



IEMA

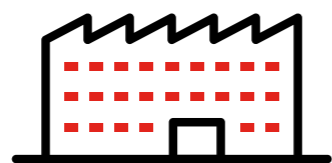
**A NEW
INDUSTRIAL
AUTOMATION
IS COMING**



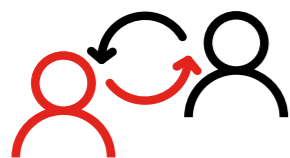
At a glance



800 +
employees



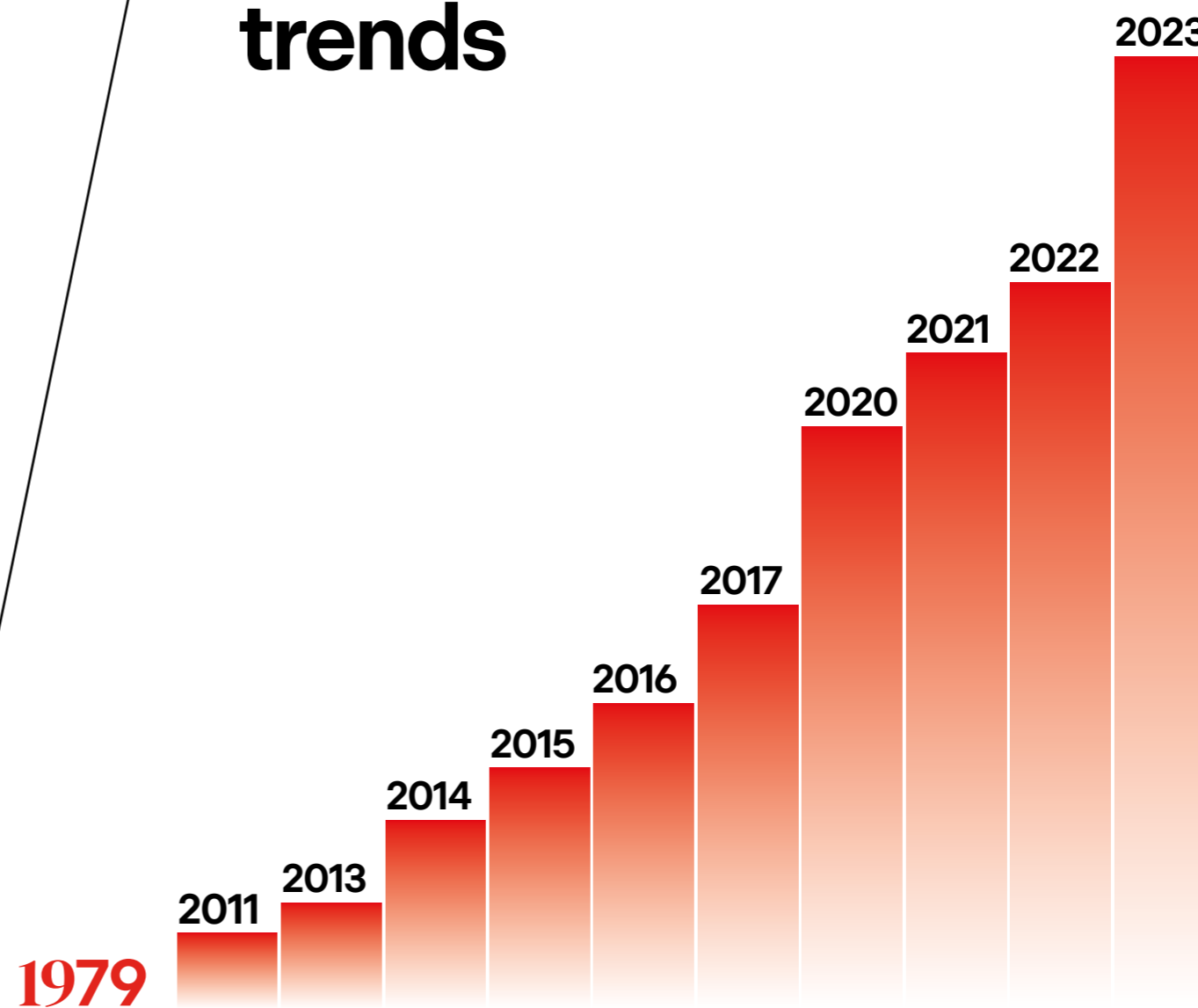
65000
m² of plants



150 mln
turnover



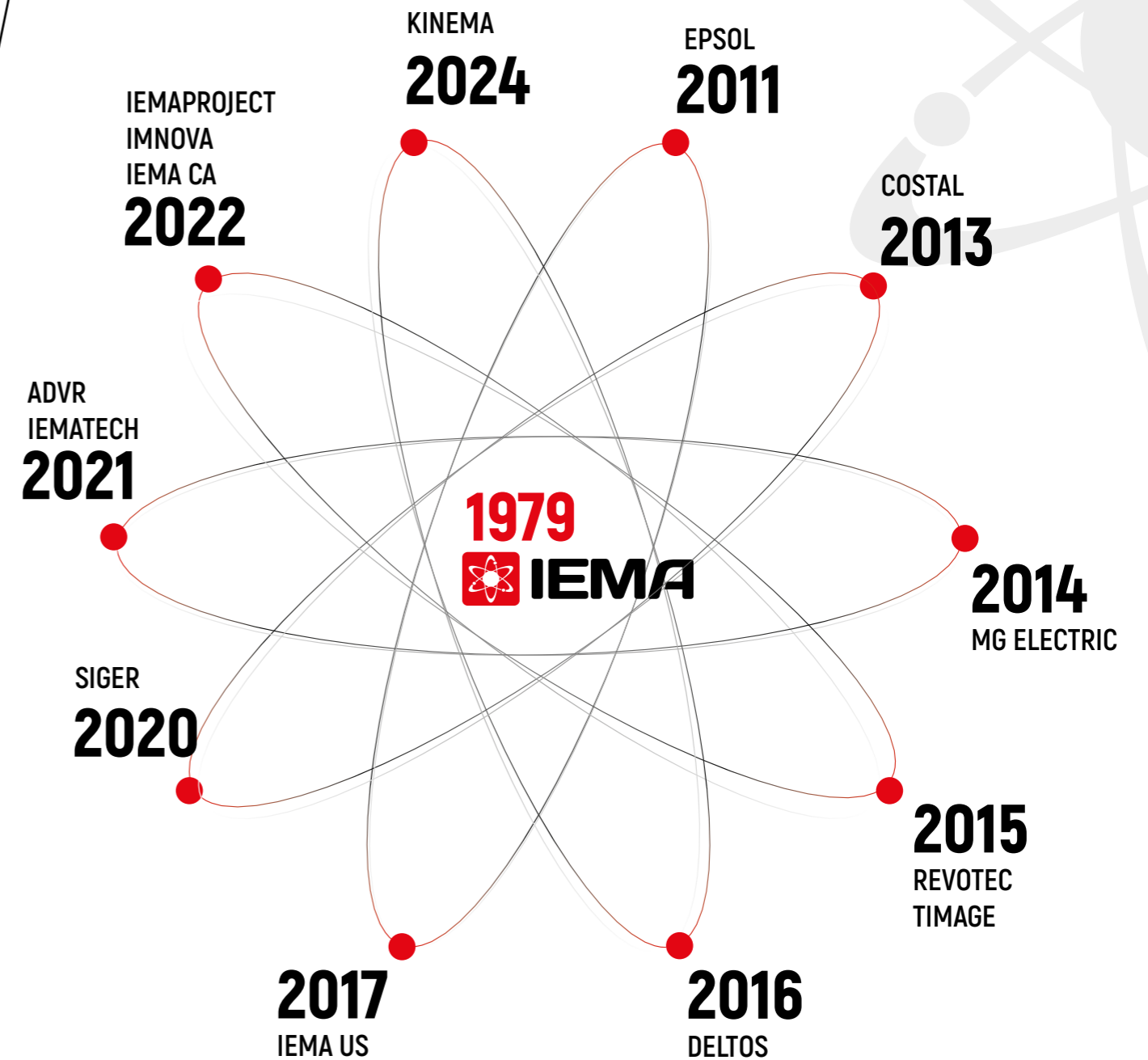
Economic trends





IEMA group galaxy

IEMA is now a large industrial group composed of **15 entrepreneurial businesses** serving industry.





IEMA Group Vision

Electrical Cabinets Process Standardizations in order to **guarantee zero defects** approach on the products; Provide high technology solution for the **digitalization of the industrial process.**

Electrical Cabinets Process Standardization



High level of Investments

IEMA Group Strategy

High level of investments in Industrialization and Quality Process.

Focus on Customer Needs based on Key Account Manager approach.

Short terms Delivery based on Flat Organization and Management Coordination.

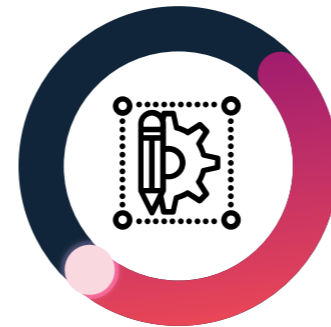
High level of Competence and Quality Performance.

