

INDUSTRY 4.0 MUST PROVIDE INTUITIVE SUPPORT

Discussion between Andreas Jenke and Hans-Georg Scheibe about the prerequisites for successful Industry 4.0 projects

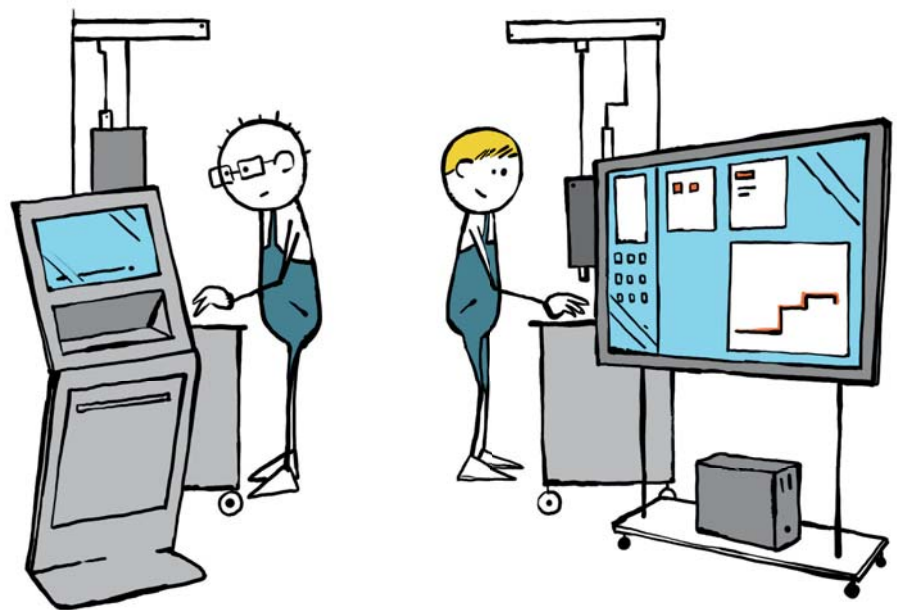
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DIALOG: Mr. Jenke, congratulations on winning the Industry 4.0 Award. Your new pilot assembly line provides impressive results with regard to the efficiency and quality of production, flexibility in staff deployment and even ergonomic workplace design. What does a project like this need to be successful? What resistance and difficulties had to be overcome?

AJ: Thank you for your words of congratulation. We are very proud of winning the Industry 4.0 Award.

Putting Industry 4.0 into practice results in a significantly more closely-knit network for the entire value chain in production but also to closer ties to engineering processes and after-sales service. We concentrated on operational procedures in the value chain of the product in the project.

Close interdisciplinary collaboration between manufacturing, job and production planning, materials logistics, factory IT and the plant manufacturer is



required in order to realize such a project successfully. Profound knowledge of the processes in each of the relevant areas combined with new ideas from Industry 4.0 form the basis for creative, forward-looking project work.

The challenge consisted in ensuring this interdisciplinary collaboration in the project within the short duration of the project given that operations were running at full speed in parallel. In the course of the project it was important to identify feasible and at the same time innovative and pioneering topics and to also actually put them into practice.

DIALOG: Mr. Scheibe, what do you think makes Bosch Rexroth's winning project so special?

H-GS: I can only underline what Mr. Jenke just said. I'd like to pick out above all the holistic and ubiquitously networked approach integrating various aspects of Industry 4.0 and being based on a clear roadmap of the future. At the same time there was also a very high degree of digitalization and the systematic exploitation of possibilities that resulted from this – particularly in assembly, staff and production planning and in process and production control. The intelligent use of data generated in the overall system is also an important factor.

DIALOG: *Mr. Jenke, one central element of your Industry 4.0 implementation is the so-called ActiveCockpit. What role does it play in the overall solution?*

AJ: ActiveCockpit is the proof of how the implementation of Industry 4.0 principles can result in production information, which already exists in digitalized form, being made available to users in a concentrated and intuitive way. More importantly, ActiveCockpit creates the possibility of user interoperation and the openness that allows additional applications to be integrated into the communications for the shop floor. The benefits for the user are compelling: There is no complex, manual update process, which is necessary on current boards. Intuitive operation and

presentation result in those responsible clearly understanding the information. The troubleshooting process is shortened thanks to the clear and rapid identification of results and definition of measures. This makes ActiveCockpit an important feature in the overall Industry 4.0 map.

H-GS: Another factor is also important. Dealing with Industry 4.0 is often economically motivated among SMEs. That's not wrong, but if there's no guiding vision, as there was at Bosch Rexroth for example, it will be very difficult to leverage all potential and to address the central fields of action – in networking the entire value chain, in utilizing the data produced and in generating forward-looking data analyses, and also in continuously adapting to changing job and training profiles. In other words, an understanding must first develop that Industry 4.0 is more than just another lever with which to cut costs and increase efficiency.

DIALOG: *What was the level of acceptance for the Industry 4.0 solution and the strategy behind it among employees?*

AJ: The Industry 4.0 solutions have generally been very positively welcomed among employees in the areas supporting production and among employees in production itself. We have also learned a lot in the course of the project. One significant insight is, for example, that all the participants should be involved in the development process of such a plant even earlier in the process

In my view, two things in particular are important for the high level of acceptance. First, the solutions must support employees in their increasingly complex activities in an intuitive way. Second, the awareness among employees that changing market demands can only be mastered using these solutions is crucial.



Andreas Jenke,
Department Manager,
Customer Projects Assembly
Technology, Bosch Rexroth AG

DIALOG: *Mr. Jenke, after this important project, what does your Industry 4.0 roadmap look like for the coming years?*

AJ: Further projects have already been launched within the Bosch Group with the aim of implementing Industry 4.0 along the entire value chain. Realizing them will further increase the efficiency of the value creating areas.

As a vendor of industrial equipment, we are working at full steam to market products that are fit for the new demands of Industry 4.0. ActiveCockpit is one example of this. Furthermore, there are many more products from Bosch Rexroth.

We intend to actively shape this change process over the coming years, both from the user as well as from supplier perspective. We are well positioned in the Bosch Group to do this.



Hans-Georg Scheibe,
Member of the Management
Board, ROI Management
Consulting AG