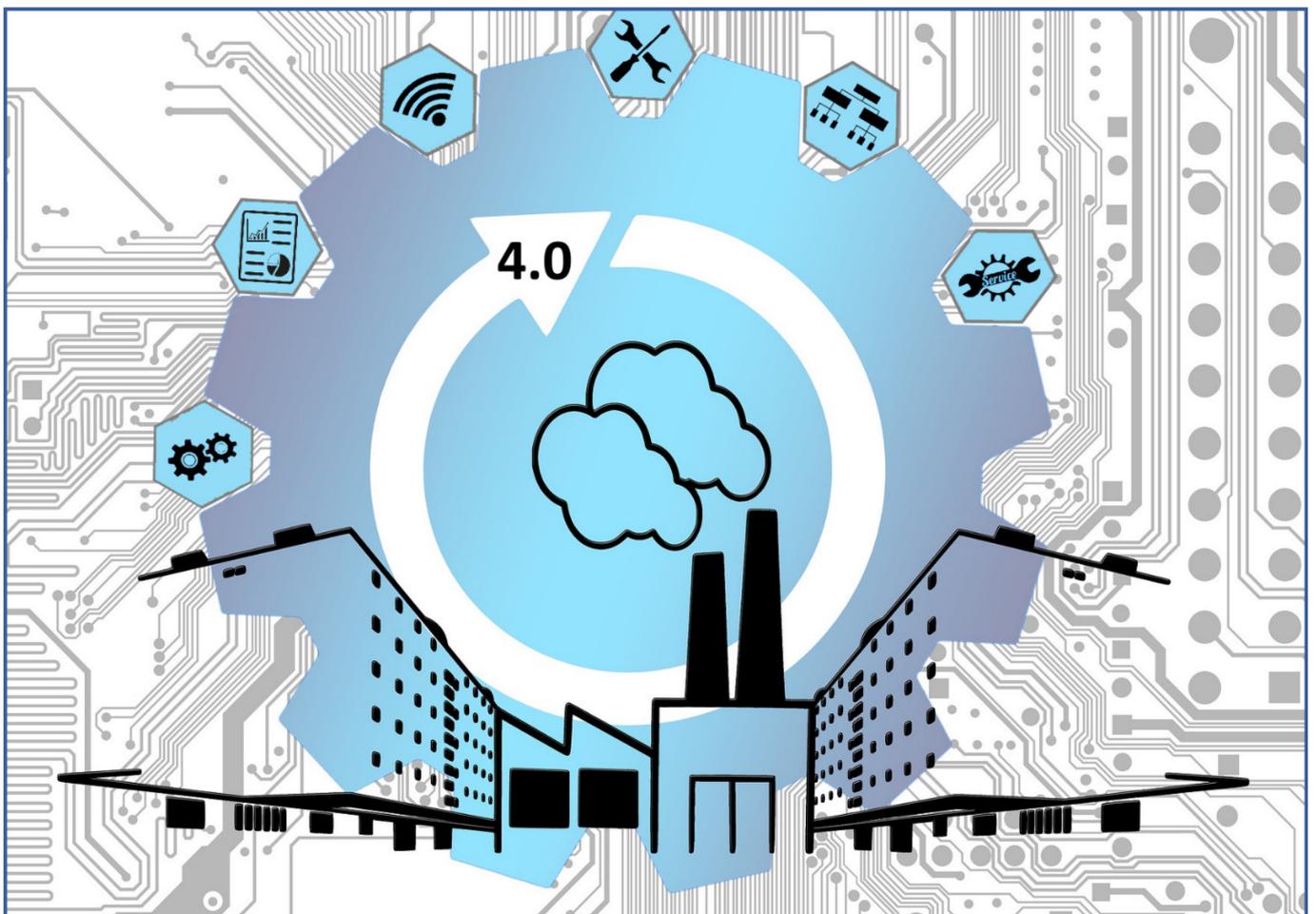




PRESENTS:

**REVAMPING AND PROCESS CONTROL
FOR CERAMIC TILES SECTOR**



1.1 THE REVAMPING

The experience gained during the last years has allowed Euroelettra to specialize itself on the plant revamping: the continuous evolution of electrical technologies encourages the proposal of the newest solutions for the regeneration of obsolete plants, with the guarantee of better performance, economical savings, shorter production time, flexibility.

