



**Plastic Products  
Innovation & Engineering**

**Company Presentation**

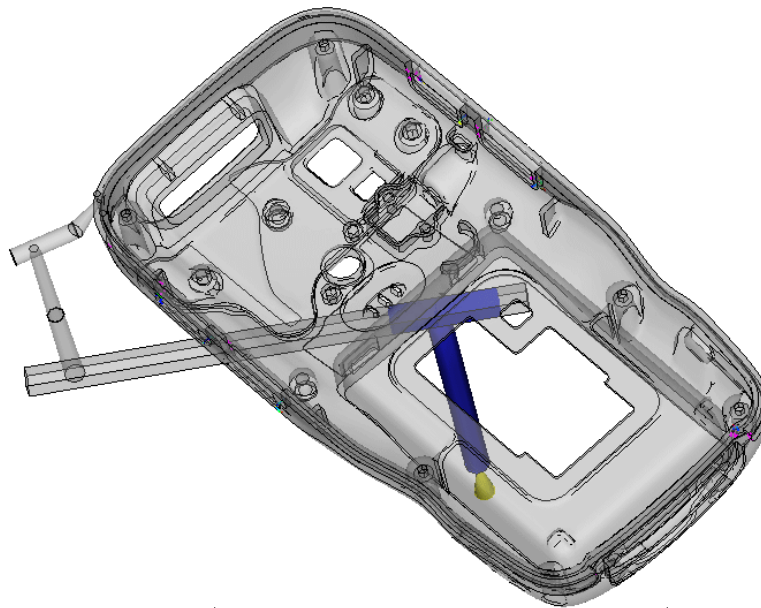
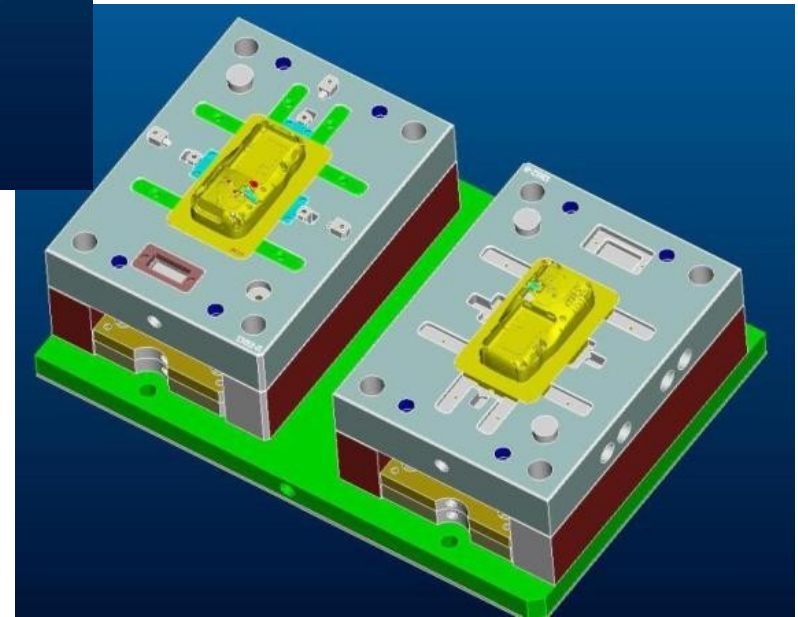
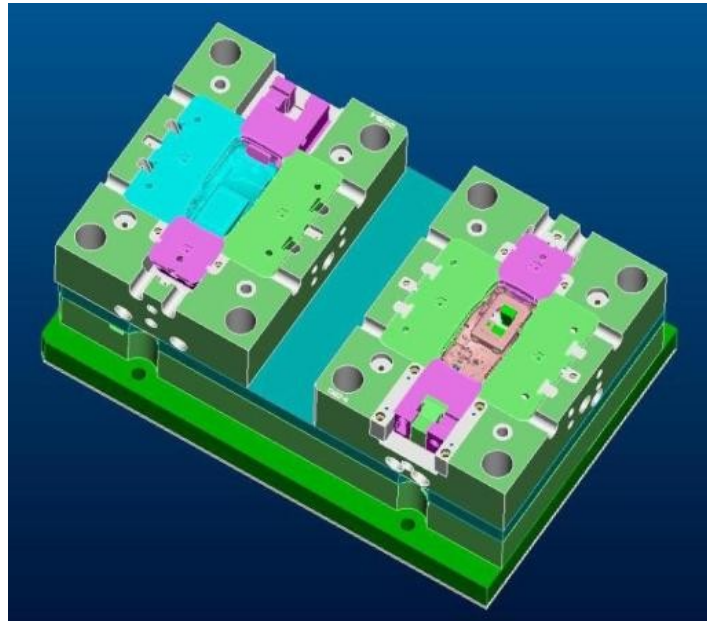


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**GHEPI S.r.l.** has a 40 years experience in injection moulding as a System Supplier and it's involved in projects development: polymers consulting, fluidodynamic simulation, items design, mould injection, gas-injection and bimaterials injection of Technopolymers and High Performance Polymers.



