GLOBAL QUALITY STANDARDS FOR MASTERPIECES OF COMPLEXITY

Operational excellence assured through quality management software

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With more than 20 locations around the world, Miba AG is an experienced global player as a supplier to the motor and vehicle industry. The company is pursuing the 'one.miba' project to create a standardized process and IT environment that can be rolled out across the four key areas of Technology and Product Development, Supply Chain Management and Quality. This not only enables Miba to better manage the increasing complexity of its markets but also ensures greater transparency in quality management.

Family car, leisure-time speedster or second home: car drivers see the benefits of their vehicles through different eyes. More seldom is the perception of them as 'masterpieces of complexity', even though a VW Tiguan, for example, consists of around 25,000 individual parts. Integrating so many components economically in such a short time to the highest quality standards is one dimension of complexity. The second is in the logistical challenge of bringing all the parts, of which up to 70 per cent may come from external suppliers depending on the vehicle type, together. Miba AG also produces a large number of automotive components such as cogwheels, chain wheels, cogged belt pulleys, main bearing covers as well as oil and water pumps that have to be delivered in top quality and with perfect logistical coordination to customers around the world.

The Primer Coating: Coordinated IT and Business Processes

In a similar way to a primer-coated canvas, IT-based operational excellence not only forms a stable foundation but also plays a key role in Miba's global value chains. With its 'one.miba' program, the company has created the process and IT environment necessary for this at so far eight global production locations.

"one.miba is primarily about achieving a virtually perfect interaction between employees and IT – across language, cultural and technological boundaries," explains Günter Reittinger, Quality Project Manager at Miba AG. "There were clear requirements for the process landscape at the beginning of the project. It must not just provide stable, secure and logically standardized processes, but must be capable of being rolled out to additional locations. Furthermore, employees must be able to exchange best practices and thereby share e.g. ideas on improving quality among each other quickly."

Günter Reittinger,
Application Support and
CAQ Project Management,
Miba AG

Miba launched a separate project for the area of quality in June 2013, with planned completion by mid-2015, with the support of management consultants ROI and IT service provider IBS AG. "There are two subjects in global networks where carelessness is not allowed. First, discipline, efficiency and transparency in quality processes must be constantly examined and improved. Second, IT structures are required that make quality-related data from as many points in the value chain as possible available for analysis. This is exactly what we are driving successfully in the quality project – the effort involved in quality work fell significantly in the very first few months," says Günter Reittinger.

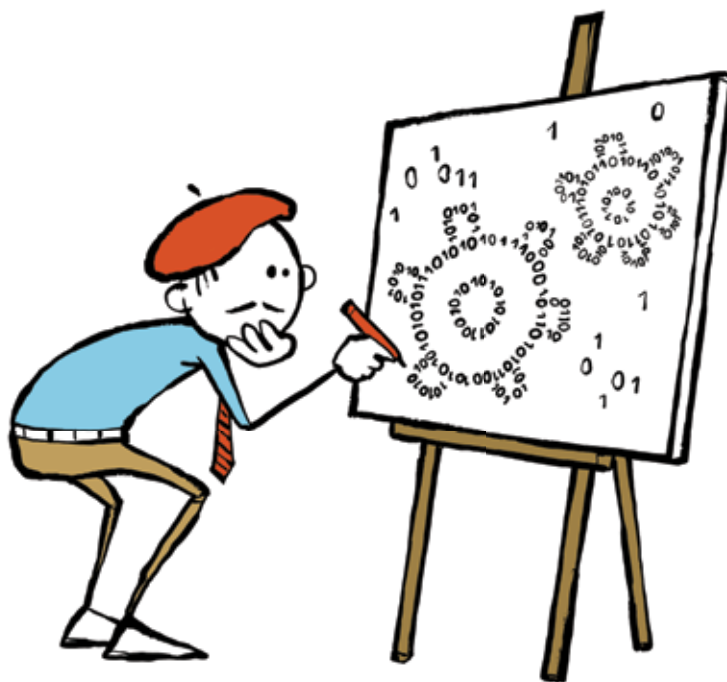**The Right Painting Technique: Clear Processes thanks to Quality Control Loop**

In order to achieve these goals, the project team decided to implement

the quality control loop with the support of IT. Using this approach, the team improved quality processes in the production locations using four interlaced stages:

1. **PLAN**: Development of a quality strategy with concrete objectives and KPIs
2. **DO**: Implementation of quality pre-planning
3. **CHECK**: Collect and analyze test data, perform audits
4. **ACT**: Derive measures, initiate product improvements and safeguard successful strategy implementation

However, it was only possible to realize these steps by implementing a new CAQ (computer-aided quality) software application. The project team involved the company's management board, quality managers and key users in order to obtain a fully realistic picture of performance requirements. This meant, on the one hand, a great deal of communication and coordination effort in the implementation phase, but it soon paid off in the form of fast application of the software in daily operations.

"We were able to significantly reduce effort in a number of work processes. What is more, employees can now access all relevant data in order to quickly determine and resolve the cause of any complaint that may arise," Günter Reittinger explains. "What is important for a successful rollout of this method in other locations are the technical and organizational steps. These can take the form of manuals and also regular training sessions. It is also very important to fully document measures and decisions in a for employees structured manner."

Finding Your Own Quality Style: Reducing Defects, Sharing Best Practices

Although the project has not yet been completed, the team has implemented the rollout in all eight plants that use SAP/CAQ. This means that the production locations already have

- Standardized quality processes (e.g. for internal and external complaints),
- Standardized interfaces for their ERP system and for location-specific data collection,
- Improved process integration (e.g. with regard to testing plans, complaints process in the product development process) and
- A standardized and promptly available data pool as well as standardized reporting across all locations.

"A standard data pool in particular is a typical 'Big Data' challenge for the future that we have already solved. Because it allows us not just to access the performance of individual locations at the touch of a button, it also enables our network of locations to act more flexibly. We use software-based benchmarking and error analysis to identify quality bottlenecks and best practices more quickly and to introduce appropriate measures directly," says the project manager.

Günter Reittinger is accordingly optimistic about the next steps in the project: "We are currently planning the rollout to plants in China and a plant in the UK. In the process, we will continue to reduce the complexity in the management of the network and increase the quality of our products through the coordinated further development of existing standards."

Miba AG

Miba is one of the leading strategic partners of the international engine and automotive industry. The company, which was founded back in 1927, employs more than 4,300 people at over 20 locations around the world. Miba's products
– sintered components, bearings, friction components, power electronic components and coatings
– can be found in vehicles, trains, ships, aircraft and power plants.
www.miba.com

IBS AG

As a globally-operative software company, IBS AG has been developing and providing software solutions and services for productivity management in industrial companies since 1982. In accordance with the company's philosophy of 'The Productivity Advantage', IBS AG has dedicated itself to developing and implementing CAQ, LIMS and MES solutions that contribute towards optimizing customer business processes and increasing the productivity of companies. IBS AG is part of the Siemens Group.
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