High level of Product tracking starting from the Order to the After Sales.





IEMA Group Services



Hardware design
79 engineers



Software design
167 engineers



Hardware production
392 electrical
technicians



System certification
7 engineers



Technical documentation
50 engineers



Spare part catalogue
10 engineers



Digital Contents
15 engineers



Technical translation
10 engineers



Risk analysis
5 engineers



Mechanical installation
58 engineers



R&D
12 engineers



Robotic
19 engineers





Electrical Systems for Automatic Machines



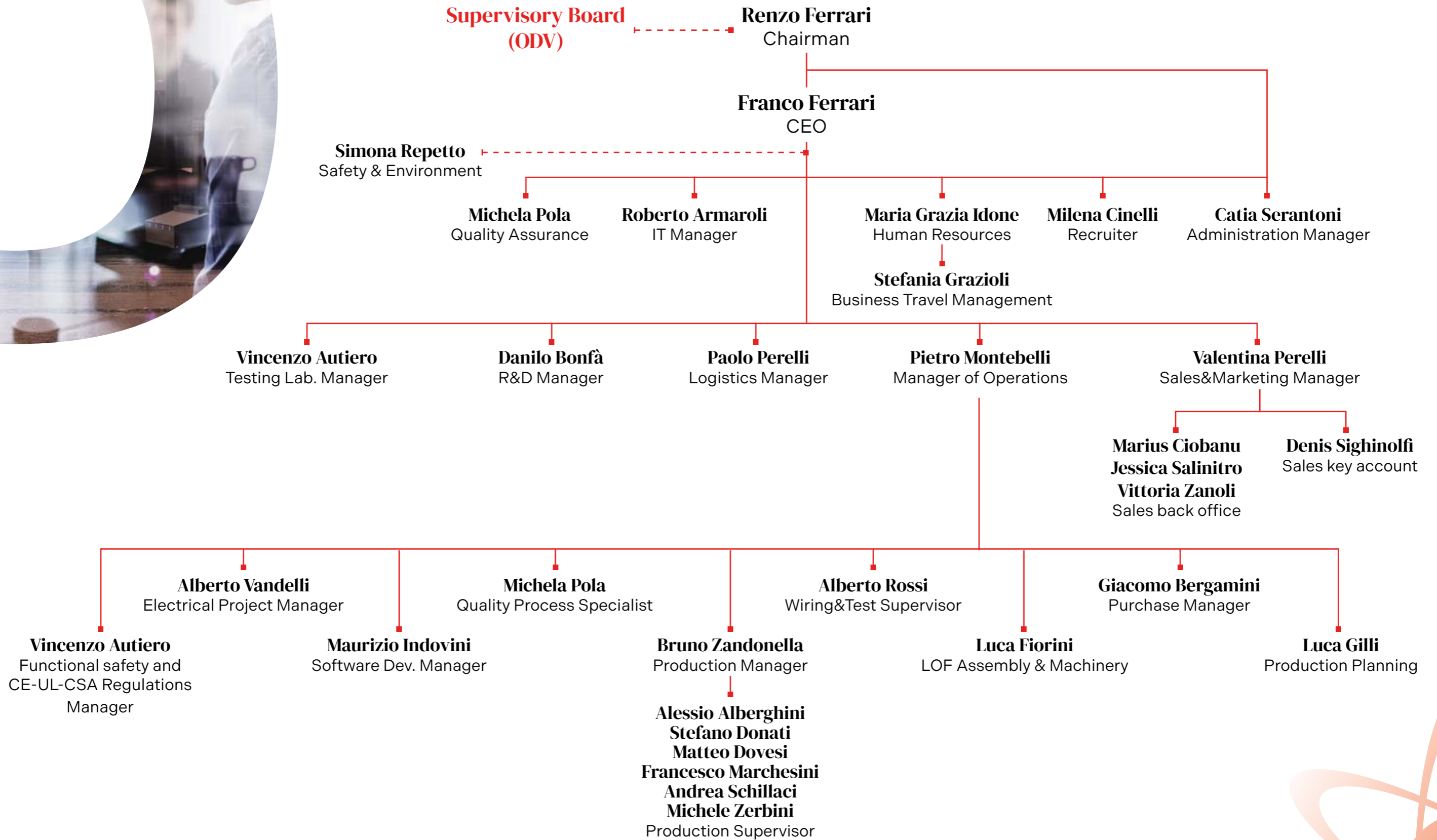
IEMA is the leader of the group, offering a complete service in the field of automation systems, from design to installation at the customer site.

