

Rehearsal rooms for the next industrial revolution

A “Competence Centre Business 4.0” is being founded in Saxony-Anhalt.

Industry 4.0 – this term was first made public at Hannover Messe 2011. In 2016 the Special-purpose Association for the Promotion of Mechanical and Process Plant Engineering in Saxony-Anhalt (Zweckverband zur Förderung des Maschinen- und Anlagenbaus Sachsen-Anhalt, for short “FASA”) is presenting its study “Industrie 4.0 in Machinery and Plant Engineering” at Hannover Messe. This concept for the implementation of the fourth industrial revolution within the sector is primarily oriented towards the period leading up to 2020.

Machinery and plant engineering is among the most important branches of industry in the German federal state of Saxony-Anhalt. The sector, as a provider of production-optimised solutions, is as one of the region’s lead markets. “The small and medium-sized companies adapt to the requirements of the international market”, says Andrea Urbansky, Executive Secretary of the Special-purpose Association for the Promotion of Mechanical and Process Plant Engineering in Saxony-Anhalt, or FASA for short. The association has been a partner and companion to the companies for 20 years on their way to the global market. Now the transition to digital production and work processes is bringing a challenge of new dimensions: this “revolutionary” form of communication between man and machine, even between machine and machine.

“We want to fill the term Industrie 4.0 with life”, says Andrea Urbansky. And she adds that of course the FASA also wants to be a reliable partner for the entry into the new technological age. It carried out a study, on behalf of the Ministry of Sciences and Economic Affairs, which surveys and analyses the current situation in Saxony-Anhalt in order to give recommendations for action.

It is now a matter of implementing “Industrie 4.0 in Mechanical and Plant Engineering in Saxony-Anhalt”. The experience of FASA and the expertise of the Fraunhofer Institute for Factory Operation and Automation IFF in Magdeburg form a sturdy foundation for the road to industrial digitalisation. “The IFF possesses an excellent infrastructure for providing the companies with realistic possibilities for looking at and trying out Industrie 4.0 applications”, says Andrea Urbansky. She is a research assistant at the research institute and author of the study. She knows: “FASA and IFF have a precise knowledge of the situation in machinery and plant engineering in the region and of the needs of the companies.”

FASA will present the study “Industrie 4.0 in Mechanical and Plant Engineering” at the joint stand of the federal state of Saxony-Anhalt at Hannover Messe. It is aimed at small craft businesses and at medium-sized firms with around 250 employees, but also at large companies, and at responsible figures from other industries along the value creation chain and from politics. And it is meeting with a lot of interest. Joachim Peisker of the company Weber Industrieller Rohrleitungsbau und Anlagenbau GmbH Co. KG in the city of Merseburg is expressing a typical attitude when he says: “What is decisive is to retain and stabilise our market position globally. We have to come up with something new in order to work efficiently and profitably and to assert ourselves against our competitors.”

“Our study is intended to motivate companies and help them to find the right levers and apply them in the modernisation of their information and communication technologies”, says Andrea Urbansky. As fields of application, she names the services of a company, the production process and also product design.

First of all, however, she thinks that company managers have the task of dispelling employees’ fear that networked plants and machines will take over the humans’ work. Industrie 4.0 will not lead to factories with no people. It is much more a case of providing people with technology that will assist them and lighten their workloads. That is why the new technologies have to be simple, functional and manageable.

The author of the study focuses attention on another aspect: “The demographic development also makes fully automated value-added chains necessary.” In the study, Christof Günther, General Manager of Infracleuna GmbH, owner and operator of the infrastructure facilities at the chemical park in Leuna, puts forward the proposition that the digitalised industry will be able to solve the problematic bottlenecks in qualified personnel. “We have to deploy our personnel very efficiently. Releasing employees from monotonous work creates resources for tackling challenges to the company.”

In the study, business people and politicians will find action guidelines and recommendations that are based on online surveys and meetings with experts. “We have produced a multi-faceted catalogue of measures, combining various suggestions and wishes, so the widest variety of companies will be able to obtain both suggestions and answers to questions of IT security and data protection”, says Andrea Urbansky. “In addition to this, research is presented on different best practice examples that each company can examine for itself.”

“The core part of our catalogue of measures is also being advocated by politicians”, says the author happily and holds out the prospect of the founding of a “Competence Centre Business 4.0”. The concept for this will be presented at the end of May. It envisages a kind of platform on which the companies can meet and exchange information. The competence centre is intended to promote the networking of the companies with the universities and research facilities, and other relevant stakeholders in the region. “We are considering a workshop series on the subject of ‘Opportunities and Risks of Industrie 4.0’”, says Andrea Urbansky and mentions, among others, the Chamber of Industry and Commerce, the Chamber of Trade and Chamber of Engineers as possible partners.

The “Competence Centre Business 4.0” is to be located at the IFF and to use the Virtual Development and Training Centre here. The VDTC specialises in the latest virtual reality technologies for applications in industry. “Here, in a ‘smart factory’, it will be possible to test new technologies for their practicability”, says Andrea Urbansky.

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Caption

Andrea Urbansky, Executive Secretary of the Special-purpose Association for the Promotion of Mechanical and Process Plant Engineering in Saxony-Anhalt (“FASA”), is author of the study “Industrie 4.0 in Machinery and Plant Engineering”

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