



REHAU AG + Co Selection of a ME-system for Rehau AG + CO

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> *As a direct supplier for the automotive industry, REHAU faces very complex challenges. Thanks to the support of the FIR, we have succeeded in selecting a complexity-reducing and sustainable ME system..* <

Helmut Ansorge, member of the Automotive Executive Board of REHAU

Initial situation

The REHAU Group is a family-owned, internationally active plastics processor with roots in Germany and about 20 000 employees. REHAU is subdivided into the five divisions Automotive, Building and Infrastructure Solutions, Furniture Solutions, Window Solutions and Industrial Solutions.

The project was carried out at the German subsidiary REHAU AG & Co in the Automotive Division. The product portfolio includes high-end solutions in the areas of bumper-, exterior-, air- and water- as well as sealing-systems, whereby the scope of the project was laid on the production of bumper systems.

The existing system landscape in the division is largely based on legacy applications. Historically grown and not justified in terms of content, the systems are built on different technological plat-

forms, programming languages and data structures. Whereas the individual applications are interdependent, they are becoming less and less adapted to new requirements.

Decentralised systems are adapted to individual local requirements, which is reflected in differing system and process characteristics for each production site. The existing system structure therefore limited further development opportunities, in particular with regard to the constantly increasing customer requirements. At the same time, REHAU is facing the challenge of individual series production of batch size 1 in context of its "Industry 4.0" or "Smart Factory"-activities. The strategic guideline „structure follows process“ for the MES selection process was derived from these considerations.



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REHAU AG + Co

Industry Sector: Polymer Processing

Products: Polymers

Turnover: 3,4 Mrd. Euro

Personnel: ca. 20 000 (2015)

Locations: Administrative Centre in Muri close to Bern, Switzerland; Administration Sites in Rehau and Erlangen-Eltersdorf, Germany; sales offices, plants, Administration and logistic centres in Germany, France, Mexico, Austria, Spain, South Africa, Czech Republic, Hungary and the United States

Key aspects

The focus of the project was the selection of a Manufacturing Execution system to help restructure the process organization to reduce complexity in the production and assembly departments of the REHAU Automotive division across all production sites.

Long-term safeguarding and future expansion of the competitiveness of the company as well as the exploitation of numerous potentials of a „Smart Factory“ or „Industry 4.0“ were the main initiators to exchange the existing, individual REHAU system landscape for a sustainable, integrated MES solution. Especially concerning these goals, REHAU was looking for a system or a system partner, which or who is able to meet the highly innovative objectives. Within the system landscape, there are large differences in the extent of relevant (Sub-) processes, which are not essentially based on existing industry standards.

The objective here was a harmonisation and standardization of processes. This also included different defined process characteristics, to be able to fulfil various frameworks. At the same time, it had to be ensured that a realignment to prevailing industry standards would not lead to a loss of knowledge. Processes that generate clear benefit must also be preserved in a new MES solution.

Approach and results

For a successful selection of a ME system the **FIR 3PhasenKonzept** for a process oriented analysis, selection and implementation of IT-Systems has been applied.

In a first strategy workshop to define the overarching project goals with the entire steering committee of the selection project, strategic guidelines were laid down. This was followed by a comprehensive process and IT analysis based on intensive workshops in various production plants as well as in an assembly and logistics centre. Among other things, these served as a basis for identifying improvement potentials. In the next step, a future, standardized process culture including a corresponding IT support was designed on the basis of the previous analysis.

In the second phase of the selection process, a specification sheet was drawn up on the basis of VDI 5600 (a German guideline for ME systems) to define the company-wide MES requirements. On this base a market analysis was carried out to narrow down potential system providers. Afterwards five providers were invited to give on-site presentations by clearly defined criteria/system schedules out of which REHAU employees selected one after evaluating the results.

With this comprehensive insights and knowledge, REHAU was able to select the suitable MES provider for itself. The support of the contract negotiations with the selected MES provider formed the successful conclusion of the selection process.