Through the consolidated experience in automatic lines and the skills of a big group, **IEMA** provides turnkey solution to automatize manual operations with the integration of robotic areas.

Continuous investments in research and development allow to optimize processes making **IEMA** a forerunner in advanced working methods.

www.iemasrl.com

Organization Chart





**WorldWide
Offices**



**Bologna
Milan
Bucharest
Toronto
Chicago**





Main Contractor

IEMA offers the opportunity to count on a single intermediary for **management of all tasks in automation**: electrical, design, realization, installation and assistance sector.

IEMA manages the procurement process offering excellent, **advantageous purchase terms** thanks to economies of scale generated through large volume.

A
large group
for a
unique
service

360° Automation

- ▣ **Electrical Design**
- ▣ **UL/CSA certification**
- ▣ **Technical documents, catalogues, translation**
- ▣ **Risks Analysis**
- ▣ **Software services** and Virtual Commissioning
- ▣ **Robotic applications**
- ▣ **Test with dedicated simulators** and Quality process
- ▣ **Electrical plant installation**
- ▣ **Software Commissioning**
- ▣ **Electrical Measurement** (ISO IEC 17025 Certified)
- ▣ **After sales support**
- ▣ **On-site production assistance**





LOF

In 2015, the R&D process of **IEMA** was put into practice in the form of the **first automated line** for preparing the components required to assemble an electrical panel.

LOF is the abbreviation chosen by **IEMA** for the ambitious project, designed to **significantly reduce the time and cost** necessary for the realization of electrical systems, while at the same time increasing the quality of the process and final product.

Line of Future



LOF is the fully automated IEMA assembly line

- 1** Automated vertical warehouse
- 2** Automated laser cutting
- 3** Automatic cutting of wiring cables
- 4** Terminal board components
- 5** Automated transport
- 6** Components assembly
- 7** Wiring and manual inspection



Software Design

With the expertise of +150 software technicians, we cover all the areas of industrial automation, guiding our customer in their technology choices.

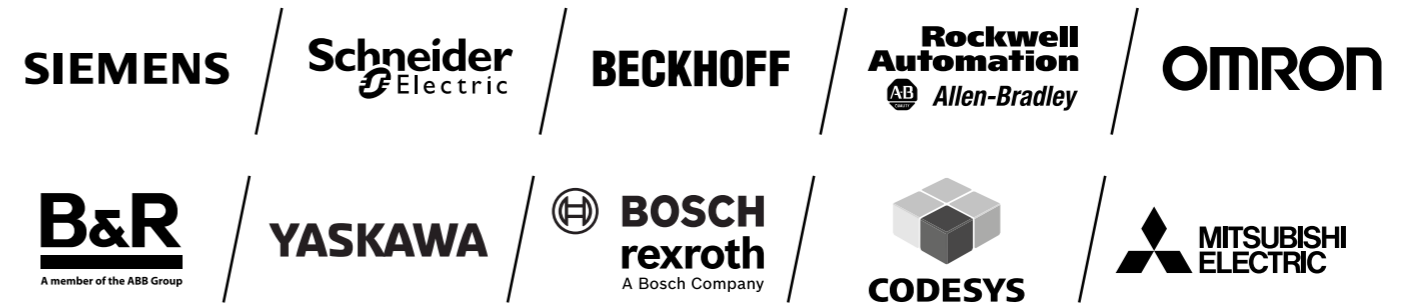
- ▣ PLC configuration
- ▣ Motion Control
- ▣ SCADA
- ▣ MES integration
- ▣ IIOT solutions
- ▣ 3D Vision System
- ▣ Robotics
- ▣ On site installation and tests
- ▣ Aftersales activities

