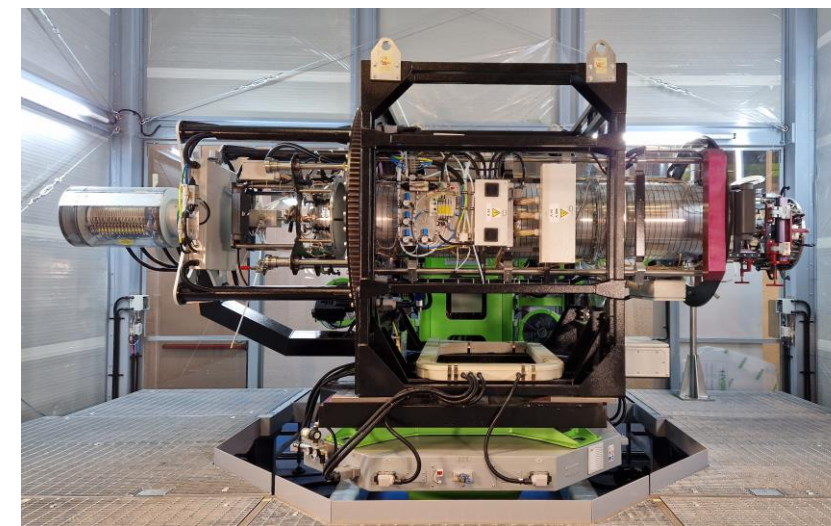
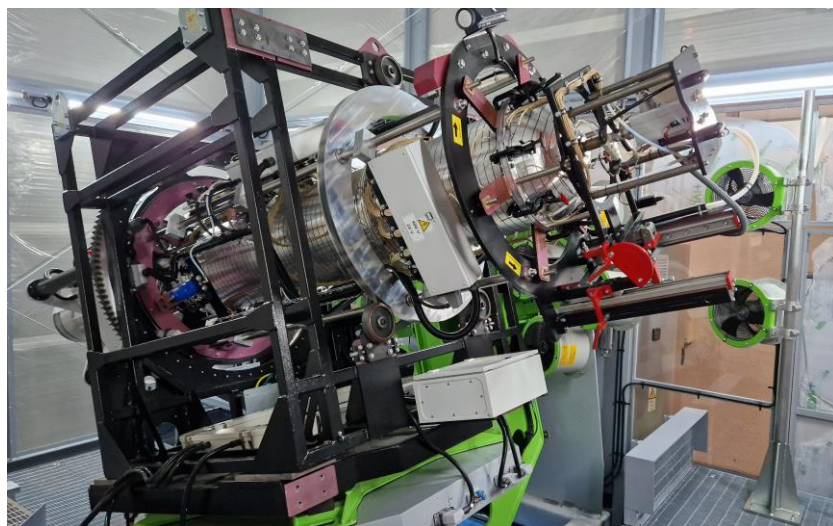
## Shaping the Future of Rotomoulding in a Net Zero World



