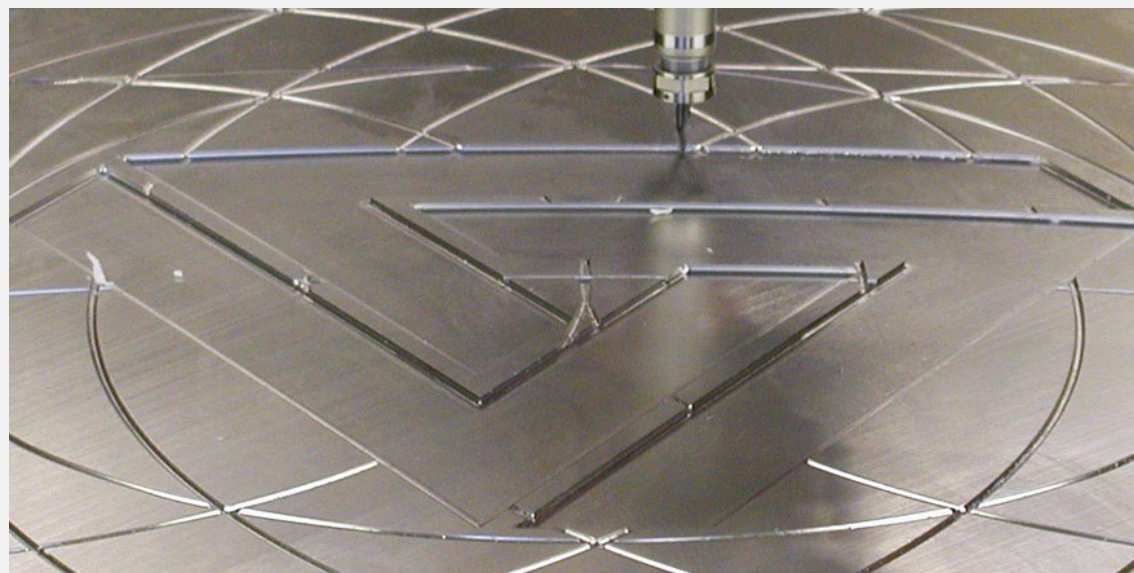


**SMART MOULDING**

The past, the present and the future

ARM Houston 28-30th October 2019



<i>Company:</i>	Persico SpA
<i>Founded:</i>	1976
<i>Chairman:</i>	Pierino Persico
<i>2018 Revenue:</i>	180 million Usd
<i>Employees:</i>	570



First **Leonardo** Machine  
(oil heated)

First **Smart** Machine 1.8  
(electrically heated)

2000

2009

2013

2017

First **Leonardo** Machine  
(electrically heated)