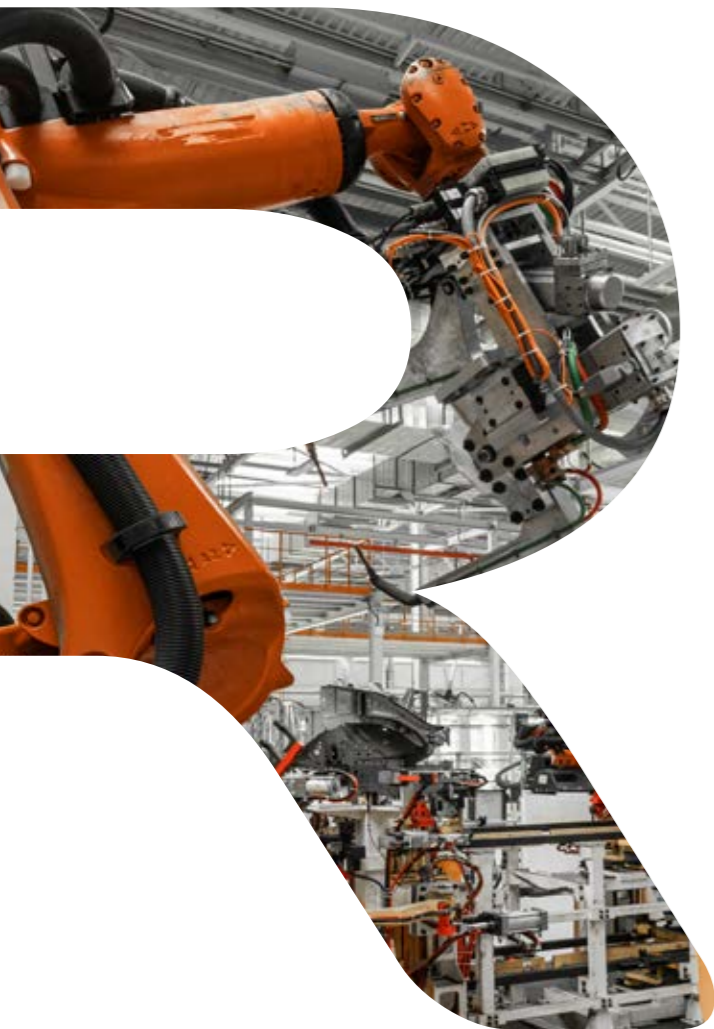
Packaging Automotive Pharma

Food & beverage
Logistics
Metal

We develop software starting from the analysis phase and transforming customer requirements into an efficient and modular program.

We have skills on most of the brand of PLCs and Motion Controllers; our technicians have deep experience in motion control solutions for high- speed machines in many areas:





Robotic Application

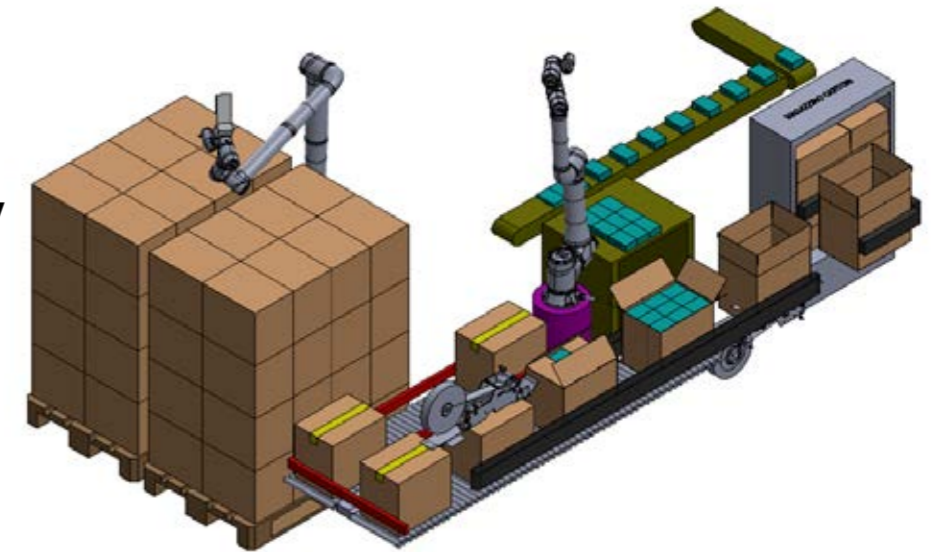
- Industrial and collaborative robot integration
- Autonomous Mobile Robots
- Robotic packaging end of line solutions, bin picking operations
- 3D vision systems and AI

Robotic solution is one of the core business of IEMA



Our technicians can program industrial robots as well as develop special kinematics using motion controller to implement special features on automatic machines or industrial process.

Completely customized turn-key robotic island, from design to installation, safety certifications, manuals and after sales assistance.



