

AUTOMAZIONE

PROCESS, MACHINE & ENERGY AUTOMATION

*A Passion for Automation*

COMPANY OVERVIEW



- Who we are
- MPA philosophy
- References
- Business Areas



**TODAY**

**MPA Automazione S.r.l.** is an engineering company headquartered in Bergamo – Italy born in the year 2000 thanks to the efforts Eng. Roberto Pelicioli, operating in the electric-electronic and automation industry for more than 20 years.

2017: Milani Giovanni enters in the capital share of MPA Automazione to give further growth to the automation business.

During the years, the company has followed a continuous growth strategy, by enlarging its staff and enriching it with additional professional competences. Today our staff can count on:

- ✓ Designers
- ✓ Analysts
- ✓ Programmers
- ✓ Project Manager

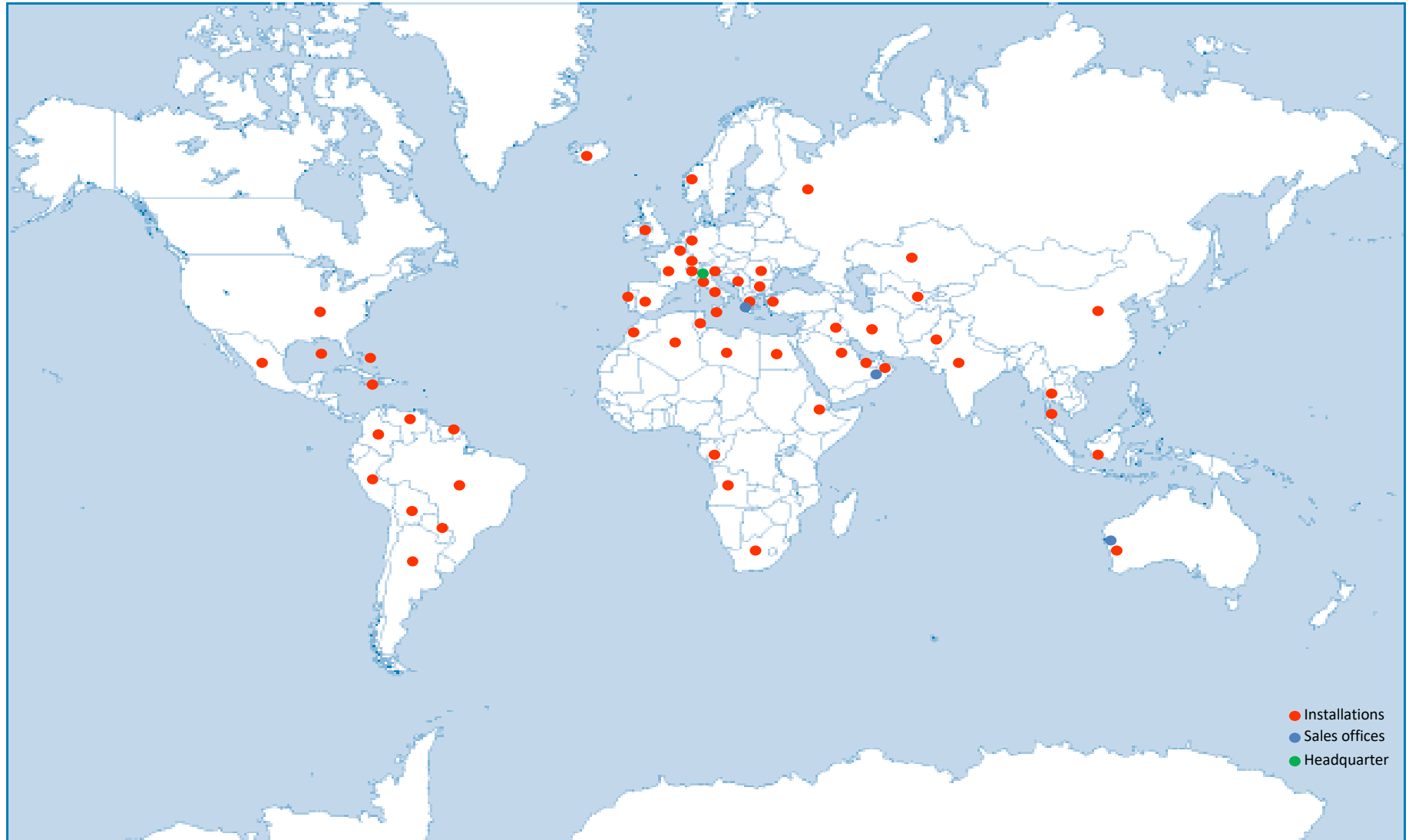
**2000**

**MPA Automazione S.r.l.** follows all the product life cycle:

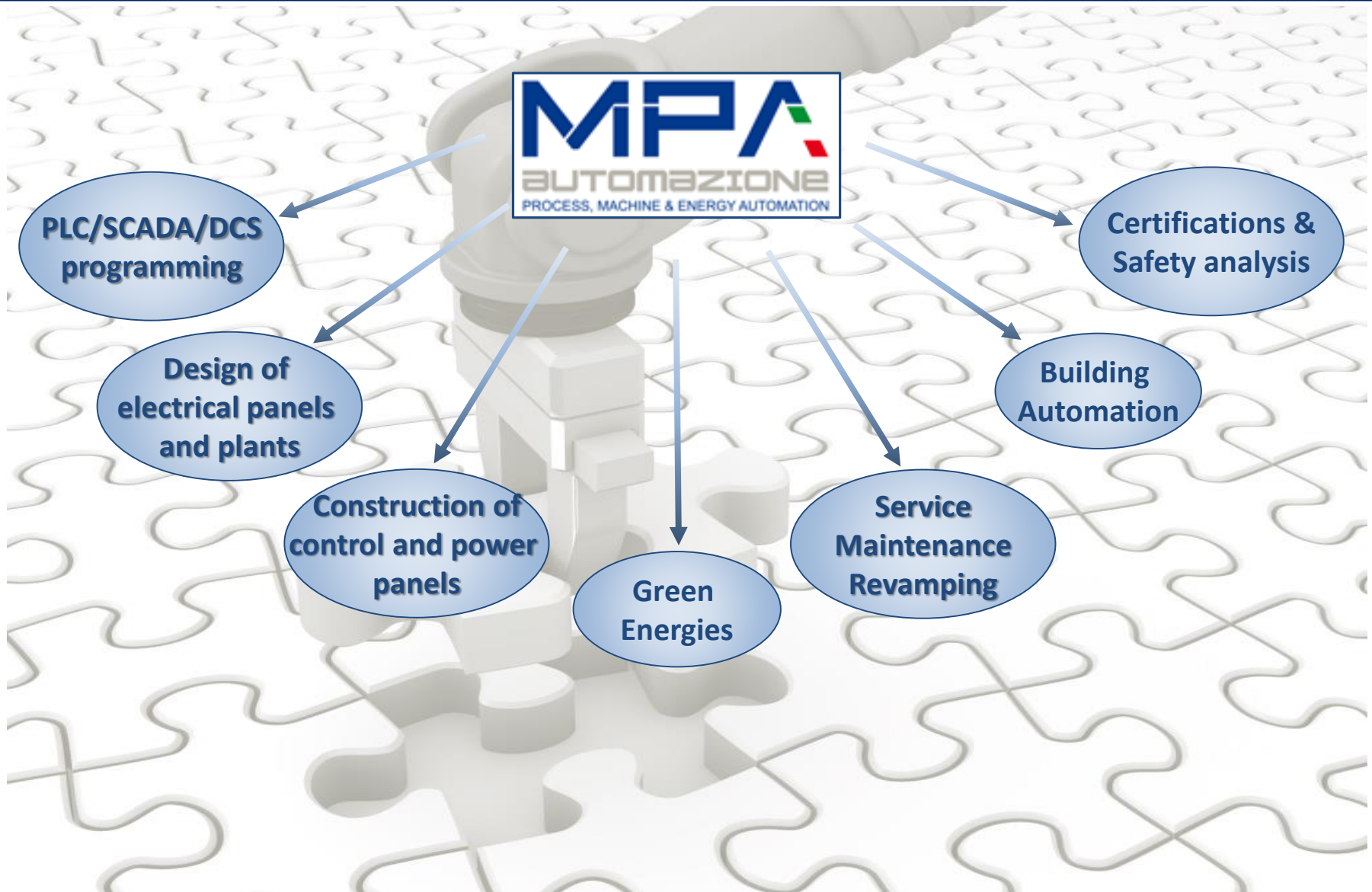


With the target of becoming a reliable **PARTNER** for our customers, with whom we intend to develop a long-term business relationship.

