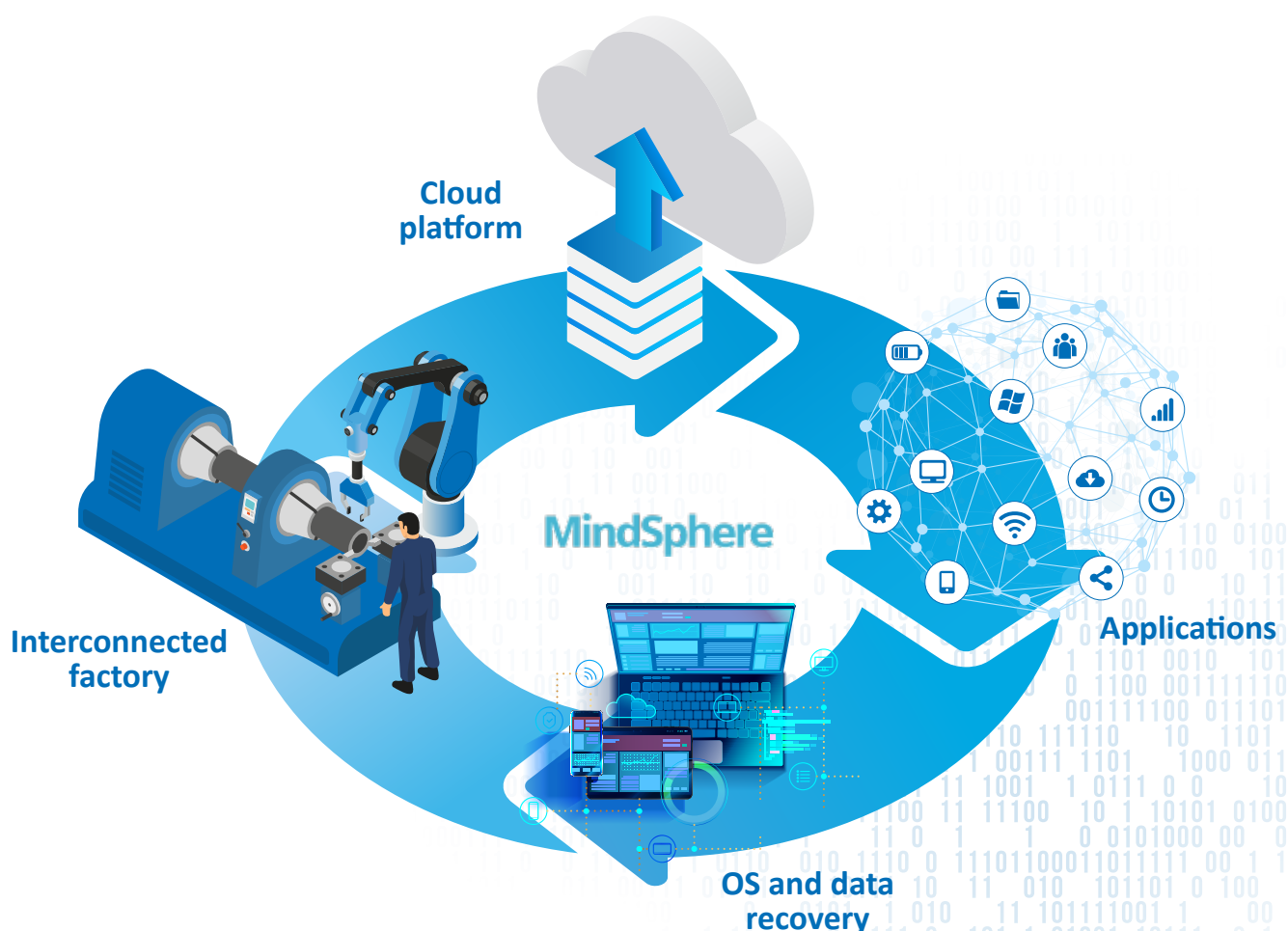# MOLECOR 4.0

Smart water

Molecor, world leader in the development of **Molecular Orientation** technology applied to the conveyance of water under pressure, always at the forefront of new technologies, is implementing a system that will allow the company to optimize and reduce production times, increase flexibility as well as optimize the consumption of energy and other resources in all the Oriented PVC pipe production lines that the company has installed all around the world. In this way, in addition to **optimizing all production processes** through advanced data analysis, **Molecor** also promotes **operational transparency**. All this will be possible thanks to the **MindSphere operating system**, developed by **Siemens** and based on The Cloud.