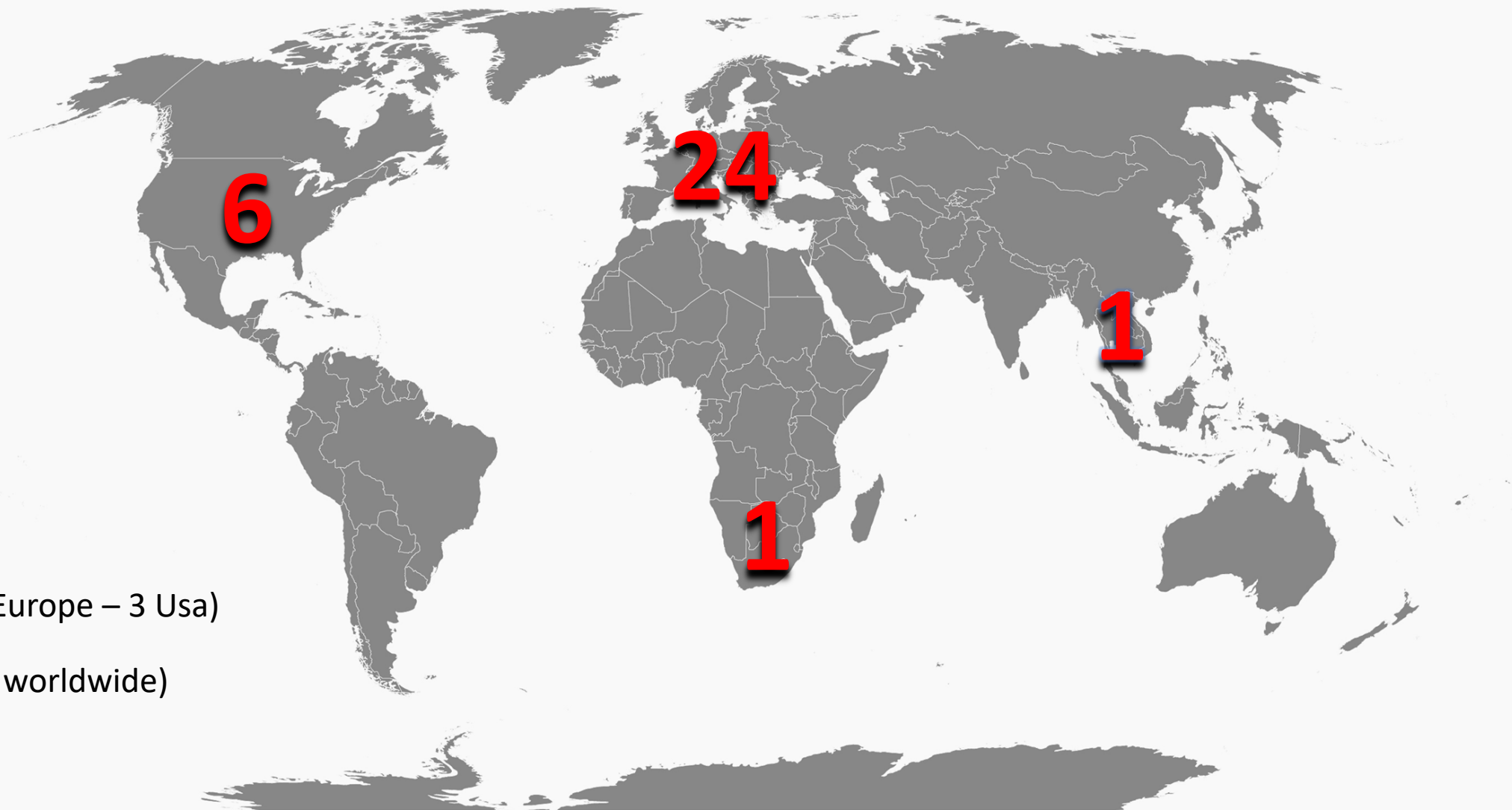
First **Smart** Machine 2.8  
(electrically heated)