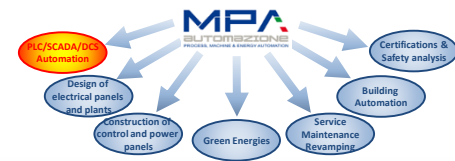
**MPA Automazione S.r.l.** is a company made of people that has invested a lot in the growth of its own human capital with an approach of high professionalism and respect of the ethic of business.



# Business Areas







Design and programming of **PLC**, **DCS**, **SCADA**, **HMI** and **interfaces** with clients' **IT systems** with an unique **TARGET**:  
Translate clients' needs into effective and efficient control systems.

**PLC**

**Rockwell Automation**

**SIEMENS OMRON**



**Schneider Electric**



**BECKHOFF**

**VIPA**



**MITSUBISHI**  
**Rexroth**  
**Panasonic**

**ROBOT**

**ABB** **YASKAWA**  
**KUKA**

**DCS**

**SIEMENS** **Rockwell Automation**



**ABB**



**SCADA/HMI**

**Rockwell Automation**

**SIEMENS** **Movicon**  
MONITORING VISION AND CONTROL

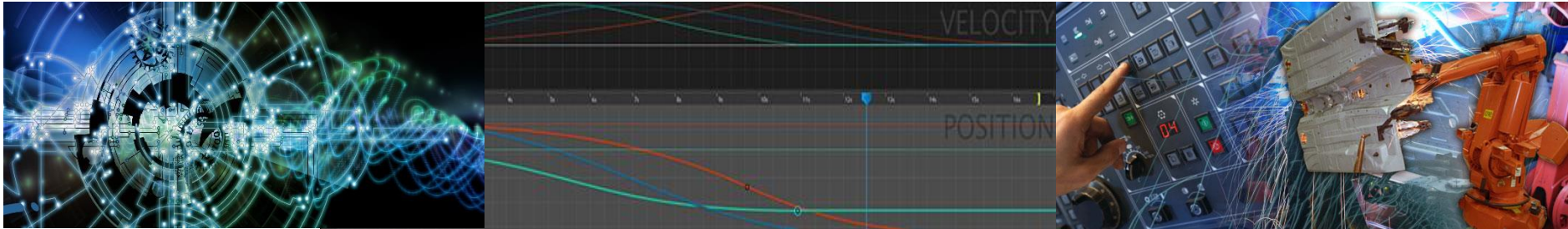
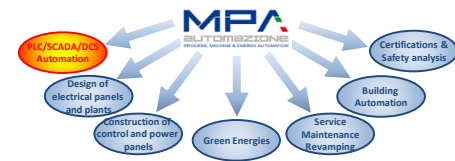


**GE iFIX**  
**Citect**



**UniOP**  
HMI and Control

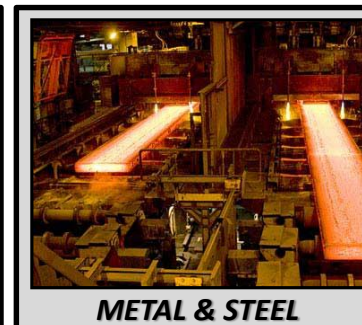
Development of customized systems in C/C++/VB/Vbnet/.net



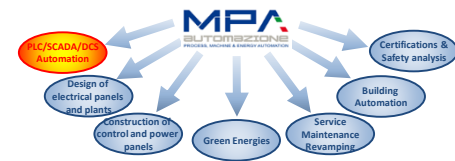
## AUTOMATION OF MACHINES AND PRODUCTION LINES

Automation of single machines or complete productions lines or cells:

- Motion control
- Robot integration
- Vision systems integration
- Mechatronics Engineering
- Coordination of single machine needs to increase the efficiency of a train of machines (i.e.: compressors and turbine)