This system facilitates, through the **programming** of specific agents, using powerful industrial **applications** and managing advanced **analytics**, the system **connectivity** and data **transmission** in a safe and efficient way, achieving a significant improvement in productivity and efficiency the different manufacturing lines.
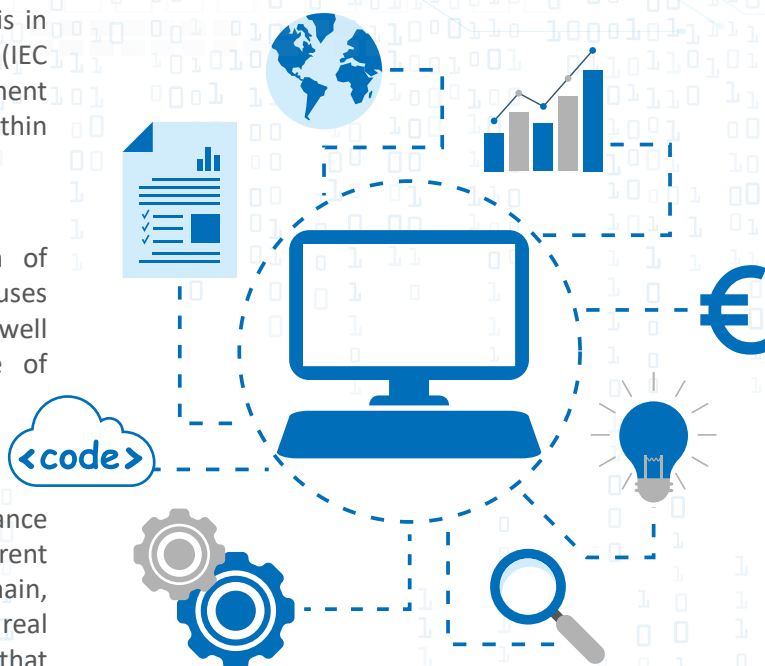
MindSphere securely connects the multiple systems of the production plant, including Enterprise Resource Planning (**ERP**), Manufacturing Execution Systems (**MES**) and data acquisition and monitoring systems (**SCADA**), as well as those in the **cloud** providing the highest **security** during data collection, transmission, analysis and storage.

Cloud platform

MindSphere

Interconnected factory

Applications

OS and data recovery

SIEMENS

MOLECOR 4.0
Smart water

The security framework on which it is based is in line with the different industry standards (IEC 62443, ISO 27001) as well as with government recommendations regarding the use of data within the cloud.

Through the configuration and visualization of critical **monitoring variables**, **Mindsphere** uses detailed information on current operations, as well as **productivity history**, with the objective of reducing costs and optimizing production.

Thanks to this automatic collection of performance data and to the visualization of the different connected elements of the manufacturing chain, Molecor will monitor the status of its lines in real time while avoiding possible point problems that may arise, additional costs, etc. which encourages **predictive and preventive learning and maintenance**, exponentially increasing production optimization.

This important improvement of the production processes, which allows the digitalization of the different operations **optimization of the value chain**, is a key differentiator that will allow **Molecor** to become an even more competitive entity.

PREDICTIVE MAINTENANCE
Predictive learning and maintenance to optimize production

CONNECTION
Multiple resource connection: ERP, MES, SCADA

CLOUD PROGRAMMING
Programming of specific agents and use of industrial applications

SYSTEMS INTEGRATION
Interconnection of the different elements that are part of the production process

AUTOMATION
Automatically collection of historical and current data