

**PRESS RELEASE**

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## Quality Area at the METAV 2018: processes digitally under control

First understand – then digitalise

Frankfurt am Main, 11 December 2017. – *The motivations for visiting the Quality Area at the METAV 2018 are many and varied, but at present plenty of visitors are primarily interested in one topic: how can the quality of their processes be improved with digitalisation? What small and mid-tier companies (SMEs), especially, should bear in mind is outlined by Andreas Wank, a research associate at the Institute of Production Management, Technology and Machine Tools (PTW) at Darmstadt University of Applied Sciences.*

Large corporations sometimes have things easier when it comes to Industry 4.0, says Andreas Wank when explaining his field of research: they are more likely to have funds available to build a new greenfield factory in which they can without risk try out and introduce the new digital approaches involved. The situation is rather different at small and mid-tier companies, who in most cases will find it difficult to digitalise their existing brownfield production facilities. They should accordingly as a first step think very carefully about what specific ratios they wish to improve.

But Andreas Wank's researches involve not only the field of digitalisation; as Managing Director of the new SME 4.0 Competence Centre in Darmstadt he also helps firms to safely embark on new digital approaches. "We tackle digitalisation primarily in terms of methodology," he explains. "The focus here is not on replacing human work, but on complementing it." For this purpose, he continues, it's necessary in the digital process to automate activities that had hitherto been performed manually, like acquiring and entering measured data. Here, for example, the experts use their Value Flow Analysis 4.0 to identify cases of digital waste in manufacturing processes. These include digital media interruptions, where data are either not being acquired or not being forwarded. To quote Andreas Wank: "Often measured data are entered in the measuring computer by hand, but no regular analyses are performed and the information involved is not forwarded."

### **Chaos cannot be digitally eliminated**

First-time users should accordingly start by learning to understand their processes and stabilising them before proceeding to digitalise them. "It's often not worthwhile entering directly into further digitalisation if you don't know precisely what the processes look like," explained Andreas Wank. "Things mostly go wrong when someone tries to eliminate chaos with digitalisation." When analysing a company in Hesse with a high level of variant diversity, for example, his staff discovered that the information flow between Purchasing, Production Planning and Assembly was not functioning flawlessly. Digitalisation had already failed in the first step because no one properly understood the sequence of the information flow.

The experts at the Competence Centre supported the company in adopting a systematised approach: they first of all defined the ideal

process sequence, so as to develop a digital support concept together with the staff.

### **Help for digital self-help**

But there are also difficulties involved in bringing together existing, historically evolved IT systems to form a consistently harmonised digital concept. "The major problem here is developing a harmonised digital solution without stopping the operational sequence," comments Andreas Wank. "It doesn't help that in small and mid-tier companies this task is mostly handled by staff in addition to their everyday remits." As an alternative to expensive management consultants, the Competence Centre offers help for digital self-help. It trains staff in methodological approaches, which before using them in their own plants they can then try out safely in the Process Learning Factory (CiP), or the new Energy-Efficiency Factory (ETA) at Darmstadt University of Applied Sciences.

One of the major challenges Andreas Wank encounters during his work is the chance that the information flow in companies will in future be handled without any paper at all. "Ideally, the entire process will be run digitally, since the products concerned will bring the requisite information with them," he says with a view to the future. "Then the processes can be controlled or interlocked on the basis of real-time data. This would not be possible with a static paper-based approach." He's particularly interested in a digital view of quality assurance in conjunction with metalworking applications. To quote Andreas Wank: "This is why I see the Quality Area at the METAV 2018 as a very interesting source of ideas for us."

*Author: Nikolaus Fecht, freelance journalist from Gelsenkirchen*

Size: around 4,658 ch. incl. blanks

## **Profile**

Set up in 2016, the SME 4.0 Competence Centre in Darmstadt is part of the "SME 4.0 – Digital Production and Work Processes" funding initiative supported by the German Federal Ministry for Economic Affairs and Energy (BMWi). The currently 20 SME 4.0 Competence Centres are tasked with raising awareness levels, providing information and skilling opportunities for companies and offering them specific hands-on inspection and trialling options. At the Competence Centre in Darmstadt, four institutes are involved from Darmstadt University of Applied Sciences, two Fraunhofer institutes, the Darmstadt-Rhine-Main Neckar Chamber of Industry and Commerce, and the Frankfurt-Rhine-Main Chamber of Crafts. The Competence Centre supports small and mid-tier companies (SMEs) free of charge in digitalising their production and business processes. The spectrum here ranges from orientation, analysis and skilling all the way through to individualised support in implementing specific solutions.

More informations: [www.mit40.de](http://www.mit40.de) , [www.mittelstand-digital.de](http://www.mittelstand-digital.de)

## **Contact person**

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## **Background: the METAV 2018 in Düsseldorf**

The METAV 2018 – 20<sup>th</sup> International Exhibition for Metalworking Technologies – will be held from 20 to 24 February in Düsseldorf. It will be showcasing the entire spectrum of production technology. The keynotes will be machine tools, manufacturing systems, high-precision tools, automated material flow, computer technology, industrial

electronics, and accessories. These will be complemented by the new themes of Moulding, Medical, Additive Manufacturing and Quality, which are firmly anchored in the METAV's exhibition programme in what are called "Areas", each with its own nomenclature. The visitor target groups for the METAV include all industrial sectors that work metal, particularly machinery and plant manufacturers, the automotive industry and its component suppliers, aerospace, the electrical engineering industry, energy and medical technology, tool and mould construction, plus the metalworking and craft sectors.

You will find texts and pictures for the METAV 2018 on the internet under [www.metav.de](http://www.metav.de) in the Press Service section. You can also visit the METAV through our social media channels.



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