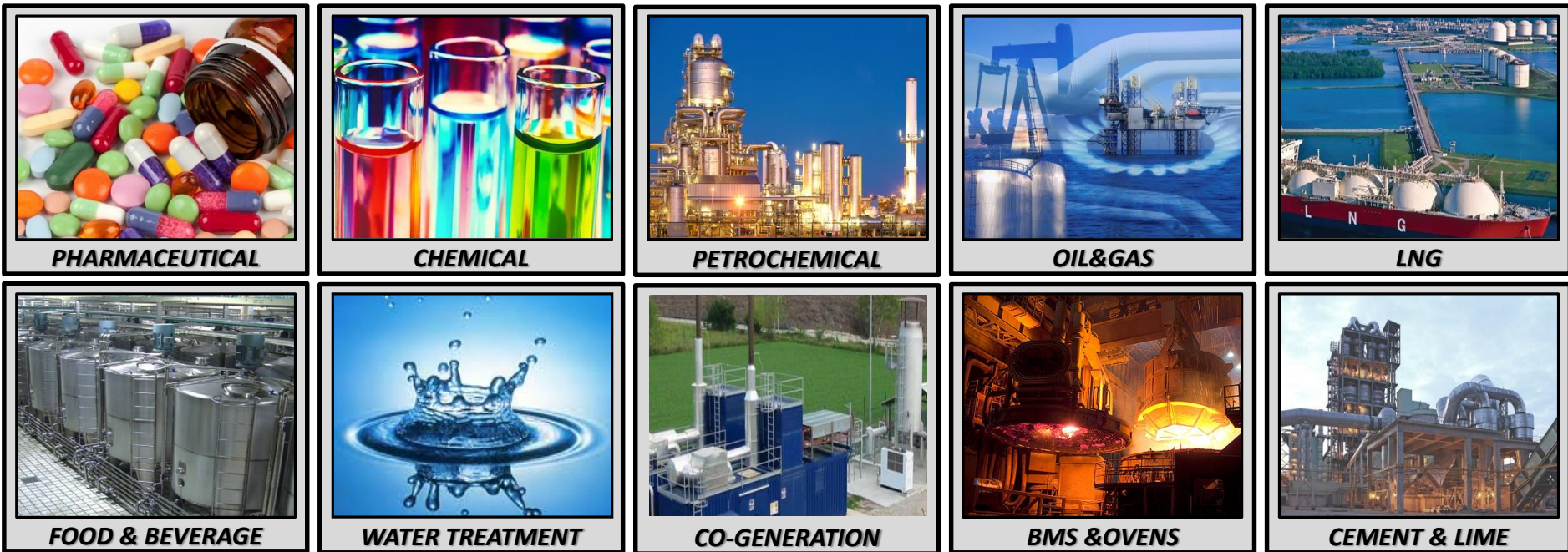






## PROCESS CONTROL

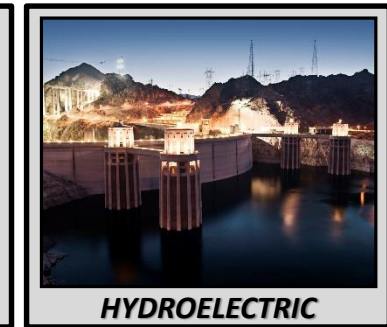
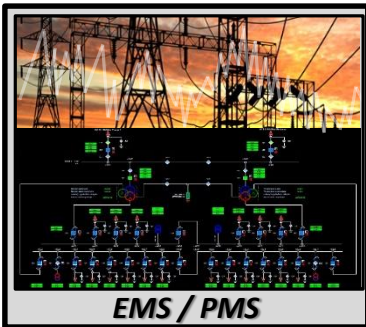
Process management and optimization and batch management, receipt management as per ISA88.1, information tracking, production reports, CFR21 compliant, SQL DB management



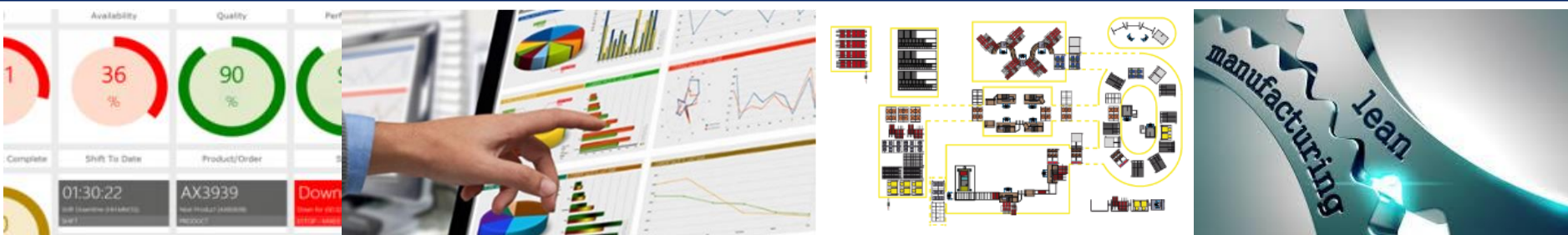
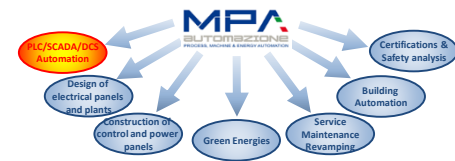