**Design**  
moulds and items  
with Pro-E sw



Scale (100 mm)

Fill time  
= 0.0866[s]

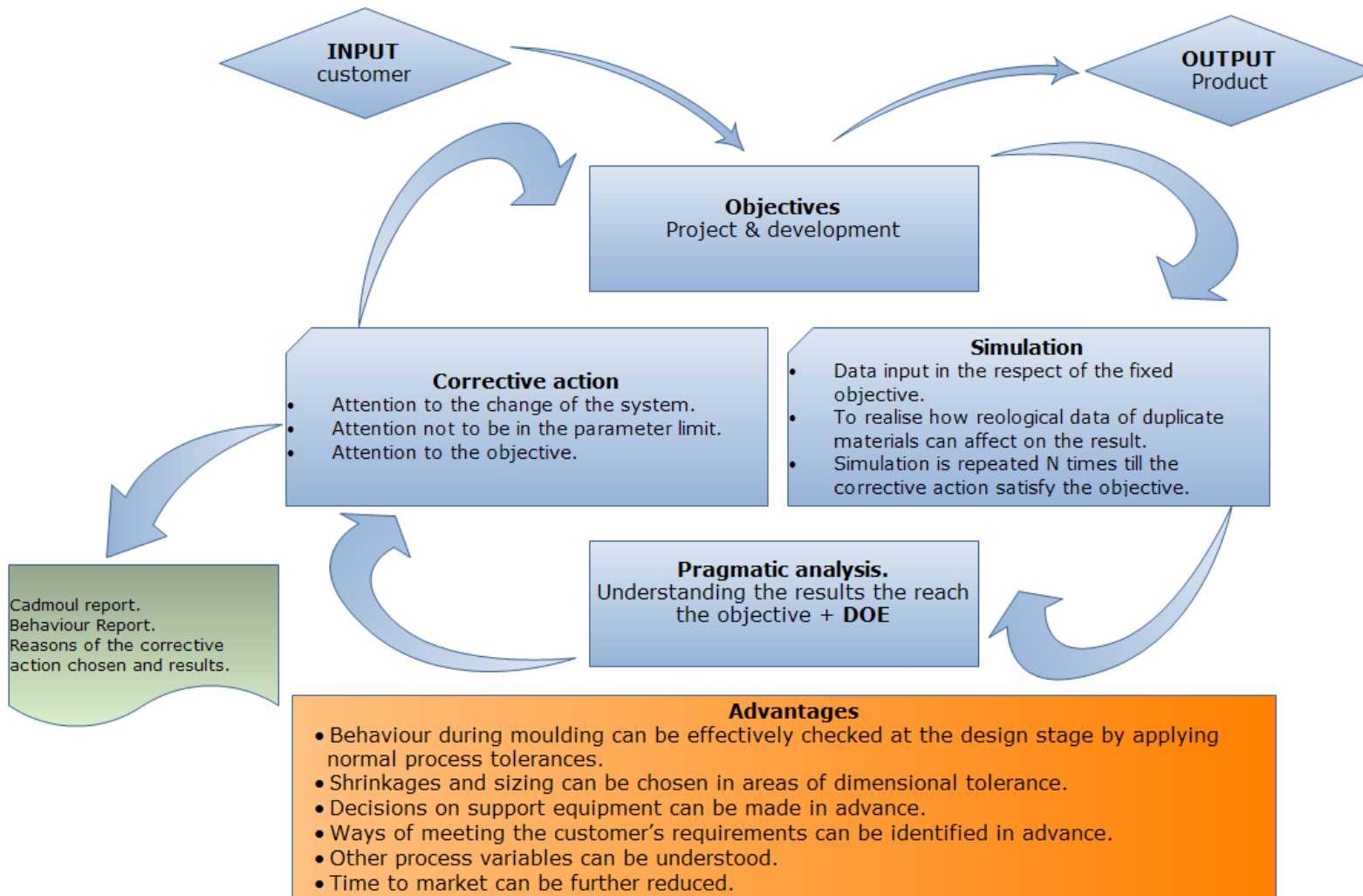


**Simulation**  
of flows, shrinkages and  
deformation with Cad Mould sw for  
the optimization of the execution  
conditions of the item

