**Practical tips for SMEs**

**Boosting efficiency with digital engineering**

**The digital revolution has held sway over the mechanical engineering sector for quite some time now. There is certainly no shortage of big and bold predictions and large-scale case studies, but they are of limited help to small and medium-sized enterprises,** **which are facing practical questions such as: What specific impact will new technologies and workflows have on SMEs in the mechanical engineering sector? And how does this change the job of an engineer? The extensive study** [**“What will mechanical engineering look like in the future?”**](http://www.digital-engineering.de/) **conducted by item Industrietechnik gets right to the heart of the matter.**

Digitalisation boasts enormous potential for mechanical engineering companies, but particularly small and medium-sized enterprises are often unable to determine how it specifically affects them. What’s missing is a digitalisation strategy. In its latest study, item, the market leader in building kit systems for industrial applications, examines the challenges and opportunities digitalisation presents for SMEs. Besides evaluating the latest papers and publications, this study predominantly focuses on real-life experiences. To this end, numerous experts from business management, procurement and engineering were surveyed, with 141 interviews subsequently carried out online. The findings reveal that, rather than posing a threat, digitalisation offers SMEs in particular a very promising opportunity to boost efficiency.

**Accepting the challenge and becoming more efficient**

Trends such as Industry 4.0 have firmly taken root in the mechanical engineering sector. Respondents were of the same opinion on how digitalisation will evolve, with 68.8 percent agreeing with the statement that processes and workflows in factory equipment and mechanical engineering will become increasingly digital over the next five years. Despite this clear consensus, however, the trend of digitalisation has yet to culminate in uniform industry standards, leaving the sector in urgent need of guiding principles. Mechanical engineering companies that are already pursuing digitalisation often tend to base their approach on their customers’ specifications, particularly in terms of engineering.

When it comes to engineering, there is a considerable challenge that must be overcome. Heavy workloads and growing customer expectations of short project timelines are turning engineering into an increasingly important time factor. As a result, it is often outsourced. Nevertheless, specialist providers of factory equipment and customer solutions will not be able to cope with this volume of work using conventional means. The mechanical engineering sector has no other choice but to find a solution to this problem. One option lies in using innovative online configurators that can considerably reduce the time and costs involved. They can be used to complete standard tasks faster – with intuitive user interfaces eliminating the need for time-consuming induction training.

**Digitalisation strategies are few and far between**

Although the majority of the study participants consider digitalisation to be a fundamental aspect of the future of mechanical engineering, only 9.2 percent stated that their company has devised a concrete digitalisation strategy. The main reason for this lies in the vast differences between mechanical engineering companies. Each business is made up of such a unique combination of different factors (sector, company size, market conditions) that there isn’t one standard approach to digital transformation. The most important task therefore is to gain an interdisciplinary perspective – every field of business needs to be involved because digitalisation is not a process that applies only to certain areas. And should employees express concerns, these can be dealt with succinctly in training courses and workshops – an approach that all the respondents agreed on.

**A checklist offering recommendations**

item has created the checklist [“How well prepared is your company for digitalisation?”](http://www.digital-engineering.de/?cnt=cnt2) for companies wondering where they currently stand in terms of digitalisation. It is a good idea to go through this after reading the digitalisation study, as the checklist builds directly on this research. By choosing between three possible responses to each of the six key questions in the checklist, businesses can quickly determine what stage of digitalisation they have reached. They get a compact overview and receive tailored recommendations for each question. Even companies that are only just making a start still have every opportunity to benefit, with the study showing that digitalising individual processes – even if large investments are not made – helps lay the foundations for more efficient workflows.

The full study can be downloaded for free at [www.digital-engineering.de](http://www.digital-engineering.de). Companies can find the checklist at <http://www.digital-engineering.de/?cnt=cnt2>.

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**Picture captions:**

**Image 1:**  68.8 percent of respondents agreed with the statement that processes and workflows in factory equipment and mechanical engineering will become increasingly digital over the next five years.

**Image 2:** The majority of the study participants consider digitalisation to be a fundamental aspect of the future of mechanical engineering.

**Image 3:** Using online configurators such as the item Engineeringtool can significantly reduce the time and costs involved in engineering work.

**Image 4:** item has created the checklist [“How well prepared is your company for digitalisation?”](http://www.digital-engineering.de/?cnt=cnt2) as a guide for SMEs eager to know where they stand in terms of digitalisation.

**About item**

item Industrietechnik GmbH is a global market leader in building kit systems for industrial applications and employs around 500 members of staff. It has been designing and marketing construction solutions for machinery, fixtures and plants since 1976. The product portfolio comprises more than 3,500 high-quality components designed for use in machine bases, work benches, automation solutions and lean production applications. Thanks to the inclusion of transport solutions and dynamic elements, the company’s products can cover virtually all working processes, from manual production to automated manufacturing. The highly skilled employees work day in, day out to develop innovative solutions for state-of-the-art mechanical engineering and also offer exceptional consulting services. item is headquartered in Solingen, Germany. Eleven branches and support centres ensure the company is always close to customers in Germany. The group has wholly owned subsidiaries in the USA, China, Mexico, Italy, Poland and Switzerland.

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