### PRESENT & FUTURE:

- Smart + Automation
- Multiple machines as working cell





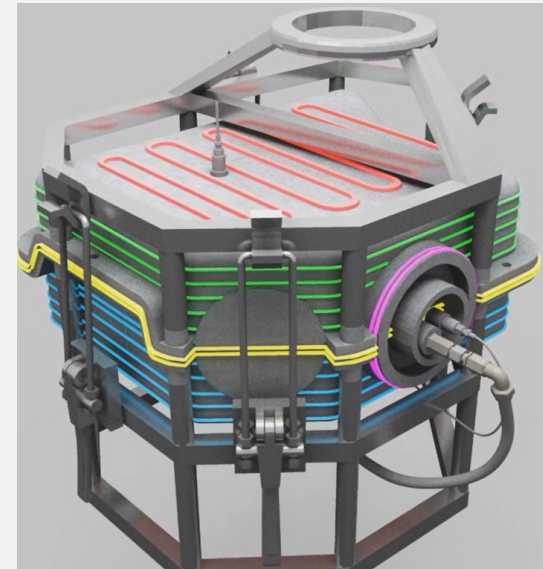
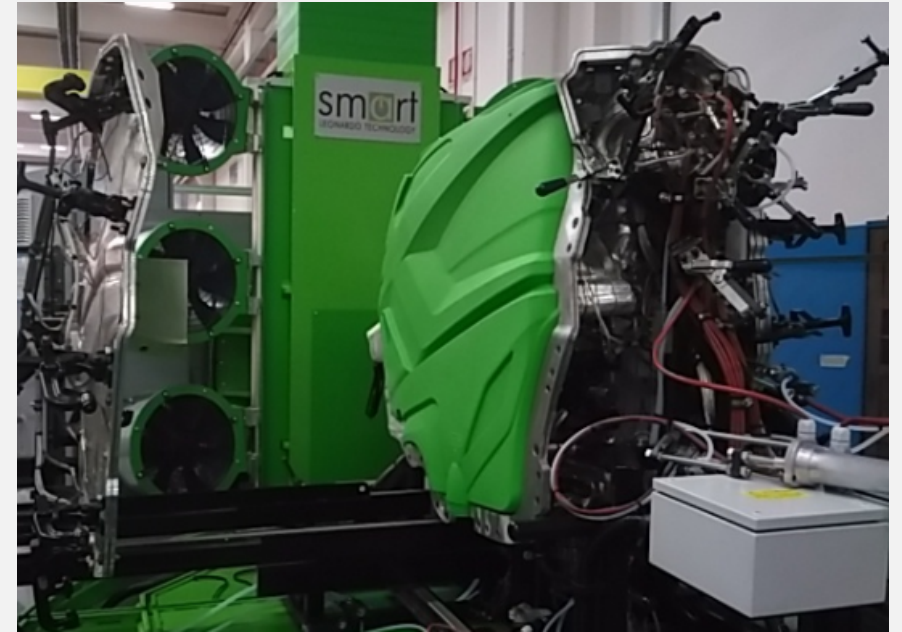
**32** installed

**7** on order (4 Europe – 3 Usa)

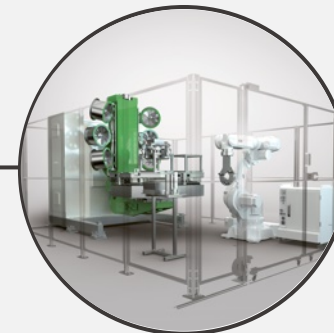
(+50 Leonardo worldwide)

DTH (Direct Tool Heated) prospective:

- The latest generation of products required even greater precision and wall thickness control.
- Incorporate electric heating circuits that can be controlled separately to give precise repeatable control over the powder distribution.
- Combined with the latest generation of Persico Smart Machines allows short, repeatable cycles producing consistent high quality mouldings.
- the SMART Technology provides full traceability on every cycle which can then provide direct input into the customers quality system.



**Persico customer showing 15 years impact on process development of equipments,  
from conventional oven machinery to Leonardo and finally approaching SMART**