# Simulation vs Design



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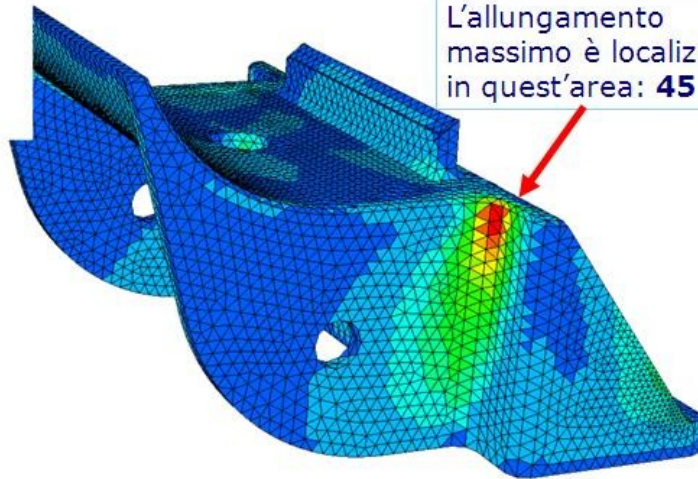




## MASSIMO ALLUNGAMENTO A TRAZIONE

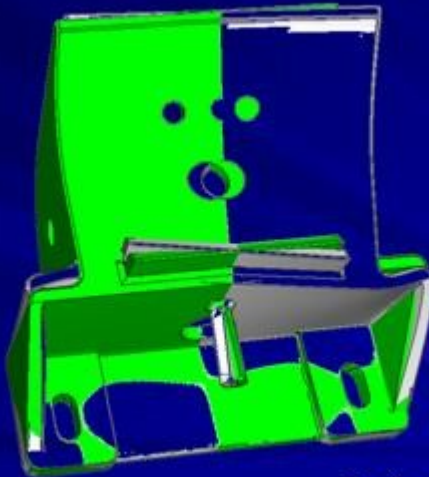
S, Max. Principal  
+4.33e+04  
+3.91e+04  
+3.49e+04  
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+1.80e+04  
+1.38e+04  
+9.52e+03  
+5.41e+03  
+1.20e+03  
-3.02e+03  
-7.23e+03

L'allungamento  
massimo è localizzato  
in quest'area: **45 MPa**



## Metal Replacement

## DEFORMAZIONI

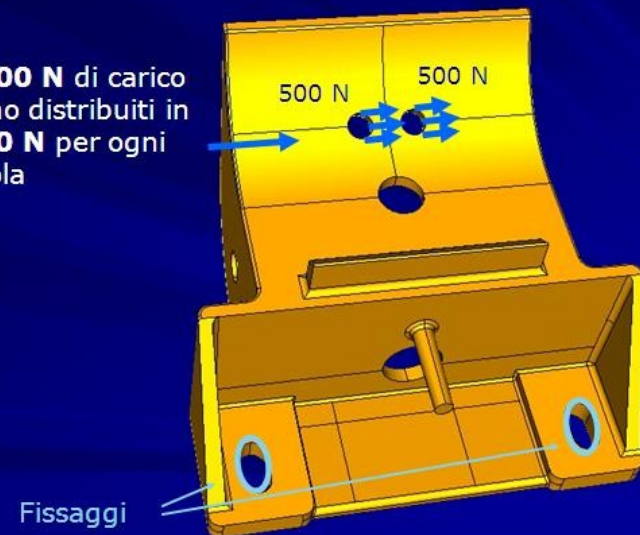


Deformazioni  
amplificate 50 X

Geometria Iniziale

## CARICO APPLICATO AI PUNTI DI FISSAGGIO

**1000 N** di carico  
sono distribuiti in  
**500 N** per ogni  
asola



# Mould's Suppliers Network

Ghepi manages **Moulds Construction** in a Suppliers network both in Italy and in Low Cost countries: the goal is to satisfy several and growing Customers' needs.

In China, Ghepi built an excellent cooperation with Suppliers that have qualified people and advanced technologies. Despite the distance the service flexibility and the quick reply of the suppliers made possible to obtain good results: this is really appreciated by the Customers.

Ghepi has an **Internal Workshop** with EDM and CNC 3 and 5 axes planned with CAD-CAM.