## ENERGY MANAGEMENT

Automation for Power Management Systems (PMS), including the control of load sharing e load shedding







## LEAN PRODUCTION AND ENERGY CONTROL – INDUSTRY 4.0

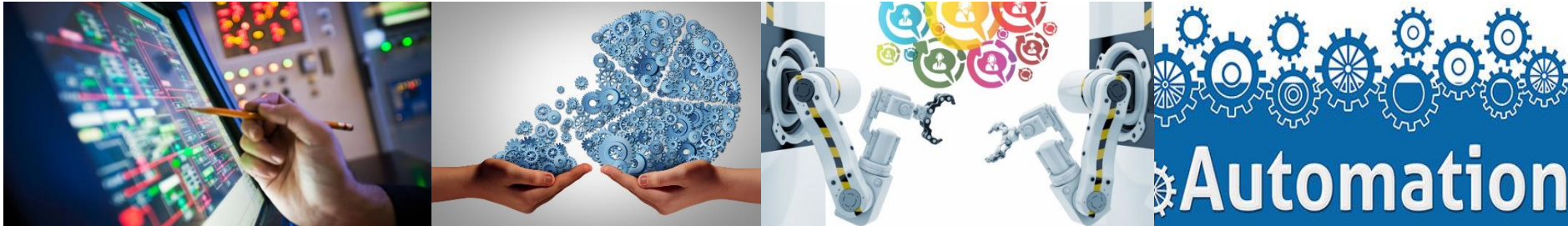
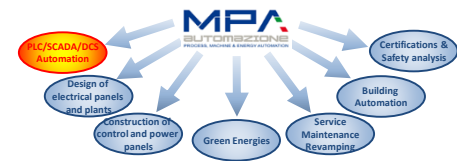
SCADA as EDMS systems for real-time optimization of resources and energy management, CBM maintenance and asset management



- ✓ OEE and other KPI calculation and monitoring
- ✓ Electrical consumption monitoring and optimization
- ✓ Maintenance management (CBM, HR impact reduction)
- ✓ Web server for real-time monitor on tablet and smartphone
  - ✓ Customized reporting and benchmarking

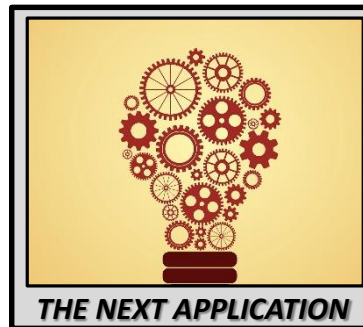


- ✓ OEE and other KPI calculation and monitoring
- ✓ Centralized server management & benchmarking on many plants
  - ✓ Pro-active service management
- ✓ Web server for real-time monitor on tablet and smartphone
  - ✓ Customized reporting and benchmarking



## PROTOTYPING

Process and mechatronic study in close cooperation with client specialists to define new applications, solution to actual issues, increasing of system speed and reactivity, R&D



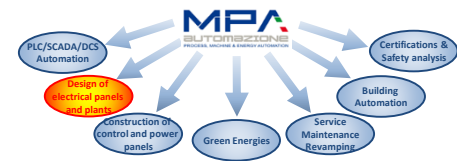
**THE NEXT APPLICATION**

OUR SERVICES in the field of **electrical engineering** can count on more than **30-year experience** of our engineers and includes:



- Design of electrical industrial and civil plants
- Lighting calculation
- Electrical distribution system design (incl. load sharing and load shedding calculations)
- Design of control and power panels for safe and hazardous areas
- Certification of electrical panels and plants for safe and hazardous areas
- Area classification analysis according to ATEX rules
- Engineering for PV plants
- Supervision for site installation

