abmicro

INDUSTRY 4.0

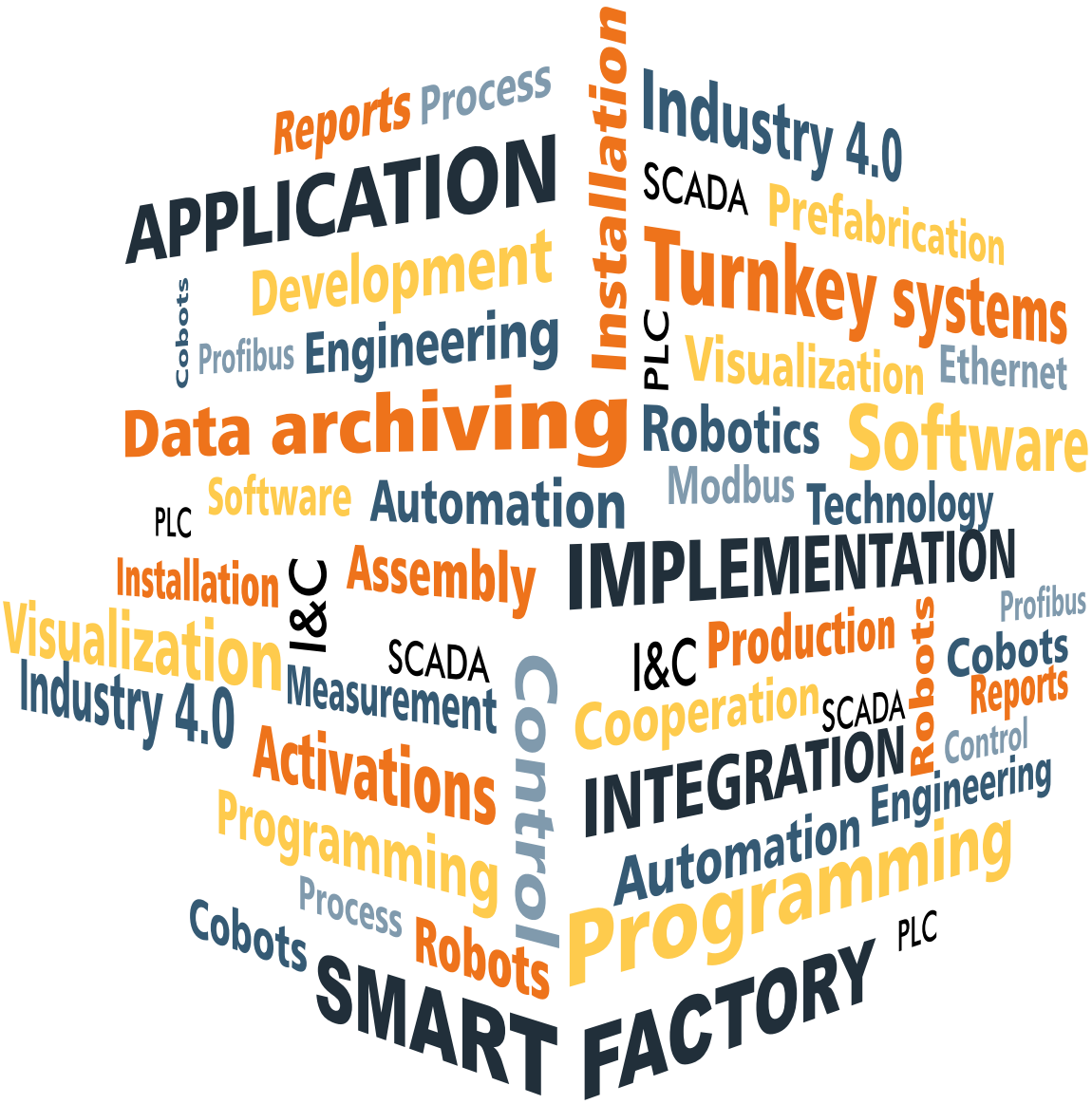
INTEGRATION
IMPLEMENTATIONS
APPLICATIONS

AB-MICRO, Automation Systems' Integrator

AB-Micro Sp. z o.o. engages in implementations, integration of automation and robotics industrial systems as well as the construction of industrial process control systems since 1995. The Industrial Applications Implementation Department within the AB-Micro structure is dedicated to this type of work.

