



# Success Story

## SMART FACTORY INJECTION MOLDING PLANT



**HIRSCHMANN  
AUTOMOTIVE**

### Client

Hirschmann Automotive GmbH  
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### Partner



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Project Manager Jody Forster  
Hirschmann Automotive GmbH

„The challenge was to design the interaction between production machines, warehouse technology and the IT systems and interfaces in a process-safe manner. Thanks to the solution competence of scc and ABF, we were able to successfully implement the demanding goals on time.“

### [!] INITIAL SITUATION

- ▶ Expansion of the group's internal SAP MES landscape to include the Vsetin site (Czech Republic). Connection of the store floor and integration with their new intralogistics system (automated small parts warehouse from Co. Servus).

### [👤] CHALLENGE

- ▶ The connection and process automation of injection molding machines via the MES landscape up to the integration of an autonomous storage system incl. real-time status information of the production.

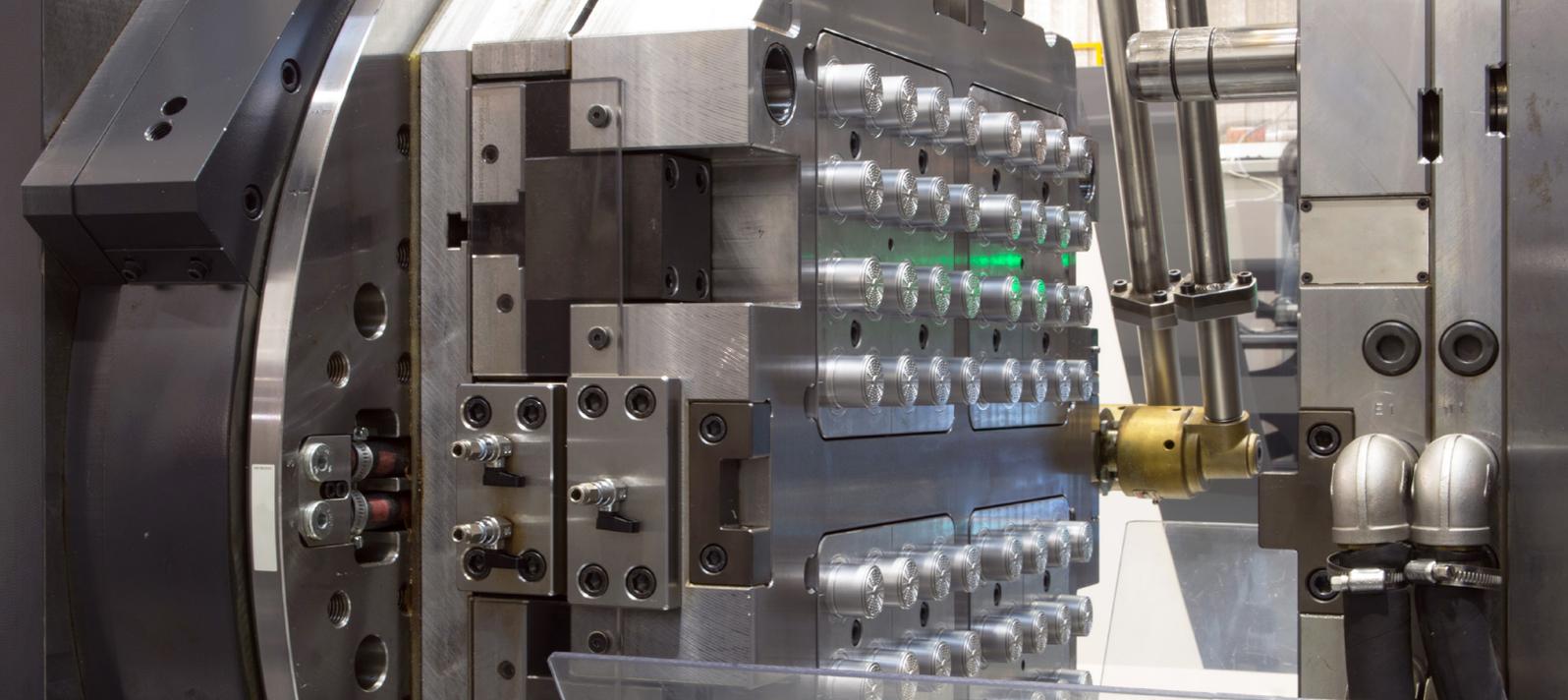
### [💡] SOLUTION

- ▶ Integration of a fully automated logistics system with connected transfer units and end-to-end SAP ECC integration (via SAP ME/MII and PCo) as well as implementation of a real-time visualization of the current production status (Andon board).

### [+] BENEFIT

- ▶ Construction of one of the most advanced injection molding plants in Europe, with fully integrated and automated material flow





MES & FLS



Control Engineering

## SMART FACTORY INJECTION MOLDING PLANT

**A**s part of the digitalization initiative at our customer Hirschmann Automotive GmbH, a rollout for the Vsetin site (Czech Republic) was due after 2 years. The site expansion in connection with the tool and special machine construction as well as the production and storage area was used to also adapt the current SAP MES solution to the local requirements and to roll it out for the site. The number of injection molding machines was increased from 60 to 95 machines.

For improved efficiency and increased flexibility as well as process reliability Hirschmann Automotive relies on a fully automatic shuttle system with a connected automatic small parts warehouse. This was fully integrated into the system landscape with the help of ABF in cooperation with its partner scc. Among other things, this means that all production-relevant information is visualized or reported in SAP Manufacturing Execution (SAP-ME) or SAP ERP Central Component (SAP ECC) with minimal operational intervention.

Our first task was machine integration. In order to define a standard interface based on Euromap77, close cooperation with the machi-

ne suppliers was required. The main focus was on the seamless interaction between the injection molding machine, the assembled transfer unit and the MES landscape. The latest industry standards of OPC-UA and SAP Plant Connectivity (SAP-PCo) were used.

Furthermore, a visualization of the current production status in the entire new plant area was required for the machine operators and key users. The focus was on an unaltered, up-to-date display of the production values. We relied on an implementation in the latest SAP development toolkit and a bidirectional communication via websocket protocol. This ensured a just-in-time update of the production status at the exact moment of a change.

The measures of the digitization initiative enable production processes to be controlled more effectively and efficiently, and the availability of real-time production data brings maximum transparency to all production processes. We can be proud of having made our contribution to making Hirschmann Automotive Vsetin one of the world's most advanced injection molding plant locations.

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