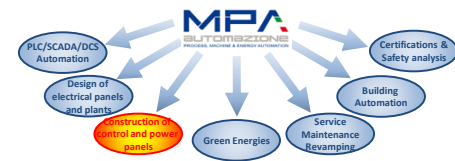




OUR SERVICES in the field of **electrical engineering** can count on more than **30-year experience** of our engineers and includes:



- |   |   |
|---|---|
| ✓ Functional description (from URS or meetings) | ✓ Utility lists                                 |
| ✓ Cause & Effect diagrams                       | ✓ Instrument list                               |
| ✓ Operator manual, disaster recovery procedure  | ✓ Instrument datasheet                          |
| ✓ Control System Architecture                   | ✓ Instrument rack design                        |
| ✓ Logic diagram                                 | ✓ Instrument hookup                             |
| ✓ Functional block diagrams                     | ✓ MCC / PLC cabinet wiring diagram              |
| ✓ Singal exchange lists                         | ✓ Switchgear wiring diagram                     |
| ✓ I/O lists                                     | ✓ JB wiring diagram                             |
| ✓ Alarm list                                    | ✓ JB, MCC, Switchgear and control panel lay-out |
| ✓ FAT procedures                                | ✓ Loop diagrams                                 |
| ✓ Layout and cable tray routing                 |   |

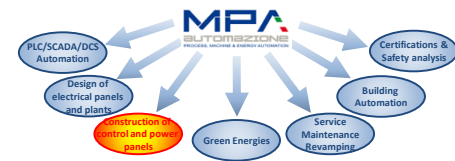


**MPA Automazione S.r.l.** Has got 700m2 of workshop to assembly control panels, power panels and rack panels for server installation, designed according to client needs and technical specifications suitable for both safe and hazardous areas (IEC-Ex o ATEX Exd, Exp).



All equipment can be installed both in safe and hazardous areas, according to the electrical standards and rule of the country of installation:

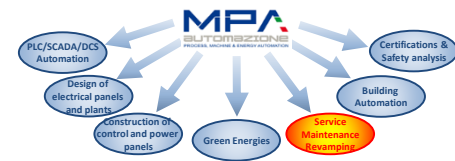
- ✓ ATEX – IECEx
- ✓ ANSI – FM – ISA – NEC – NPFA – UL
- ✓ CEC – CSA
- ✓ GOST



**MPA Automazione & Milani Giovanni** realize industrial electrical systems: the infrastructure for bringing the energy power from the delivery point to the utilization points.



- ✓ Electrical system of energy production and transformation in medium and low voltage
- ✓ Power generator system and UPS
- ✓ Distribution, automation, control and monitoring panels
- ✓ Public lighting system and urban furniture
- ✓ **Certifications to operate in Hazardous areas**  
(CEI EN 60079-17:2015, CEI 31-34:2015)



A team of highly specialized technicians able to provide the following services:

- ✓ Plant commissioning and start-up
- ✓ Remote assistance (via tele-control)
- ✓ Site assistance
- ✓ Predicted and unpredicted maintenance
- ✓ Revamping of old automation systems

Our services cover:

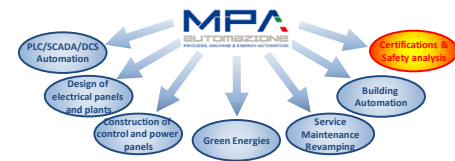
- ✓ Control and supervision systems (level 1 and 2)
- ✓ Interfaces of these systems with client IT systems.



Our **focus** is our **client**, to whom we grant **quick and reactive interventions** thanks to the **soundness** and **skills** of our organization:

- ✓ Within 8 hours for unpredicted shutdowns
- ✓ **Active 24/24h 365/365 days**
- ✓ Remote assistance (tele-control) to reduce the time and costs of the interventions
- ✓ Revamping of old systems in order to reduce maintenance and management costs, studying the schedule of the intervention in order to minimize plant shutdowns





Our staff involved in commissioning activities and got **BOSIET OPITO** and certification to work in areas with low oxygen due to the presence of **CO** and **H<sub>2</sub>S**.