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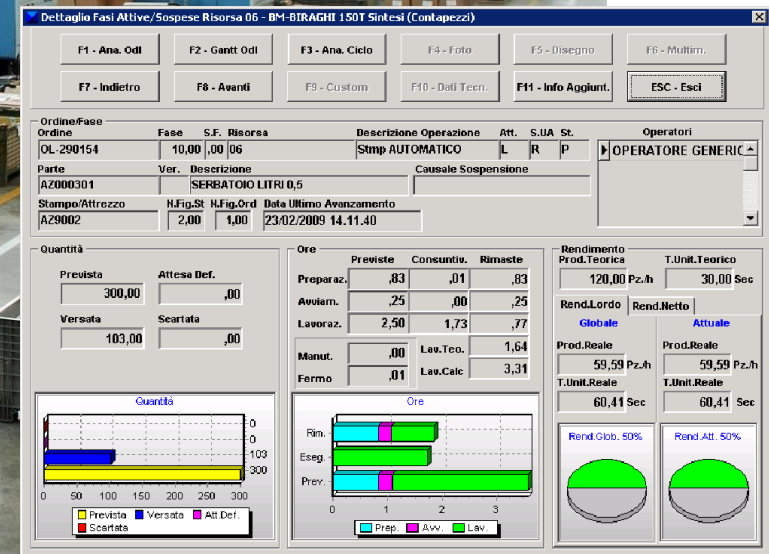
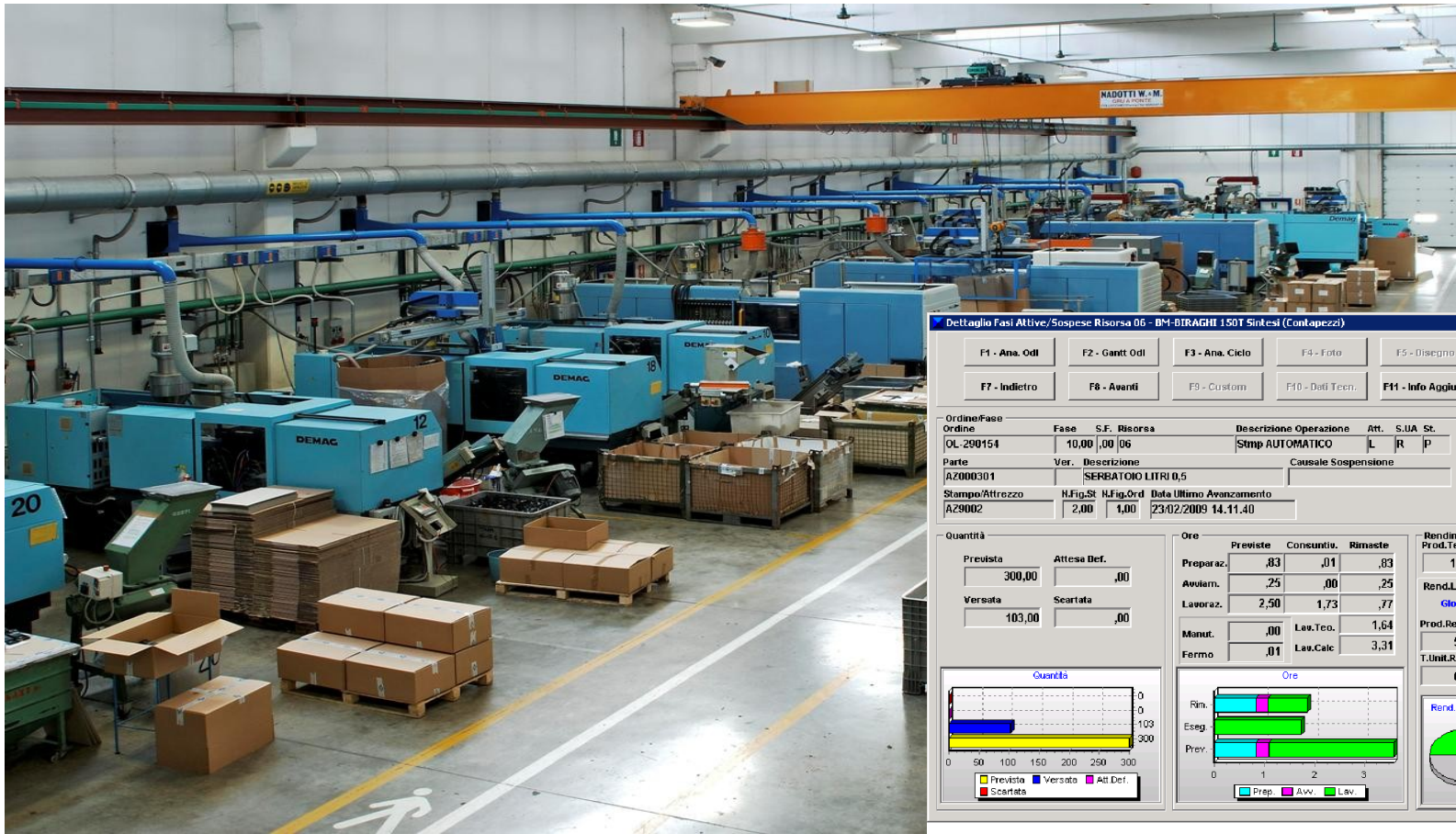
# Production Technologies:

- Injection moulding
- Gas-Injection moulding
- Bi-Material Injection moulding
- Ultrasonic welding
- Vibration welding



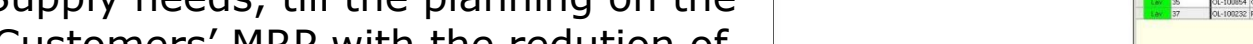
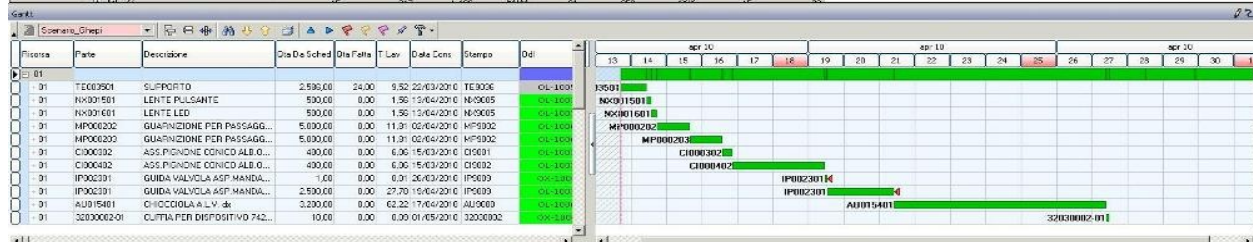
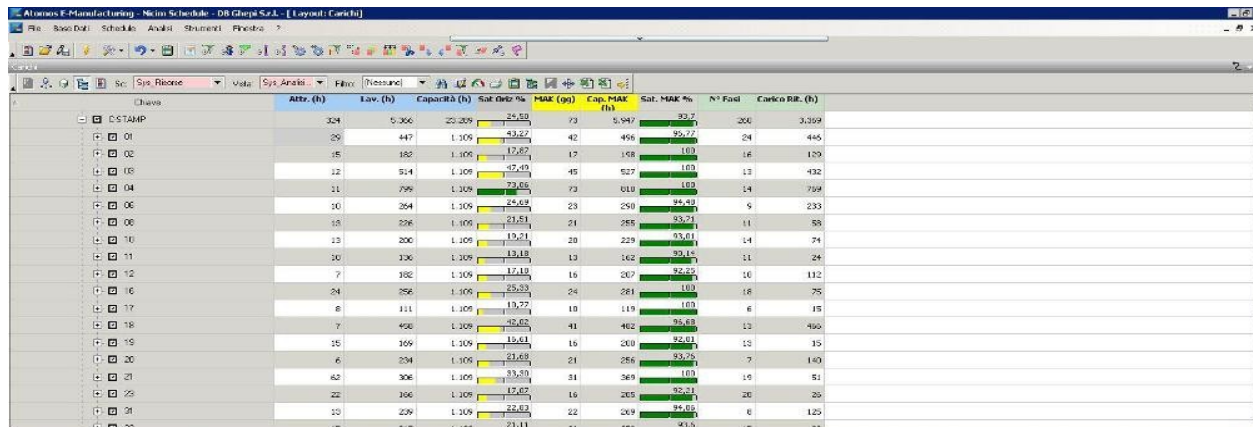
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As a System Supplier Ghepi carries out others additional activities on the Customer request (assembly operations, decorations, etc.)

