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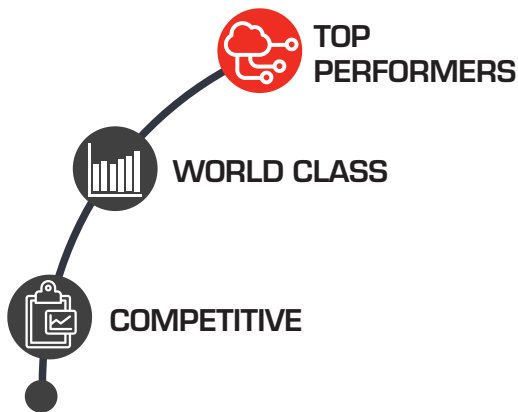
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Automotive
Smart
Factory

The Automotive Smart Factory (ASF) is a competence center specialized in advanced manufacturing providing integral services for the implementation of industry 4.0

AN INTEGRAL APPROACH

Advanced Manufacturing supported by strong digitization and 4.0 technologies are key to transforming current competitive industrial companies into Top Performers. This need becomes even more important with new market demands that are defining the vehicle of the future. To reach this position, companies need to develop an individual strategic plan with an integral approach and efficiently evaluate the scope of the implications, with quick deployment of the strategy and rapid investment returns. The main focus of the ASF is to assist the industry throughout the entire process of transformation.



The ASF is a Competence Center specialized in advanced manufacturing, providing integral services for the implementation of Industry 4.0. The ASF addresses advanced manufacturing challenges in an integrated way, developing ad-hoc manufacturing strategies for the industry, assessing the impact of implementing these strategies, providing specific or turn-key engineering services and advanced manufacturing training programs.

Advanced Manufacturing Strategy

Ad-hoc roadmap definition of Advanced Manufacturing strategies.

Specific Advanced Services

Services for modelling, performance simulation, Big Data, Smart Interactions, Smart Cells etc.



Turn-key Advanced Engineering Services

Integral engineering services, from strategy definition to implementation.

Technological Training

Development of technological capabilities through Experiential Learning.

PHYSICAL & VIRTUAL FOCUS

The ASF has a combination of physical and virtual capabilities which makes it ideal for analyzing the benefits of these technological advances. In addition, it can be used for top research projects, first-in-class engineering services and as a workspace to train people at several levels.

The physical workspace includes cutting edge equipment, such as a stamping servo-press, an arc-welding cell and different control and in-line verification systems. It is also equipped with an AGV (Automated Guided Vehicle) to provide advanced flexibility in the handling process. The virtual workspace consists of a Smart System that manages the manufacturing process with an integral approach, and triggers real-time modifications of process parameters.



PHYSICAL + VIRTUAL

Specific technological topics that are physically tackled in the ASF include data mining, equipment and process monitoring, assets smart management, machine to machine communication, process simulation and control systems, digital quality management, human-machine interactions and new manufacturing training methods. All these form the foundation of the factory of the future which seeks zero defect manufacturing and zero breakdowns, key to improving industrial competitiveness. To embrace these subjects the ASF relies on three main functions:

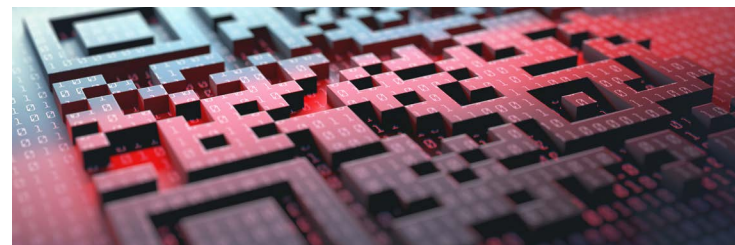
1 Manufacturing Intelligence

- Advanced multi-variable modeling (big data).
- Minimum variability in process.
- Flexible in-line inspection systems.
- Real-time deviation identification.
- Simulation and optimization.
- Advanced knowledge generation.



2 Track & Trace

- Each part product and process data registration and analysis.
- Physical and logical part identification.
- Real-time modification of part-based process parameters.



3 Digital

- Integrated plant level management system.
- Automatic and real-time monitoring.
- Equipment advanced interconnectivity (IoT) for a proactive management.
- Visual factory for quick decision making process.





A HIGHLY PROFESSIONAL TEAM

ASF is an alliance of AIC-Automotive Intelligence Center and Sisteplant engineering to offer advanced services to automotive companies that want to address the challenges of manufacturing 4.0 with total reliability. The combination of innovative capacity, proven experience in all types of automotive processes, and cutting edge virtual and physical equipments make ASF the most ideal option for any organization that wants to enter the digital factory. For this, both organizations put at the service of their clients more than 100 professionals in areas such as strategy, digitalization, simulation, implementation or training.

AIC-AUTOMOTIVE INTELLIGENCE CENTER

AIC is a European center generating value for the automotive industry. It is based on the concept of open innovation where companies improve competitiveness through cooperation. Clearly market-oriented, it integrates knowledge, training, technology and industrial development under one umbrella.

SISTEPLANT

Sisteplant is an engineering company devoted to actively help automotive industry to tackle advanced manufacturing and industry 4.0 challenges, by deploying innovative organization, process knowledge, engineering and manufacturing intelligence solutions and techniques.



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