Our turnkey control systems interact on the net through computerized stations that satisfy the most ambitious production need.

From raw materials to the presses, passing through mixture preparation, slip coloration, powder mixing and dosing, the optimization of the productive cycle takes on primary importance: Euroelettra offers complete solutions for renewal and management of batches and productions changes, for waste reduction, for diagnostics, alarm systems and maintenance.

Revamping activities produce a sequence of advantages:



BEFORE

- » **Obsolete technology**
- » **High energy costs**
- » **Manual processes**
- » **Excess production**
- » **Lacking monitoring**
- » **Unexpected problems**
- » **Separated areas/plants**



AFTER

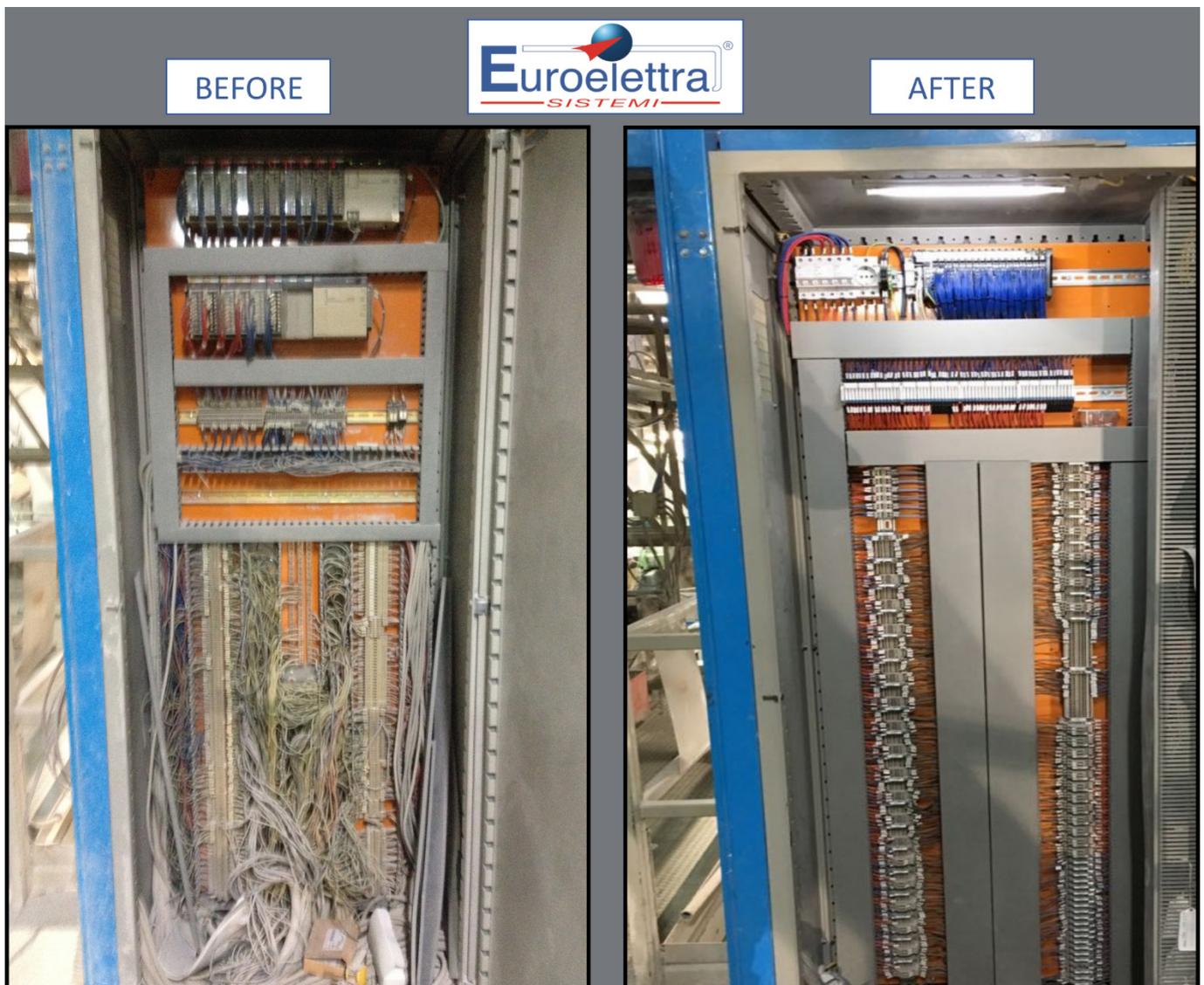
- » **Last generation technologies**
- » **Energy savings**
- » **Process automation**
- » **Production optimization**
- » **Continuous monitoring**
- » **Programmed diagnostic and maintenance**
- » **Plant interconnection**