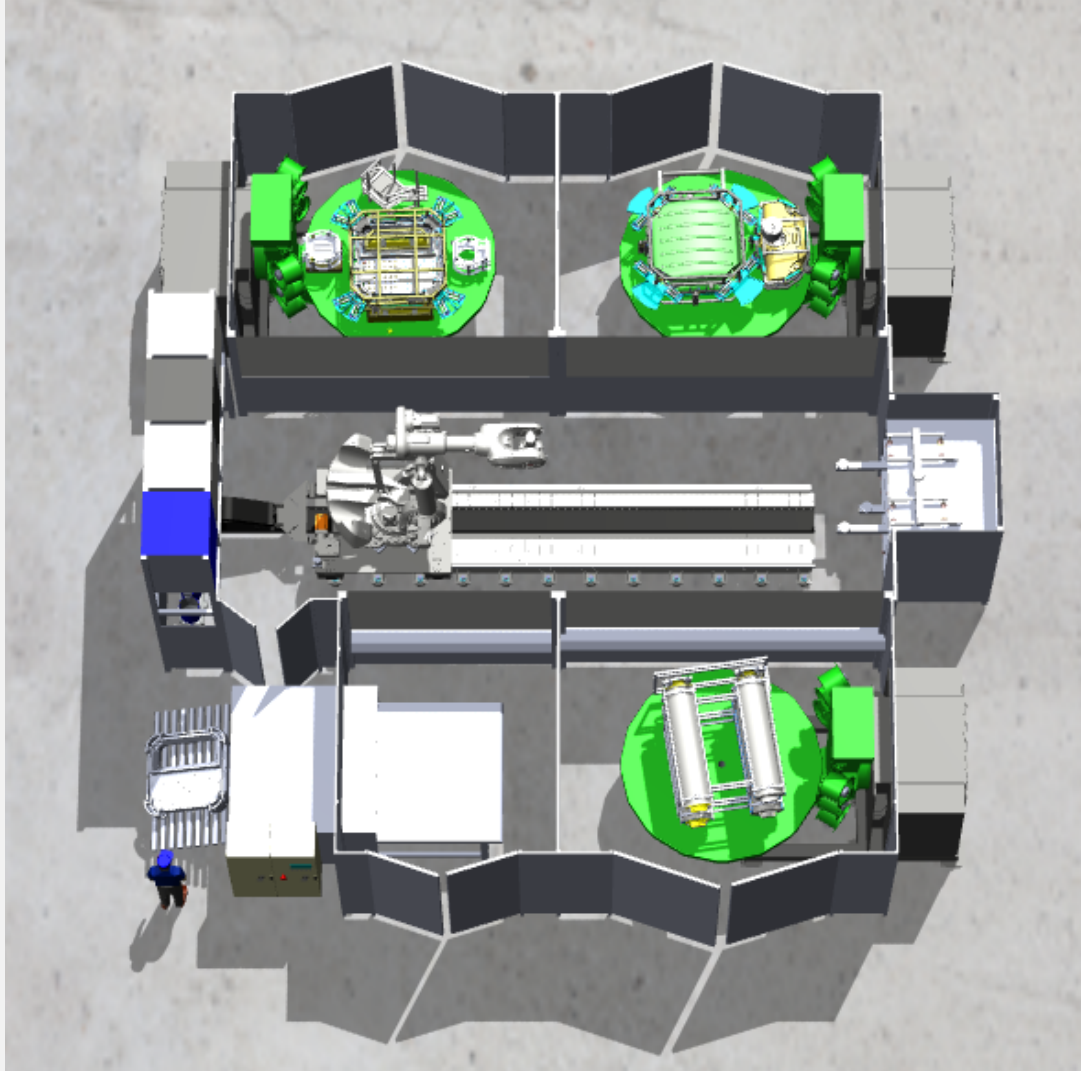


# Portable Toilet Project



### Project overview:

- Existing product
- Each unit made of 10 rotomolded parts (4x pillars + 6 other parts)
- 10.000 pc/year required
- Customer request: **eliminate manpower required for all rotomolding operations related**



### Persico solution:

- Fully automated production cell
- n.3 Smart Machines 2.8
- Automatic Handling system with anthropomorphic robot
- Automatic material filling (4 colours)
- DTH (direct tool heat) electrically heated Automatic molds (opening/closing)

System footprint 43 x 43' (13 x 13 mt)

