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Mechanical engineering is driving the digital transformation on platforms, too

- **Study: Digital services in the spotlight**
- **VDMA: Topic needs to be firmly established in the boardroom – even at medium-sized companies**

Frankfurt, February 9, 2018 – Mechanical engineering is succeeding in driving the digital transformation – so far mainly in production, but soon through new business models, too. Digital platforms and the platform economy they foster will play an ever-growing role, with value creation in the mechanical engineering industry increasingly coming from digital services. “Unlike in the consumer sector, the often complex processes do not lend themselves to radical simplification – be it the joint development and individual, customer-specific configuration of a machine, commissioning or aftersales service. But the companies have the expertise needed to meet a customer’s requirements. That will enable mechanical engineering to act as a driving force for change in the platform economy, too,” explains Hartmut Rauen, Deputy Executive Director at VDMA.

The industry will only be able to adopt this leading position, however, if smaller and medium-sized companies drive the digital transformation forward. “The issue of the platform economy needs to become firmly established at board level. Companies have to develop a clear strategy for the platform economy,” says Rauen.

In the run-up to Hannover Messe 2018, VDMA has come together with the consulting firm Roland Berger and Deutsche Messe AG to produce the “Platform Economy in Mechanical Engineering” study, which analyses the structures for digital business models across the entire spectrum of an industrial sector in the B2B segment for the first time.

The study also lists the greatest challenges facing medium-sized mechanical engineering companies, and recommends courses of action. Dr. Michael Zollenkop from Roland Berger explains: “The biggest obstacles for mechanical engineering companies lie in becoming aware of the relevance of platforms for their own business and for existing and new customer groups. Additional hardware sales, increased customer retention, standing out from the

competition with innovative digital services – companies can use different types of platform depending on their aims.”

Further challenges:

- The platform economy demands totally new expertise compared to the core business.
- The complexity of the B2B landscape is currently producing a large number of platforms, although the network effect is creating pressure to consolidate.
- The pressure of competition and the opportunities in mechanical and plant engineering will both increase thanks to new opportunities for companies to stand out.

“Before thinking about platforms, mechanical engineering companies should evaluate their situation objectively in order to set realistic targets and schedules for establishing a platform business. How digitally mature is the company? Which existing initiatives and knowledge base in the company can be built on? And finally, which knowledge holders and budgets are available for working on platforms?” says Martin Lüers from Roland Berger.

Further recommendations from the study:

- Developing options – which positioning with regard to platforms is right for the company? How will the business model and services need to be adapted?
- Control over the customer interface – expanding the range to include digital services/apps and business models as the key to the customer interface
- Joining collaborations – some elements of digital business models are best tackled alone, others are more successful as partnerships

On the “Platform Economy in Mechanical Engineering” study

The mechanical engineering industry is characterized by high levels of complexity. Many market participants produce specialized machinery in line with very specific customer demands, while many smaller markets are served by medium-sized companies. Mechanical engineering is thus very different from other industrial segments or the consumer sector. The platform economy now presents a new way to conduct business processes.

Two key versions:

1. Digital marketplaces for industrial goods and services
2. Industrial Internet of Things (IIoT) platforms

The success of digital platforms is based on three characteristics: they reduce transaction costs, they enable new services and business models, and the network effect increases the benefits of platforms exponentially as the number of participants grows.

Currently, most of the platforms arising in the marketplace segment have vertical structures that compete with one another. A company offers its products, accessories, spare parts, services and perhaps even used machinery via the platform. The range is supplemented by suppliers of raw materials, logistics service providers, financial service providers or software houses. As a result, the customer can not only purchase the core product, but also pick up all relevant goods and services to complement it from the same platform.

The success factors for platforms:

- Low barriers to entry
- Wide range of products and services
- Fast platform growth
- Gradual expansion to include payable premium services

Conclusion:

The platform economy will ring in a new age in mechanical engineering, just as it has in the B2C sector. In the future, the added value provided via digital services and business models will be a key element in helping mechanical engineering companies stand out. A position in the platform economy must therefore be a crucial part of any mechanical and plant engineering company.

You can find core elements of the **B2B Platform Economy** study here:
Hannovermesse.vdma.org.

You can conduct an online self-check for companies here:
<https://www.industrie40-readiness.de/>

VDMA represents more than 3,200 mostly medium-sized companies in the mechanical and plant engineering sector. With 1.35 million employees and sales amounting to approximately 224 billion euros (2017), the sector is the largest industrial employer in Germany and one of the leading German industrial sectors.