We are pleased to present tailor-made services and solutions for our customers based on the software and devices offered by worldwide-known manufacturers. Applications delivered by AB-Micro cover many levels of advancement, from simple tasks related to the measurement, transmission, and visualization of data through the production process control and technology solutions that meet the concept of Industry 4.0.

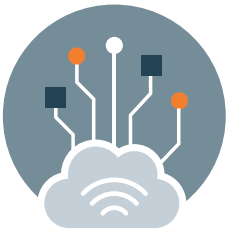
An Industry 4.0 term can be understood as many solutions that allow us to quickly convert physical magnitudes into digital form and then, by using reliable wired networks or wireless transmission, make data available to control systems or computer applications.



BUILD WITH US **INDUSTRY 4.0**

AUTOMATION, ROBOTICS

Process and machine PLC controllers, tasking execution through collaborative robots, increasing efficiency and lowering production costs. The data processing and exchange, collecting useful information, and sending appropriate commands directly to the machine level!



DATA TRANSMISSION, IIoT NETWORKS

Various sensors, measuring equipment, actuators with the digital data exchange interface. The Industrial networks and communication interfaces, data exchange capability among almost any device. Signal concentrators and protocol translators open up new access possibilities to the data you need at the moment!

SCADA/HMI MASTER CONTROL

Process supervision, parameterization, schedules and recipes. High-class HMI devices and SCADA master layer software with dedicated applications. OEE and KPI, attractive and practical visual setting of the user interface, facilitating human-machine cooperation!

DATA ARCHIVING

Improving production efficiency and quality, product tracking, analysis of post-production data, development and modification of the necessary procedures. Detailed data repository archives available for the optimization of production work and technology are the basic source of information necessary for the functioning of MES and ERP systems!

How do we work?

Getting familiar with the issue **ANALYSIS**

The first and most important stage of our work is to familiarize ourselves with the needs and the process that is to be automated. Gathering detailed information during this stage is essential to start the work related to the development of the automation system concept with its most important elements. The system must have what is necessary for effective and optimal functioning. We avoid unnecessary complications, which often result in additional costs and inconvenience of system usage.

Cooperation with the Customer **COOPERATION**

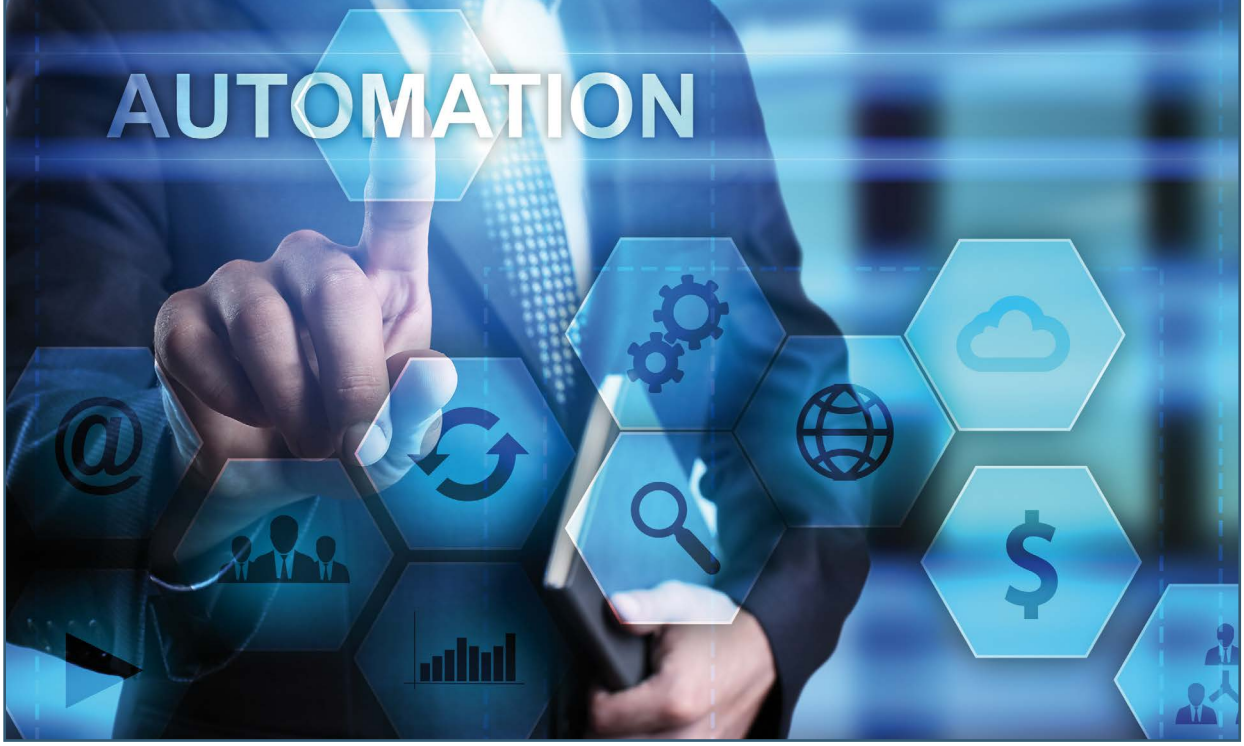
An indispensable element of our activity is cooperation with the Customer who defines his needs, performance requirements and standards to be followed during the work. The direct exchange of information between the Customer and the Contractor concerning expectations and the possibility of their implementation is the success key while implementing industrial automation applications, resulting in long-term operating and a failure-free usage period of the implemented solution.