**SMART 1**

**SMART 2**

Material weighting area

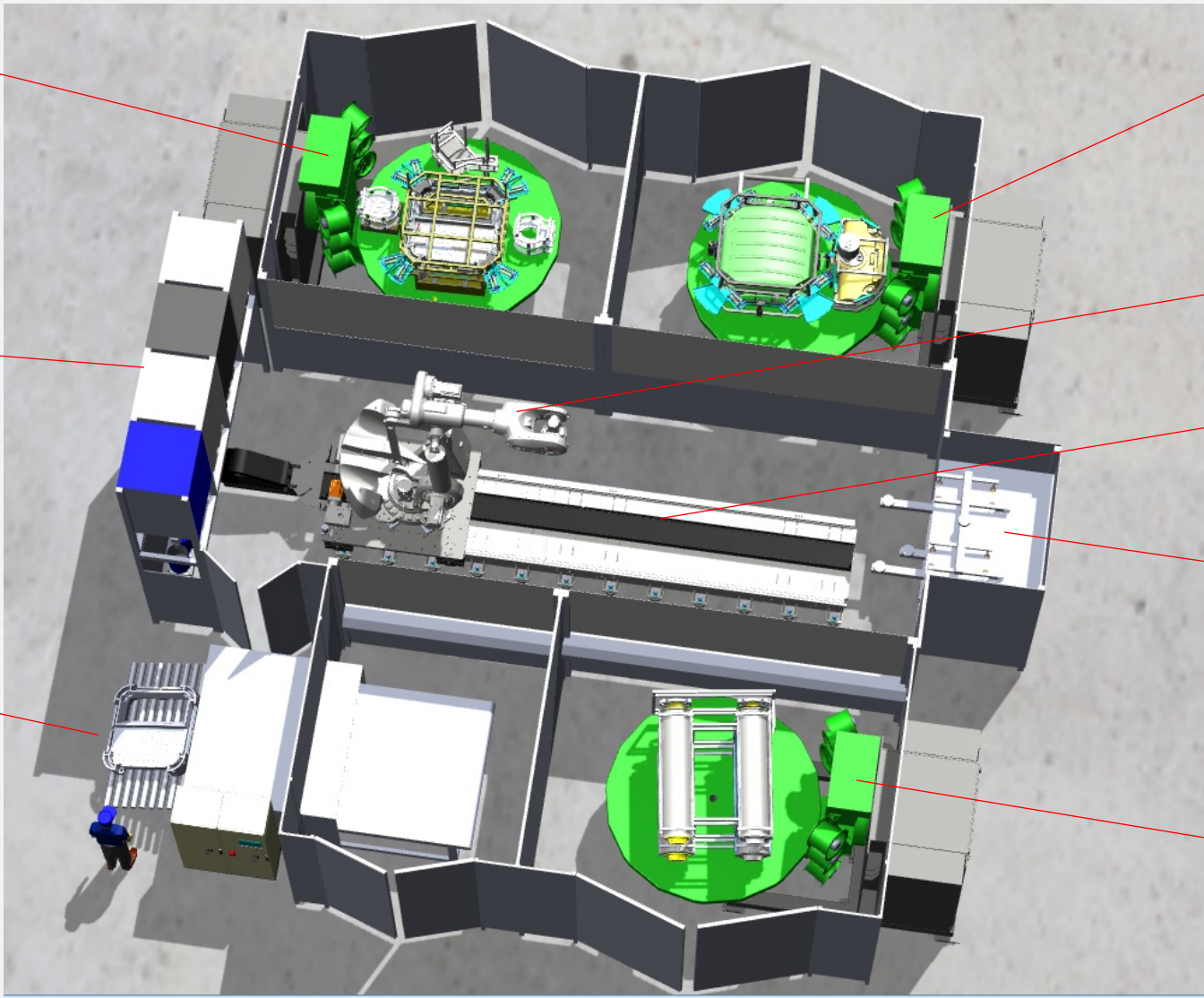
Anthropomorphic robot

Slide for robot

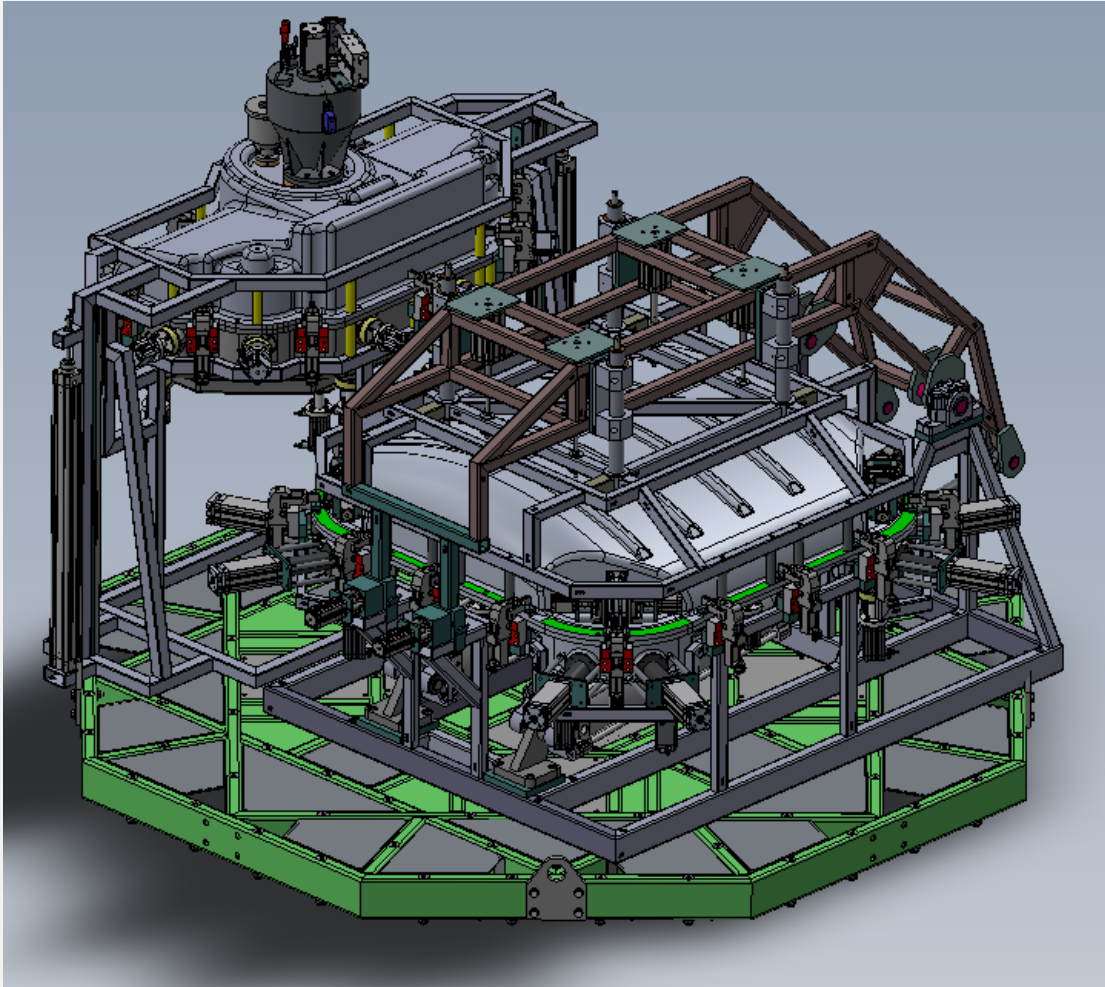
Demolding devices  
parking station

Unloading station

**SMART 3**

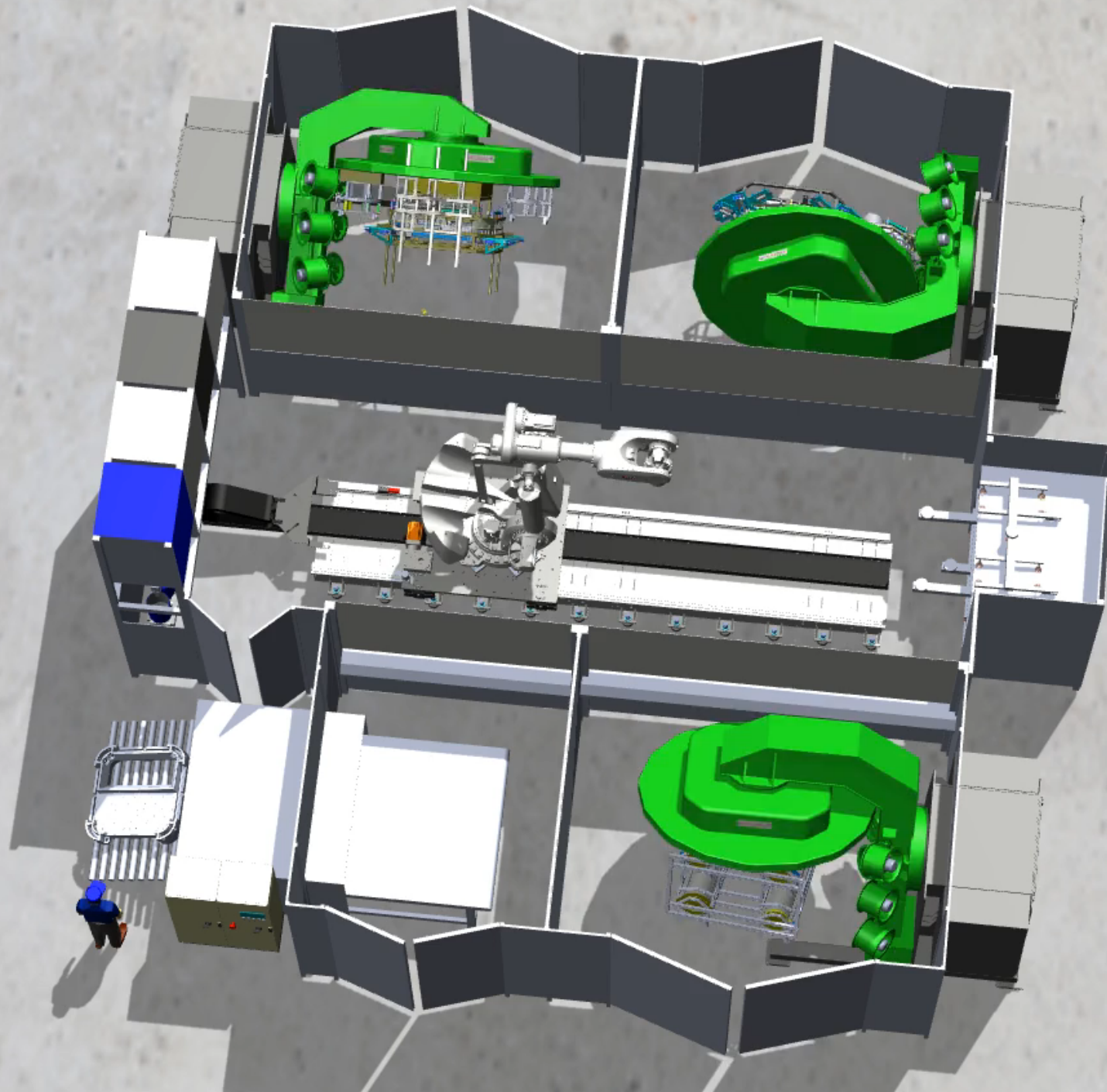






### Molds features:

- Electrically heated (differentiated thickness required on same part) DHT
- Pneumatic clamps on flanges
- Pneumatic opening
- Pneumatic ejectors
- 1 part in double layer: automatic drop box reload
- Temperature sensors





### Performances overview:

- n.1 unit (10 rotomolded parts) every **32min**
- Shot weight reduction VS current product
- Energy cost saving VS current production
- 1x operator required to perform as supervisor







Alessandra Persico, Managing Director of Persico Automotive, receives FCA Supplier Quality Award











28 ton stress load test on carbon fiber foils







October 2nd 2019, Italian prime minister **Giuseppe Conte** introducing the new revolutionary foiling monohull AC75 Luna Rossa racing boat @ Cagliari harbour



## 2020 ARM Executive Forum + IT-RO

March 30<sup>th</sup> - April 3<sup>rd</sup> Lake Garda, Italy



### Itinerary

March 29: Arrive in Milan

March 30: Tour Rototech and Metallurgiche Cornaglia

March 31: Tour **Persico** and Acerbis

April 1: Tour Ve.Ca and Moulding Services and the Ferarri Museum

April 2: Conference at Hotel Caesius

April 3: Conference and Optional Wine Tour

As part off the activities associated with the ARM spring Meeting PERSICO invite you to visit their Facility in Nembro see the latest tooling and Smart technology in action along with their extensive R&D facilities



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YOUR PARTNER FOR THE FUTURE

Thank You