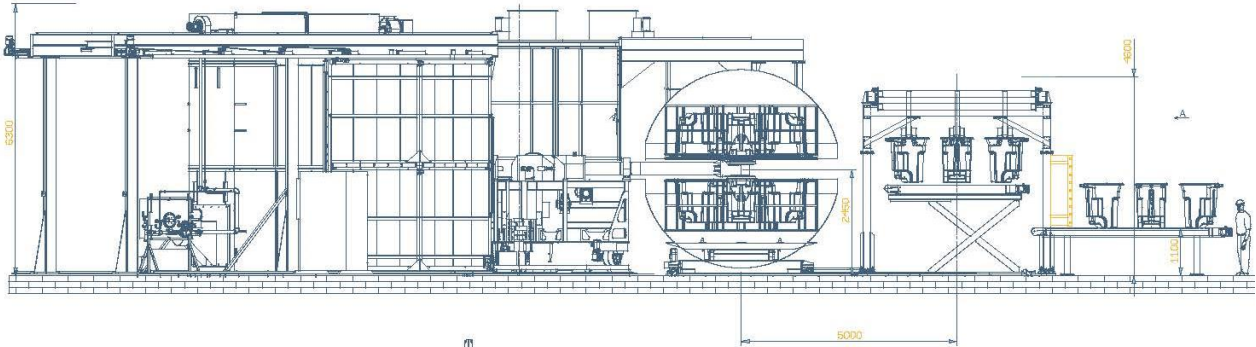
# HYDROGEN & AUTOMATION



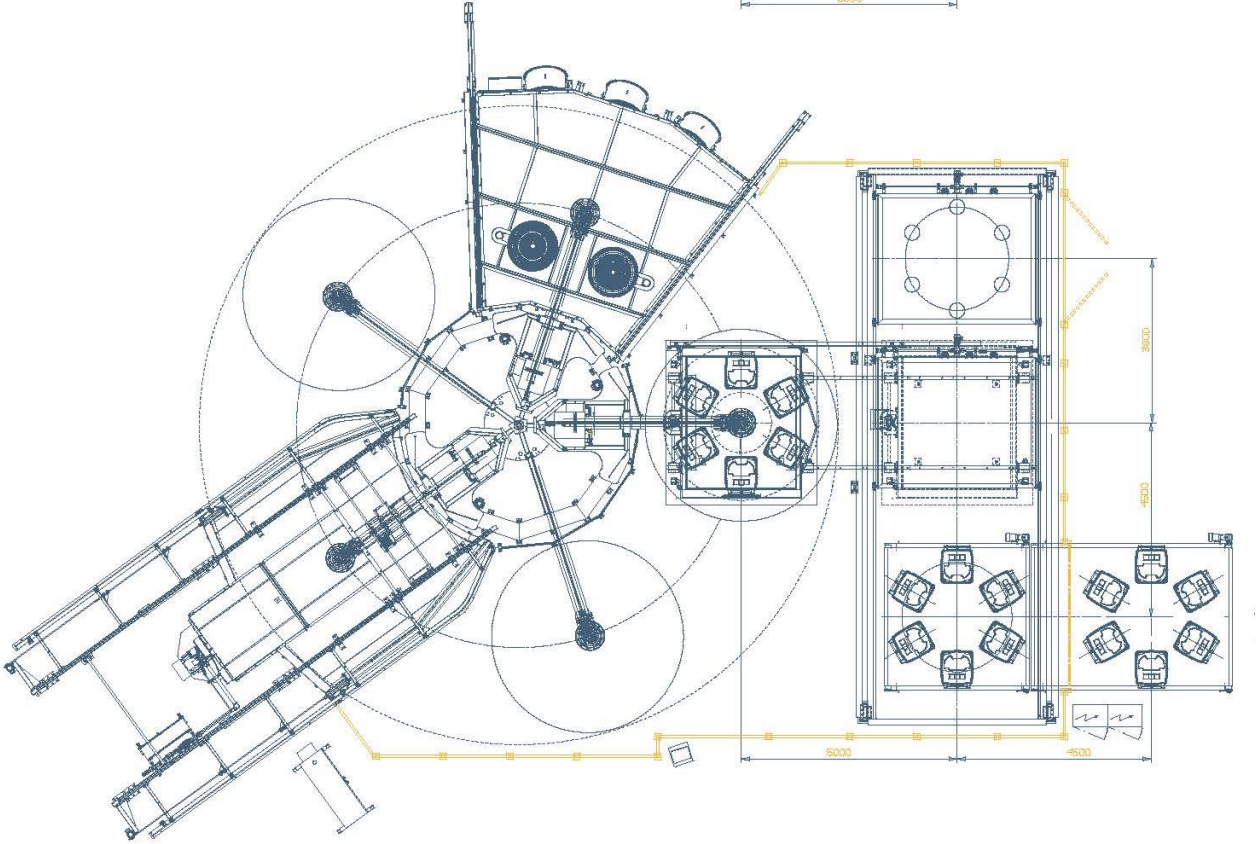
# HYDROGEN & AUTOMATION



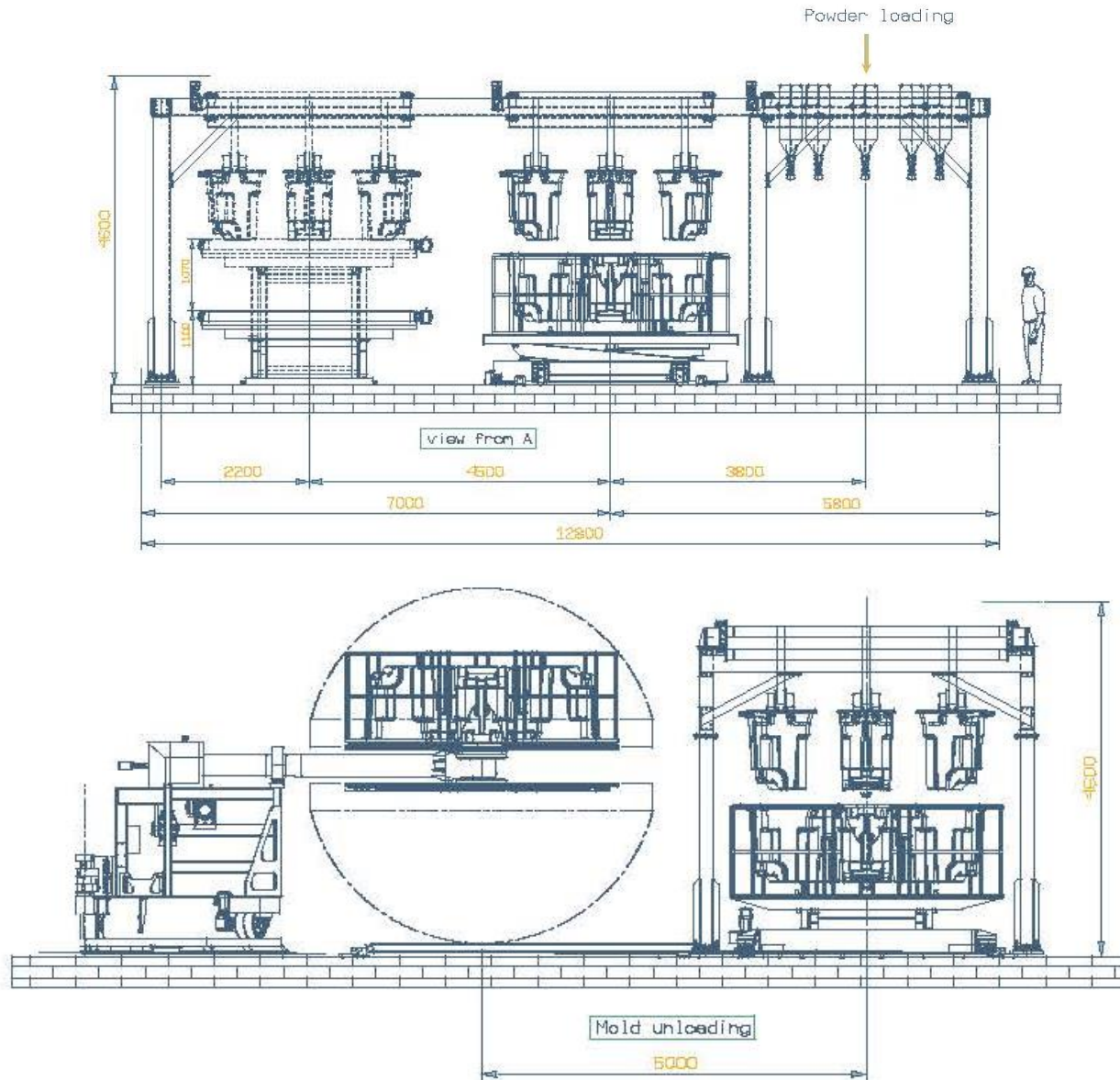
# AUTOMATION & TRADITIONAL PROCESS



Persico is further developing automation systems for conventional rotomoulding machines



# AUTOMATION & TRADITIONAL PROCESS



Persico is further developing automation systems for conventional rotomoulding machines **to speed up:**

- **loading and unloading of spiders on the machine arm**
- **spider/tool opening and closing**
- **powder loading**
- **plastic product releasing**



“The greatest threat to our planet is the belief that someone else will save it.”

Robert Swan,  
Author and Explorer







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