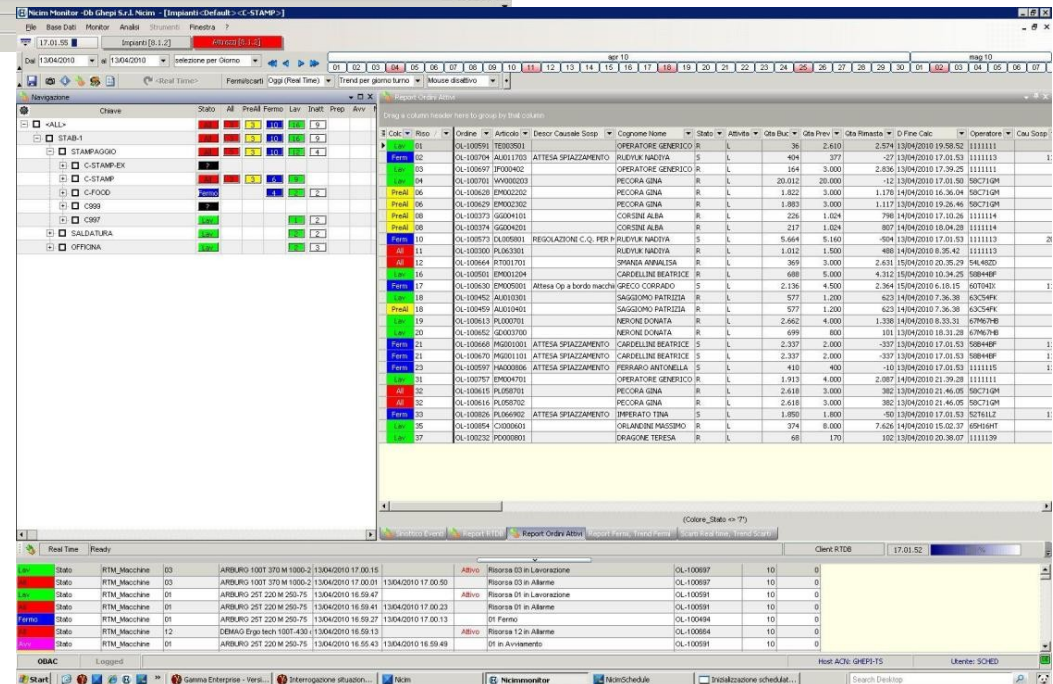




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The machineries fleet consists of almost 30 injection machines with a capacity ranging from 25 a 650 ton: this made possible a large flexibility in **Production Planning**. We are able to reply to the Logistic Supply needs, till the planning on the Customers' MRP with the redution of the **lead time**.





**Technical items production** with Technopolymers and High Performance Polymers for different sectors.



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## Food Packaging Production:

experience in managing with high automated work stations and injection machines for fast cycle applications, assembly lines, ultrasonic welding and vision.







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## R&D and INNOVATION

- **CUSTOMER DEMAND:**
  - Metal Replacement Project.
  - Tetra Pak Product and Process R&D to define the product design and to test Bio-Polymers with dedicated moulding machines.
  - Polymers Replacement/Changing Project to achieve new requirements.
- **THESEUS – Craft Project of 6<sup>th</sup> EU Framework Program** with Valencia University in partnership with SMEs and Research Institute.
- **VIM – Integrated Project of 6<sup>th</sup> EU Framework Program** with Aachen, Tampere and Valencia University in partnership with Big Companies (Nokia and Lego), SMEs and Research Institute.
- **REMPPLANET - 7<sup>th</sup> EU Framework Program** with SUPSI (Professional University in Lugano), Aachen and Valencia University in partnership with Big Companies (Festo), SMEs and Research Institute.
- **Italian Program “Industria 2015”** on Bio-Polymers research area (under evaluation).





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# COLLABORATION AND CERTIFICATIONS

## ❖ **COLLABORATION:**

- **CRIT Research** (Technological Innovation and Research Center) as a member of the Endorsed Suppliers Network.
- **CLUB MECCATRONICA:** Member of Mechatronics Group of the Entrepreneurs Association in Reggio Emilia.

## ❖ **CERTIFICATIONS:**

- Uni En Iso 9001:2000
- Uni En Iso 14001:2004

## Innovative Companies NETWORK

- ❖ To meet the growing need for cost optimization of supply chain management by medium to large companies, achieved through greater rationalization and efficiency of suppliers, GHEPI takes part to NetMade, a Companies Network that operates as a **Solutions Provider** for the projects development in the following areas:
  - Injection moulding, Gas-Injection, Bi-Material Injection
  - Thermoforming
  - Blow Moulding
  - Vulcanization and compression of rubber
  - Analysis laboratory



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**Thank you for your attention.**