

OPTIMIZED DATE AND RESOURCE PLANNING

The development, manufacturing, and world-wide distribution of high-pressure plants calls for solid project management. To improve and standardize planning processes, Uhde High Pressure Technologies (UHPT) was searching for a new project management solution. » BY KATJA KUNIG AND DENNIS TOMATH

To be able to better plan and control projects in customer-specific plant production, research, and development as well as service projects, UHPT was looking for a software system which supports the entire process of planning, development, manufacturing, and service in a reliable manner. The new software should also provide a solution for existing problems in date and resource planning. Having to manage 170 simultaneously running projects with an average duration of one to two years, delivery dates could often not be met. The heterogeneous project landscape complicated resource planning and a uniform project planning process was missing.

Planning in Excel and MS Project

In the course of an internal process optimization project, a competence team was formed with the aim to establish a central date and resource planning. The team initially relied on an in-house solution. During this phase, the team set up a schedule landscape by means of self-made MS Project schedules and their own Excel tools. At the same time, they were working on planning processes and the standardization of schedules. The high manual effort required for data maintenance, however, limited efficiency and thus the benefits.

Simultaneously, a digitalization project with ambitious objectives was launched. By implementing a dedicated project management software, the persons responsible at UHPT hoped to achieve the following improvements:

1. Increase in transparency,
2. More effective distribution of resources,
3. Increased planning security and precision,
4. Early identification of problems / delays in order processing
5. Reduction of manual effort in order monitoring.

THE IMPLEMENTATION OF THE PROJECT MANAGEMENT SOFTWARE HAS IMPROVED DATE AND RESOURCE PLANNING SIGNIFICANTLY.

Software Implementation

The competence team tried software products for project management available on the market and consulted external specialists. In the course of in-depth research, the list of about 50 possible suppliers was narrowed down to 15 suppliers with which interviews were conducted. Half-day workshops were then held with six suppliers

to get a clear picture of UHPT's requirements and the options provided by the respective software. In cooperation with PLANTA, the plant constructor implemented a demo system and organized another workshop. The decision for PLANTA was made in early 2020. For UHPT, the new software system convinces primarily for three reasons. Firstly, PLANTA standard already fits the requirements of company-internal processes, secondly, it facilitates the integration of all employees, and last but not least, the system allows for a simulation of projects and changes without a direct impact on the productive environment.

Implementation

UHPT has implemented the new PM-system at its corporate headquarters at Hagen simultaneously in all departments, staggered by product groups. Since April 2021, the software is used in the following business divisions:

- Planning of client projects, service projects, and F&E-projects,
- Construction, disposition, work preparation (departments/teams with comprehensive and continuous planning in PLANTA incl. resource planning for all employees in the PM solution),
- Purchase, supplier management, quality assurance, dispatch (departments with partial planning in PLANTA, no resource planning),
- Manufacturing: outline planning on cost center level in order to be able to derive a coarse resource planning and to monitor the workload. In-depth planning of manufacturing is done with SAP in combination with an MES (manufacturing executive system) based on the date-oriented project planning from PLANTA's PM solution.

A total of 145 users work with the new PM system: five project managers, four multi-project managers or date coordinators, 20



Simultaneously running projects in the multi-project board.

Images: Uhde High Pressure Technologies GmbH

team leaders, 60 reporters, 20 employees in management and sales. Besides the core product PLANTA project, which is used for multi-project management, UHPT also has implemented a component for customizing and interfaces and has put the system into operation in two languages, German and English (for client reports). The entire search for and implementation of the new tool took 20 months, of which 12 months passed between the problem definition and the decision for a project management solution. The implemented software has ever since replaced all MS-Project schedules and Excel tools — a linkage of all projects in multi-project management allows for better planning quality and optimizes the effort required for project monitoring

Interfaces, Integration, and Adjustments

Interfaces to the SAP system have been realized in the course of software implementation in order to be able to, e.g., exchange relevant project data like dates and tasks. In the future, HR data will furthermore be transferred to the SAP system. To meet UHPT's requirements, the standard software was in part extended by new views or filters which respond to spe-



With more than 300 employees, plant constructor UHPT, a subsidiary of ThyssenKrupp, supplies international markets with industrial high-pressure plants and equipment

cific listbox values in the process or fill them. Adjustments were also made to the dashboard and to the project core data. This enables the users at UHPT to hide and unhide fields and data areas in the project core data and to have overdue work packets of all projects displayed in the dashboard (or only of particular ones by filtering). In the future, UHPT want to carry out such adjustments themselves and therefore receive customizing trainings by the system supplier.

Conclusion

„The new PM software allows us to map all customer, service, and F&E-projects. Continuous planning allows for a more detailed resource planning and respective prioritization. Adherence to delivery dates has been increased significantly and measurably due to the implementation of the new PM system. « JBI

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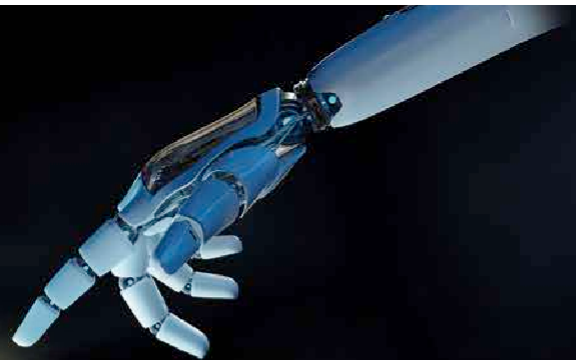
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