Euroelettra proposes newest solutions for the regeneration of obsolete plants optimizing the productive process through:

- Modification/supply of command and control electrical boards with BAT components
- New PLC management and PC supervision software
- Installation/modifications of plants on site
- Commissioning and after sale

We also develop Reverse Engineering activities, asset management software, sensors management, local systems integrated and net connected supervision.

ELECTRICAL BOARD REVAMPING EXAMPLE:



**ELECTRICAL BOARD REVAMPING EXAMPLE:
OUTSIDE / INSIDE:**

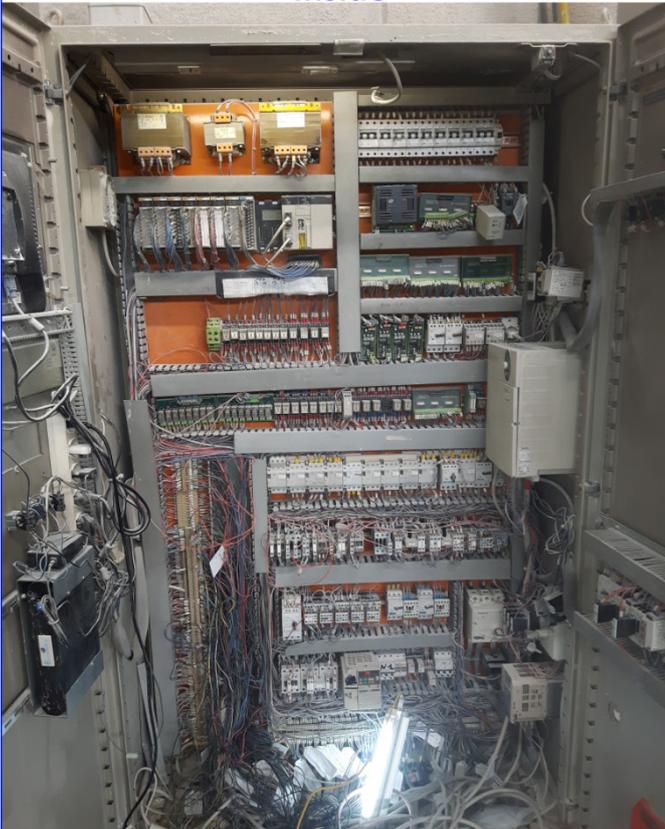
BEFORE
Outside



AFTER
Outside



Inside



Inside



1.2 THE PROCESS CONTROL

After the revamping phase, we pay particular attention to the process control.

The new control room concept allows supplying a complete visibility of the whole process to the operators; these systems communicate with existing factory management software for the programming of the production.

The importance of new and functional control room allows:

- Better productive performance
- Continuous productive cycle monitoring
- Efficient remote assistance on the whole plant
- Plants interconnection and data exchange

CONTROL ROOM REVAMPING EXAMPLE:

CONTROL ROOM - BEFORE



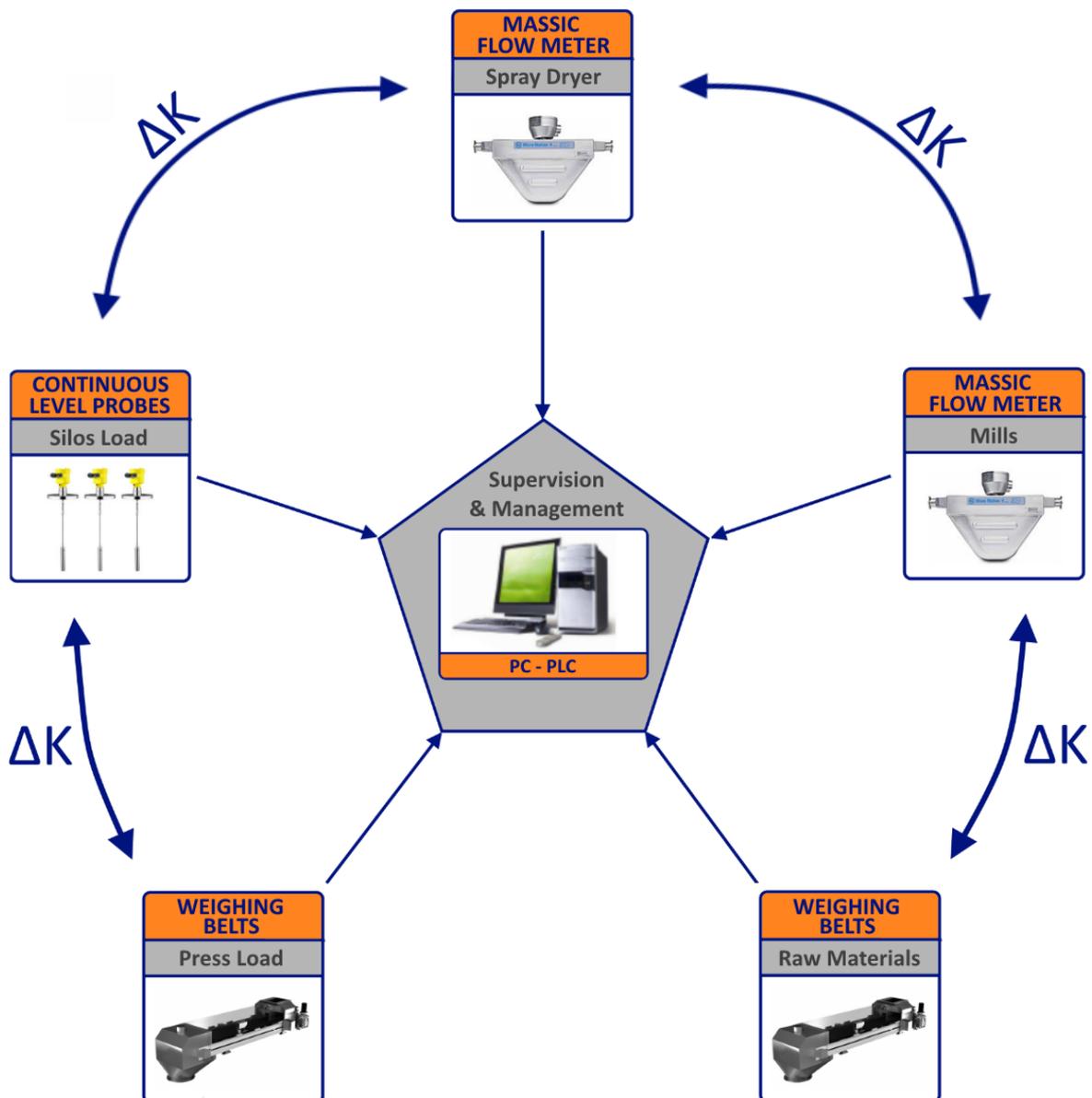
CONTROL ROOM - AFTER



The reporting system was born after several years of experiences and tests on site, in order to check and control incongruities between INPUT and OUTPUT that produce a non-efficient management of the available resources.

Euroelettra Sistemi offers tools for continual monitoring and reporting of all the phases of the productive cycle from raw materials to presses, providing real data available for the production system and for the management of the factory.

Monitoring and reporting are realized with the most modern technological instruments, installed in the different working areas and Ethernet connected. Looking at the ΔK value, the operator can observe the materials' differences between two phases and he can verify them in details using reports.



In the following scheme, we highlighted the work areas controlled by Euroelettra for which we can plan both the revamping and the new turnkey supply with automation, management and supervision. The remote assistance service completes the offer.