We can provide safety analysis and certifications related to the electrical and electronic plant components and items:

- ✓ Hazardous area classification
- ✓ Certifications:
  - ✓ ATEX,
  - ✓ ANSI – FM – ISA – NEC – NPFA – UL
  - ✓ CEC – CSA, GOST, INMETRO
- ✓ SIL analysis:
  - ✓ Special Requirements for Safety (SRS)
  - ✓ Risk Graph
  - ✓ Levels of Protection Analysis (LOPA)
- ✓ SIS Safety Instrumented Systems (IEC 61508 e IEC 61511)

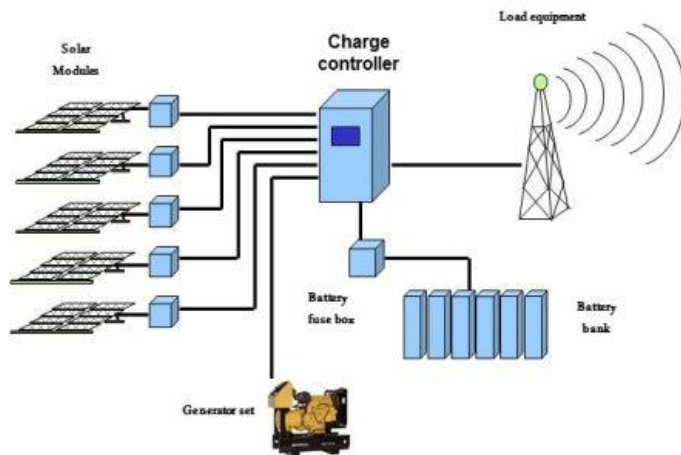




## Design of PV plants

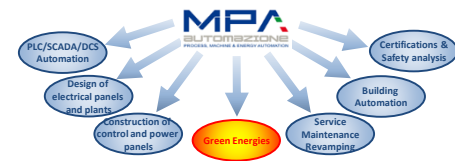
Small – medium  
dimension  
< 200kW

Big dimension  
> 200kW



## Installation

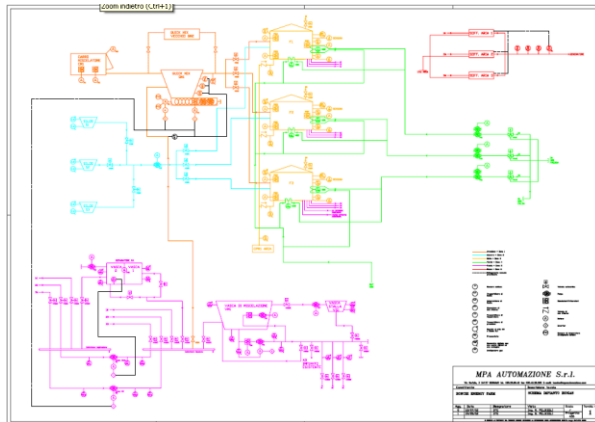
- ✓ On the ground
- ✓ Partially or totally integrated in existing or new buildings
- ✓ With battery



## MPA for Biogas a software born in the field Developed together with end-users

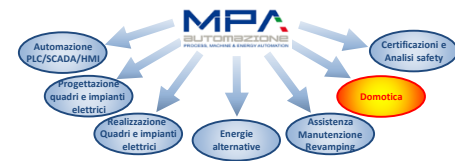
With the following targets:

- ✓ Minimizing towards zero plant shutdowns
- ✓ Reducing maintenance and plant management costs
- ✓ Simplifying user interfaces allowing the operator to control and change directly the most important plant parameters



Our services include:

- ✓ Automation software development (PLC e SCADA)
- ✓ Electrical plant planning
- ✓ Preparation of P&ID and functional specifications
- ✓ Risk analysis and area classification
- ✓ Control panel supply
- ✓ Integration of all software systems into one **unique control board**
- ✓ **SUPPLY OF THE COMPLETE PLANT (IN PARTNERSHIP)**



**MPA Automazione** and **Milani Giovanni** apply their electric and electronic competences in advance service buildings for the implementation of **BUILDING AUTOMATION** systems, managing:

- ✓ Technological plants (climatization, water distribution, gas and energy, anti-intrusion systems, F&G)
- ✓ IT networks
- ✓ Communication networks

Improving:

- ✓ Building management
- ✓ Comfort
- ✓ Safety
- ✓ Energy saving
- ✓ Maintenance management

Granting:

- ✓ Access traceability in compliance with **FDA CFR21**
- ✓ Integrated maintenance software.
- ✓ Simple and intuitive HMI.