Implementing only safe applications **SAFETY**

The basic issue of the machine's automation and construction of robotic cells is to ensure safe operation and maintenance. This security includes the physical parts as well as the software application. As an additional part of an adaptation of standards and directives, we make arrangements with people responsible for the security policy on the Customer site.

Our work brings the following **BENEFITS**

The employees are the most valuable component of any enterprise. Their effectiveness of work influences the quality of the products, efficiency, and productivity. We provide the solutions which support employees with their tasks that affect the product quality, easier operation and control of the production process, tracking events and reacting to emergencies, analysis of operating parameters, and the optimal use of resources.



What do we offer?

SCOPE Automatics, electrics, mechanics, measurements, control

Depending on the type of needs identified on the task recognition level, we offer a design and manufacture of the automation systems, including mechanical and electrical parts, measurement, and control. We also operate in the field of industrial robotics, collaborative robots (cobots) of various manufacturers, that work as independent devices, cooperate with people and machines, or integrated into robotic production cells.

SPECIFICATION We select, assembly, program, and launch

The specification of the supplied hardware and software is made in agreement with the Customer. We offer high-quality hardware and software, tested by us in many installations. We program, install and launch the parts of the system delivered by the customer or by our suppliers. Our services include complete systems, starting from the scratch development, production of mechanical parts and electrics to programming and launching of the control part.

VALIDATION Tests, approval, training

We conduct FAT and SAT phases. Depending on the scope of activities and possibilities, we offer factory tests (FAT) of the individual components of installation at the Contractor or Customer site. After completing the assembly and launching the installation, we make acceptance tests (SAT). We issue a CE compliance certificate for the applications implemented.

TECHNICAL SUPPORT Post-implementation services, warranties and service

We provide a manufacturer's warranty to the applications implemented by us. Fulfillment of additional needs and development of the application we effect as part of post-implementation services. We also offer a post-warranty service to maintain the appropriate technical condition of the implemented applications.

Scope of the offer

PLC, SCADA programming works, development of algorithms

Currently, the bases of automation solutions are PLC and HMI/SCADA master applications. We offer the development of control algorithms, services related to programming PLC controllers, HMI operator panels and SCADA applications, launch and validation of the developed systems.

Electrical works, selection, and delivery of I&C, prefabrication, and assembly of control cabinets

We offer the assembly of I&C materials selected following the requirements of implemented applications. We install and deliver control cabinets made based on our own or delivered as a part of commissioned projects. We also work with the use of entrusted materials.

Development of dedicated mechanical components

We implement projects that require the development of mechanical systems equipped with I&C and control systems. We offer solutions suitable for a variety of work environments. We use construction components available on the market, but also made especially for application.

Robotics, human-robot direct cooperation

A dynamic developing branch of automation, which is the technology of collaborative robots, called cobots, found a place in our offer as a service of implementation. Cobots are designed to support human work with repetitive activities for a relatively long period. With the support of cobots, you can easily automate many activities using the basic safety of the work area. This is possible thanks to the use of built-in arms robotic safety systems. Cobots' Integration with classic automation systems and equipping them with modern vision and I&C systems allows the implementation within a wide range of tasks.

AB-MICRO is a reliable supplier with certified
ISO 9001:2015 Quality Management System

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