STÄUBLI

KUKA

OMRON

YASKAWA

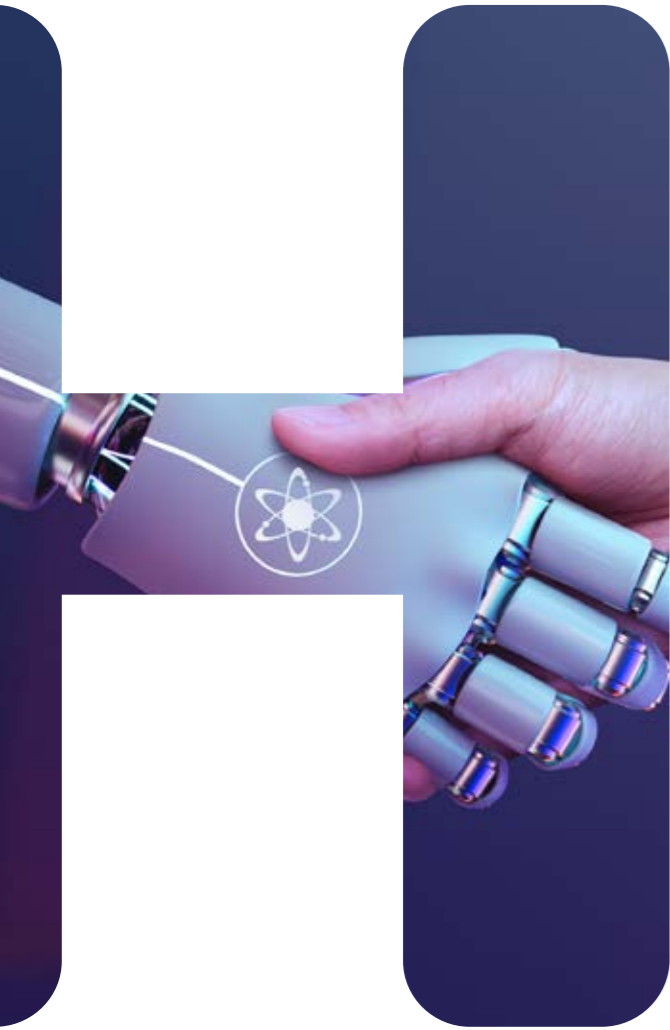
MITSUBISHI ELECTRIC

Kawasaki
Powering your potential

FANUC

ABB





Human Evolution

IEMA group is active in digital innovation related to automatic lines, machines and production plant offering a complete range of services and product with the purpose of digitize industry.

HuEvo is the concept behind the **IEMA** vision of Digital Innovation. Human Evolution over Artificial Intelligence.

Human Evolution over Artificial Intelligence



Your digital companion



O' Bubble

IEMA designed and implemented customized informatic tools to enhance production efficiency.

O'Bubble is a fully customizable digital trolley, equipped with an industrial PC, USB ports and a capacitive touchscreen monitor.

Operators take notes directly on the project and save it, completely paperless.

The tool has been developed to connect production plant and technical department in real time and make communication secure, immediate, traceable.



Support for production activities

- **Totally portable**, easy to move
- **Reduce paper** use
- **Optimize production** management
- **Shorten communication** time
- **Facilitate remote meetings** directly from the assembly line
- **Fully customizable** in color and settings





Digital Training

In cooperation with our partner company TIMAGE, we realize and develop solutions for **E-learning** and digital training.

Through the assembly of animations obtained from the 3D model of the machine, the operator will be led in the disassembly operations, adjustment, and assembly related to the setup configuration.

solutions for E-learning and digital training



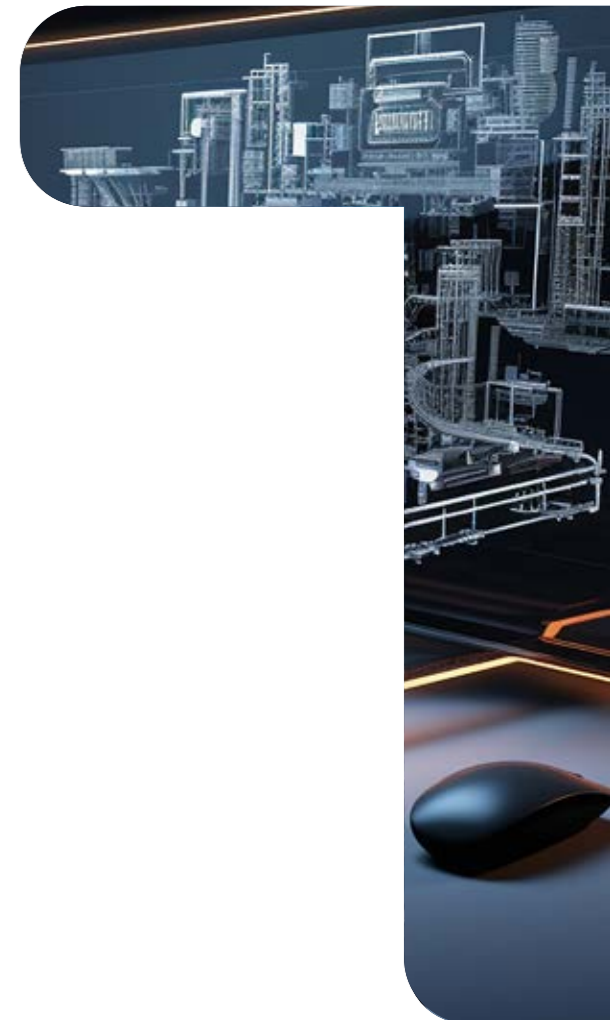
The contents can be created in any language, with AI technology, in 3 versions:

