

## Lenze means business with digital engineering

### Solution for the smart factory

“Digital engineering” is an Industrie 4.0 term that can currently be seen and heard in all kinds of media. It basically refers to the development, construction and operation of complex machines and production systems with the help of digital methods and tools – and not just by using computers. It means the consistent, comprehensive digitalisation of processes and of the flow of information connected with these processes. Key terms here are “digital twin” or “administration shell” as defined in RAMI 4.0 (Reference Architectural Model Industrie 4.0). Digital engineering ensures that the data which accumulates in the process of developing and constructing components, machines and production systems can be transferred seamlessly without losing any information. This enables relevant data to be passed from the manufacturer to the OEM and then on to the plant operator.

In digital engineering, **positive effects** occur at every level of the value chain. Development processes for both the components manufacturer and the OEM can be significantly simplified (→ costs, need for personnel) and accelerated (→ time to market). Also, machines become more intelligent (→ complex production) and more flexible (→ batch size 1), and machine operation becomes more reliable (→ availability) and more efficient (→ use of resources).

In this way, the consistent, comprehensive flow of information also supports the operation and maintenance of machines, and it supports the new data-based service and business models that are the hallmark of **Industrie 4.0 and the Industrial Internet of Things (IIoT)**. Data from the day-to-day operation and maintenance of a machine ultimately finds its way back automatically to the OEMs and manufacturers, where it contributes to the improvement of the development and construction processes.

#### Lenze leads the way

In practice, the scenario sketched out above can – as things stand today – only be achieved in a piecemeal way. The necessary tools, with shared data models and standardised interfaces, are not yet sufficiently available. In order to be able to increase the efficiency potential of digital engineering, we need **innovative companies** to produce these tools and make them widely available to the market. Lenze has decided to take this path and to bring its customers on board at an early stage. The expert in Motion Centric Automation is thus taking a **leading role in the digitalisation of the industry**.

#### Lenze provides solutions

A very important factor in developing tools for digital engineering is to keep a very close eye on the market. But caution is also called for – because how can the customer today know what possibilities will be available tomorrow? Henry Ford reportedly said: “If I had asked people what they wanted, they would have said: faster horses.” But he did not focus on breeding faster horses, he focussed instead on making the “better coach” – the automobile – available to a wider public through lower-cost production.



Lenze knows the challenges that are facing OEMs and plant operators with regard to subjects such as Industrie 4.0 and IIoT, and at the ITMA it is showing what lies ahead of them: digital engineering. The company has launched a series of developments that are currently in different stages of maturity. At the ITMA ASIA, interested visitors will have the opportunity to take a look at these developments and to discuss the next steps with Lenze experts. Visitors to the Lenze stand C 27 in Hall 5 are invited to be inspired, to share their ideas with Lenze and then to find the right tools for their business.