

## Smart Factory

# How To Easily Make Production More Efficient

**Digitization and networking offer great opportunities for the process industry. The necessary technologies are already available: cloud solutions, software, and approaches for adaptable production help companies to chart a course for their manufacturing systems that leads to increased efficiency and output.**

In order to exploit the opportunities offered by digitalization, each company must do its homework. The challenges are just as varied and diverse as the companies themselves. There is no such thing as an all-in-one solution; however, there are smart products, methods and partners that can help to promote digitization in companies in a way that benefits all involved.

### **The Cloud – The Link between the Real and the Digital Worlds**

Cloud solutions have become popular industry staples. They function as links between the real and digital worlds, enable the efficient use of production-relevant data, and simplify the cross-site networking of global communication structures within companies. This creates many new opportunities for the manufacturing industry – especially with an eye to plant availability and process optimization.

### **Cyber Security – Secure Encryption for Machine Data**

Ongoing digitization requires constant availability of data at various locations. Therefore, machine data must be encrypted. The path of the data from the controller to an external encryption component, like a router or firewall, can, however, be exposed to the risk of undesired data access. Modern controllers, like WAGO's PFC100 and PFC200 Controllers, encrypt information directly in the controller and subsequently transmit the data to the cloud via IPsec or OpenVPN. This ensures machine data is optimally protected against unauthorized access.

### **Manufacturer-Independent Solutions for Automation**

With DIMA, WAGO has developed a new, manufacturer-independent solution for automating adaptable production facilities. DIMA helps modify production systems within a short time. DIMA thus combines the advantages of modular production facilities with Industry 4.0 approaches that are currently under discussion

### **Data, Software Tools and Interfaces**

Smart Data is a name for data bases that have been extracted from large amounts of data and contain meaningful information for planning and operating process systems. With **smartDATA**, WAGO offers customers the continuous data flow, software tools and interfaces that they need alongside their process chain. These processes can include electrical and

mechanical planning, as well as the ordering and production of configured or individual products.

### **More Information for Better Decisions**

The new transparency: Smart sensor-actuator integration allows companies to build or expand an automation architecture that collects production-relevant data. Valuable information can be acquired from signals and data that help companies to optimally utilize, monitor, and further develop their systems. In addition, WAGO offers around 500 modules in the comprehensive WAGO-I/O-SYSTEM, which is also certified for use in extreme conditions.

By using the cloud, value-added chains can be configured to extend continuously and be efficiently utilized beyond the boundaries of individual systems and facilities. In addition, the locations of trucks and ships can be tracked via the cloud in order to economically coordinate capacities, routes, and deadlines.