Static Version (A): Text and images

Animated Version (B): Text with clip

Animated version with subtitles (C): Text with clip, with subtitle and voice over

Tracking of the training process can be monitored by the supervisor.





Control Room Service

With remote access, machine suppliers can ensure **24/7/365 connectivity** to industrial networks and individual devices, such as a PLC and HMI, allowing service teams to **remotely manage** equipment at field sites and real time react to operational issues.

Offering the valuable ability to identify machine problems from a remote location, solving most of them

Remotely Manage



24/7/365 connectivity to industrial networks

remotely, and in case remote repair is not an option, be fully prepared before the intervention at customer site.

Remote access to connected machines makes industrial equipment accessible despite its location, **greatly simplifying and expediting the troubleshooting and maintenance process.**

The job of servicing machines just got much more effective.





Ticketing Service

Customized portal to automatize communication between the plant and the Control Room, with **historicization of the interventions**.

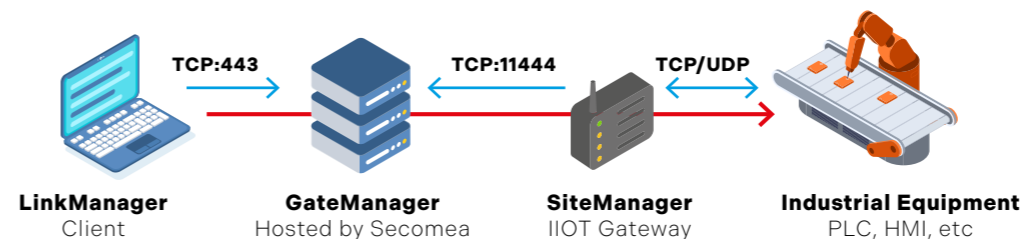


How we connect

We connect to the machines through hardware and software tools, which are compliant with the most updated cybersecurity requirements.

Access from the control room to the machines is possible through the creation of secure VPNs with encrypted connections which are active for the time needed for assistance operations.

Any kind of device (PLC, HMI, Robot, vision systems, etc.) **becomes accessible for assistance and diagnostics**.





how we protect data

Firewall friendly:

Only outbound connections are used on ports 80, 443 or 11444.

Two-Factor-Authentication:

Password in combination with personal security certificates, optionally extended with SMS code validation.

Fine-grained user management:

Distinct Authorization through fine-grained user management in an intuitive web UI, capable of time-limited access restriction down to a single IP or port on a PLC or HMI.



Control Room Service

AD authentication:

Support for AD authentication via LDAP under a Secomea SaaS agreement, including the possibility for differentiating authentication method based on user roles (administrator, remote access user etc.).

Strong encryption:

Strong encryption on all connections (TLS/AES) with access blocked to the wider network from all clients and IoT devices.

Full audit trail:

All access activity is logged to ensure a transparent record of all user activity.





Data collection, Predictive Maintenance

With our **COSTAL** branch, we developed a predictive maintenance system, **COSTRADAMUS**, which collects selected data and records related to the functionality of the machine and allows the end user to perform preventive actions long way before downtime of the machine.

We
developed
a predictive
maintenance
System



It is indeed a perfect system to keep **tracking of maintenance activities.**



Costradamus





Augmented, Reality

Speed up operations and maintenance:

Find any information faster with immediate access to real-time data, user manuals, instructions and diagrams all in one unique tool.

Reduce human errors:

Locate the right equipment and guide operators step-by-step to complete maintenance procedures.

The AR Application takes photos of the machine or electrical cabinet.

Reduce human errors



The AR Application

This Application is an online software tool allowing customers to create custom projects for the AR Operator Application run on a mobile device.

The AR Application further adds point of interests, documents, videos and PLC variables which will be displayed on the mobile device.

The AR Application then overlays points of interest markers on the live scene visible on the mobile device.

