Automotive supplier HELLA addresses changes in the industry with MES solution

Electronics

Case Study

Automotive supplier HELLA addresses changes in the industry with MES solution

E-mobility, autonomous driving, shared mobility and connectivity – these and other developments are currently changing the automotive industry like never before. As requirements continue to grow, the level of digitalization in factories is also increasing. At the same time, specific requirements such as certifications and individual customer needs must be met. In order to keep pace with the high speed of change and innovation, the automotive supplier HELLA relies on transparency and digitalization on the production shop floor. The Manufacturing Execution System (MES) from iTAC is used in all 34 production plants to support this.

→ **FORVIA: Seventh largest automotive supplier worldwide**

About HELLA

HELLA is a listed, international automotive supplier that operates together with Faurecia under the umbrella brand FORVIA. With more than 150,000 employees at over 300 locations, FORVIA is the seventh largest automotive supplier worldwide. Quality and progress are the overriding objectives throughout HELLA's value chain.

The company achieves these with a business strategy that focuses on efficient, transparent and high-quality processes. The aim is to meet all standards and guidelines as well as the new requirements for digitalized processes.

300
Locations

42
Countries

150.000
Employees

8.000
iTAC users

11.000
Connected machines

FORVIA
HELLA

Manufacturing Execution System

The iTAC.MES.Suite provides technical support for these tasks. iTAC Software AG supports companies in the automation of business processes and the digitalization tasks of the future. Supported by a Manufacturing Execution System, factories can complete the digital transformation in their production and meet the future requirements for an end-to-end digital process chain. The MES monitors the entire production process up to the end-to-end integration of material logistics and the so-called business level.

HELLA has been a user of iTAC's software for many years. Prior to that, the company used individual solutions with varying results and outputs.

As iTAC is continuously developing its MES, new potential is emerging in terms of real-time communication, handling big data and much more, in addition to the important traceability.

„As the level of automation in our industry increases, so do the challenges. iTAC's software is therefore an essential element in our modern production. It enables the connection of the entire shop floor and creates networking and transparency across the entire value chain."

Process optimization throughout the supply chain

The Manufacturing Execution System offers HELLA various functionalities for optimizing processes and quality in production and logistics. In addition to traceability, these include a production planning tool (APS), quality management module (QM) and continuous replenishment process module (CRP) for continuous material supply.

The MES takes over the necessary master and transaction data from the ERP and processes it into a production process that follows specifications,

including plant management, process interlocking, process monitoring, dashboarding, and business intelligence throughout the entire value-added process.

The area of application covers all 34 HELLA production plants. This also includes the Electronics business group. The MES works with more than 11,000 connected individual machines, which communicate with the system in almost real time and provide the data basis for further applications. Nearly 8,000 users are in the system. HELLA's internationality is supported by the fact that the software is available to employees in English, Chinese, Spanish and Portuguese.

The MES covers the entire manufacturing spectrum at HELLA: from headlights to complex electronic systems. Production areas with different requirements are integrated, such as plastic injection molding, assembly, electronics production and control of automated interlinked systems or lines up to final assembly, quality inspection as well as shipping and dispatch.
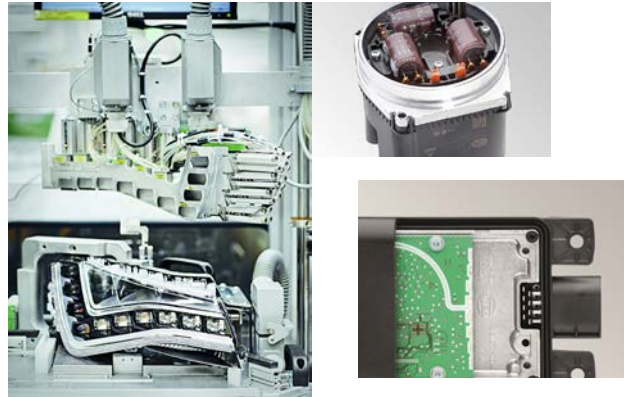
→ Enabler for digitalized and changing manufacturing

Thanks to the system's modular design, HELLA can always adapt the solution to current requirements. This is essential for companies in the automotive industry, as they are undergoing major changes – also associated with continuous new strict regulations.

With the help of the standardized functions and open API interfaces, the iTAC.MES.Suite can be very easily expanded independently and, for example, linked to proprietary solutions. The use of the MES solution on the entire shop floor and functions such as business intelligence provide HELLA with the basis for optimizing processes thanks to the available data.

„We benefit from numerous savings and optimizations and at the same time are able to drive forward the digitalization of our manufacturing processes. By visualizing the entire shop floor via dashboard systems, we always have an overview of the entire process and can act or react quickly if necessary. A business intelligence system on the operational shop floor right up to the management level ensures transparency and enables systematic analysis of data. The resulting KPIs give us valuable insights into sources of error and optimization potential, for example.“

E-Mobility

Smart Manufacturing

Outlook into the digital future

HELLA plans to expand the MES/MOM solution as necessary and evaluates the function of iTAC.IIoT. Edge. This is a data integration platform based on an edge solution for the standardization and centralization of data in production. Among other things, it can also be used to create AI models, thus providing the basis for self-learning processes.

„We also plan to further advance predictive maintenance. The goals are real-time monitoring, diagnostics, predictive and prescriptive analysis to avoid unplanned downtime and maximize plant efficiency. Based on the collected MES data, holistic data analytics and predictive maintenance scenarios can be implemented. These are important requirements for the modern digitalized factory of the future."

iTAC SOFTWARE

iTAC Software AG, an independent company of the mechanical and plant engineering group Dürr, provides Internet-enabled information and communication technologies for the manufacturing industry.

Founded in 1998, the company is one of the leading MES/MOM providers in Germany.

The iTAC.MOM.Suite is a holistic Manufacturing Operations Management that is used worldwide by companies in different industry sectors such as automotive, electronics/EMS, telecommunication, medical engineering, metal casting and energy. Additional services and solutions for implementing IIoT and Industry 4.0 requirements complete the portfolio.

iTAC Software AG is headquartered in Montabaur, Germany and has subsidiaries and a partner network for sales and service worldwide.

Our philosophy is to connect people, data and systems.

iTAC Software AG
Aubachstr. 24
56410 Montabaur
Germany

Phone: +49 2602 1065 0
E-Mail: info@itacsoftware.com

www.itacsoftware.com

DÜRR GROUP