When the operator taps the **point of interest (POI)** markers, a wide variety of information such as process variables, documents, Web pages, videos are displayed.



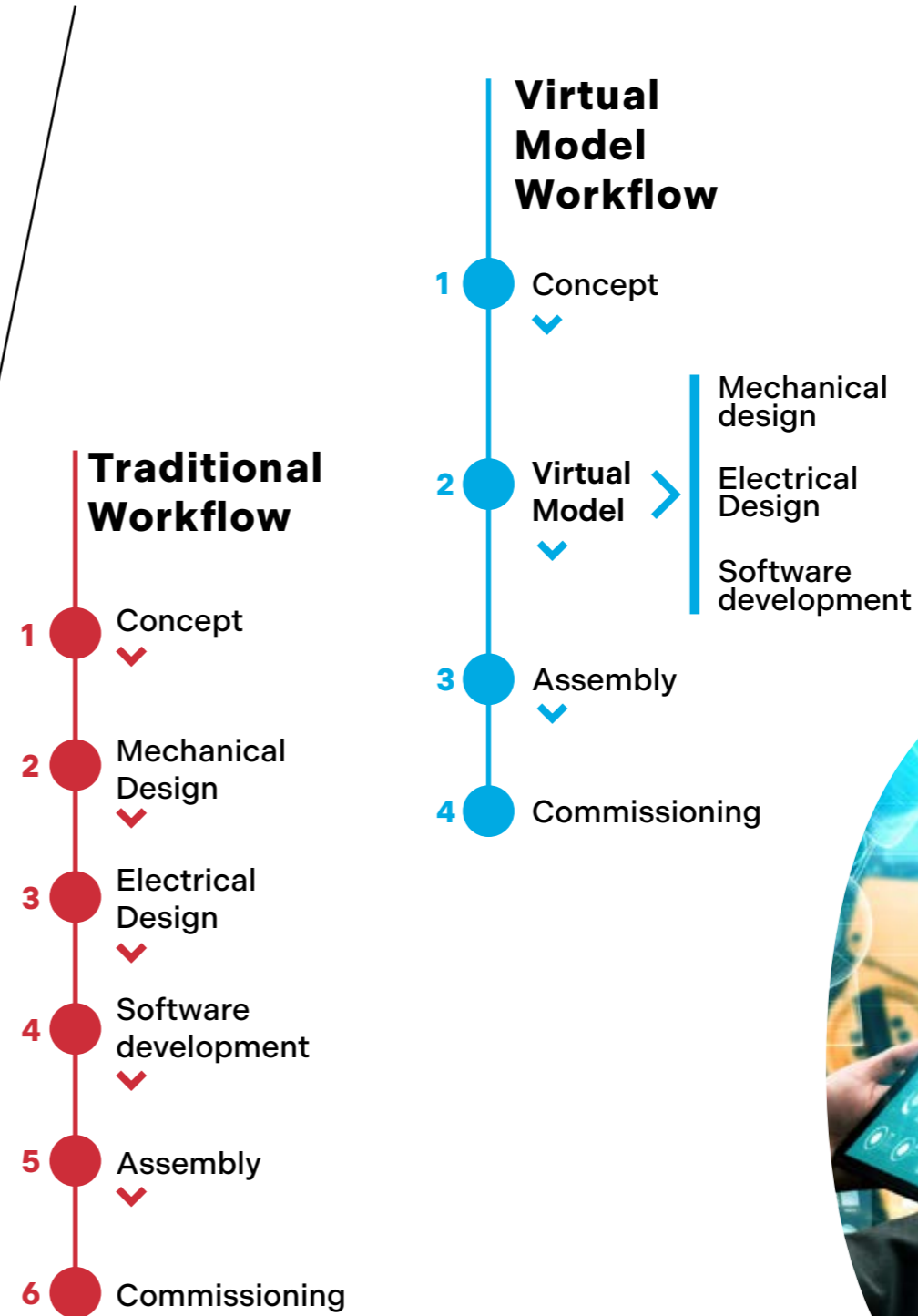


Virtual Commissioning

Virtual Commissioning involves the use of a digital twin of an automatic machine inserted in a simulation environment, capable of emulating its mechanical and electrical behaviour.

The **virtual model** is designed to interface with the control units (PLC, softPLC, MCU...) which determine its operating logic, guaranteeing a suitable tool for the design, verification and validation of the system, before its realization, following the principles of the HIL.

A digital twin of an automatic machine





Packaging Valley

We are located in **Bologna**, known as the **Packaging Valley**.

Bologna is situated in a **strategic position** for easily reaching all the areas of Italy (both by **car and air**).



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