**Tebis 4.1 enables companies to digitalize their entire manufacturing environment**

*Clamping device library fully integrated in the virtual machine*

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For more information contact:

Silvia Mattei

Tebis

Technische Informationssysteme AG

Einsteinstr. 39

82152 Martinsried, Germany

Phone +49 / 89 / 81 803 - 1182

Silvia.Mattei@tebis.com

www.tebis.com

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**Even more automation of process sequences in Tebis 4.1 with fully integrated clamping device library**

**Martinsried, Germany, May 18, 2021 – Tebis, a specialist in CAD/CAM and MES process solutions in model, die and mold manufacturing, has fully integrated its clamping device library in its new complete CAD/CAM system 4.1. All real components relevant to manufacturing are now stored in virtual process libraries based on digital twins in Version 4.1. This enables automation of all manufacturing processes with fast, safe, and limited personnel production on the machinery.**

Reiner Schmid, Head of Tebis AG Product Management, explains: "Highly detailed digitalization of the manufacturing environment is an important milestone in the automation of manufacturing processes. Everything that can be completed in the CAM software saves time and resources on the machines. With the integration of the clamping device library in the virtual process library, the machine can now be completely set up in the virtual world – including multiple setups. This significantly reduces the setup time."

The clamping device library completes the virtual process libraries

All the usual equipment for securing workpieces can be managed and combined in clamping device groups in the Tebis clamping device library. Predefined connection points and an automated plausibility check enable the quick and convenient setup of both simple vises and zero-point clamping systems with several plate systems. External data like clamping elements and assemblies can be imported directly from the manufacturer and are immediately usable.

The most stringent safety requirements and flexible operation complement each other: If individual elements in a clamping device group can be moved, the direction of movement can be restricted using degrees of freedom. In addition, the clamping devices and clamping device groups can be positioned on the workpiece, and the entire part can be positioned on the machine table with just a few clicks. This allows quick set up of the machine in the virtual world for any manufacturing task in the machining process.

Setup processes on the machines are simplified: All relevant information is transferred with precise and complete NC documentation to the person responsible for setup.

### Digitalization of the manufacturing environment with Tebis

Tebis combines the digital twins of all manufacturing equipment in its complete CAD/CAM system 4.1. The enterprise customer’s real and unique manufacturing environment can be represented digitally in the Tebis installation, complete and true to detail. It was previously possible to represent all tools in the virtual world along with their geometric and technological information as well as units and all machines, including their kinematics.

Simulation with Tebis – safety and planning in manufacturing

The digital twins of a company's existing equipment ensure a high safety level and lay the groundwork for comprehensive automation of the manufacturing processes. That’s because the digital twins are used for true-to-life simulation and collision testing. In general, Tebis doesn’t use any substitute geometries to verify toolpaths: It uses the customer's individually measured and accepted machine model. The postprocessors programmed for the controls use this data and safely deliver the NC code. As a result, only NC programs that have been checked for collisions in the virtual manufacturing environment are sent to the machine. Many customers also use Tebis simulation technologies to plan feasibility on the machine.

**Images**

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Image 1: Reiner Schmid, Head of Product Management, Tebis AG

(Image: Tebis AG)

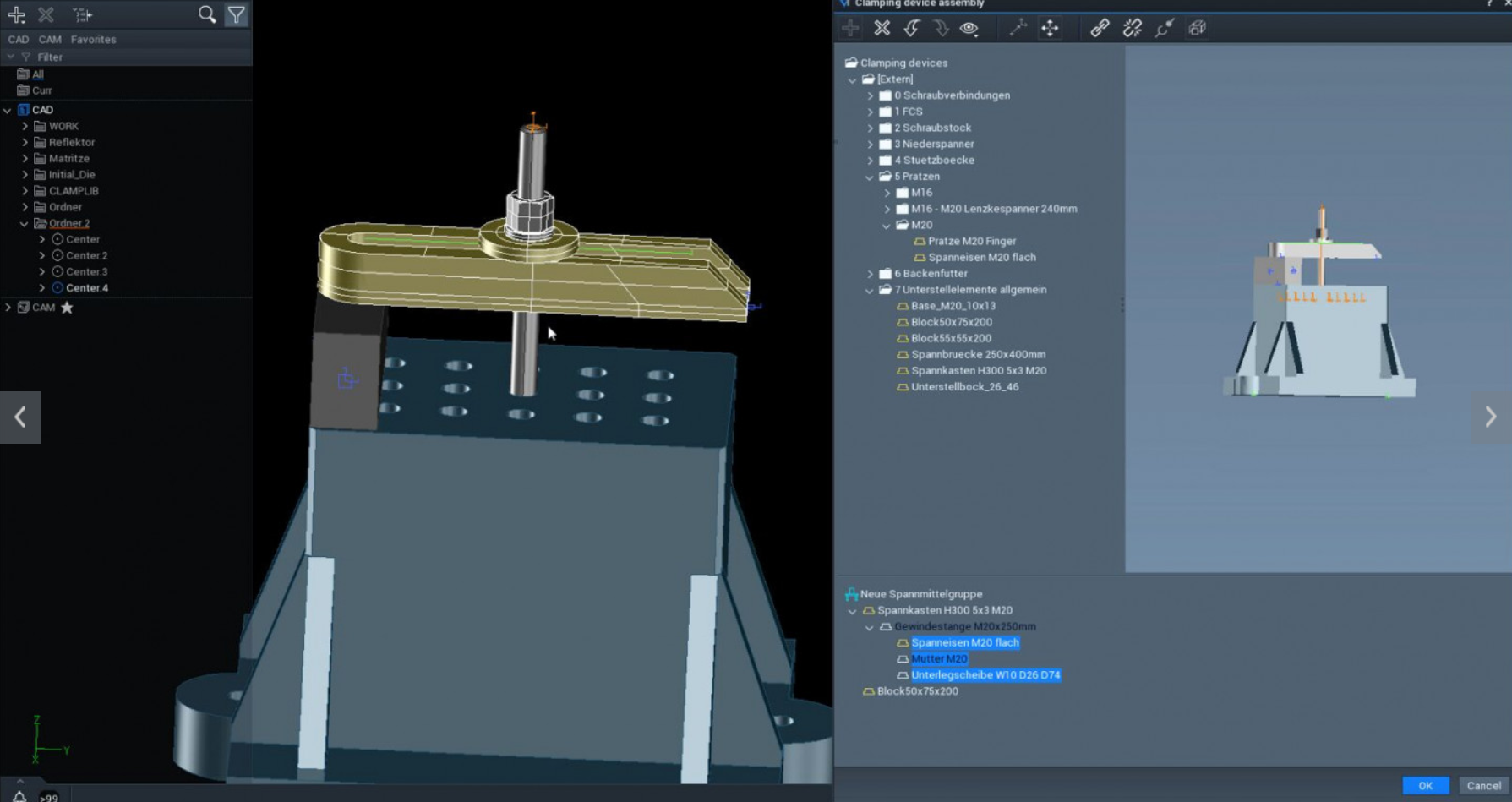


Image 2: Construct group of clamping devices

(Image: Tebis AG)

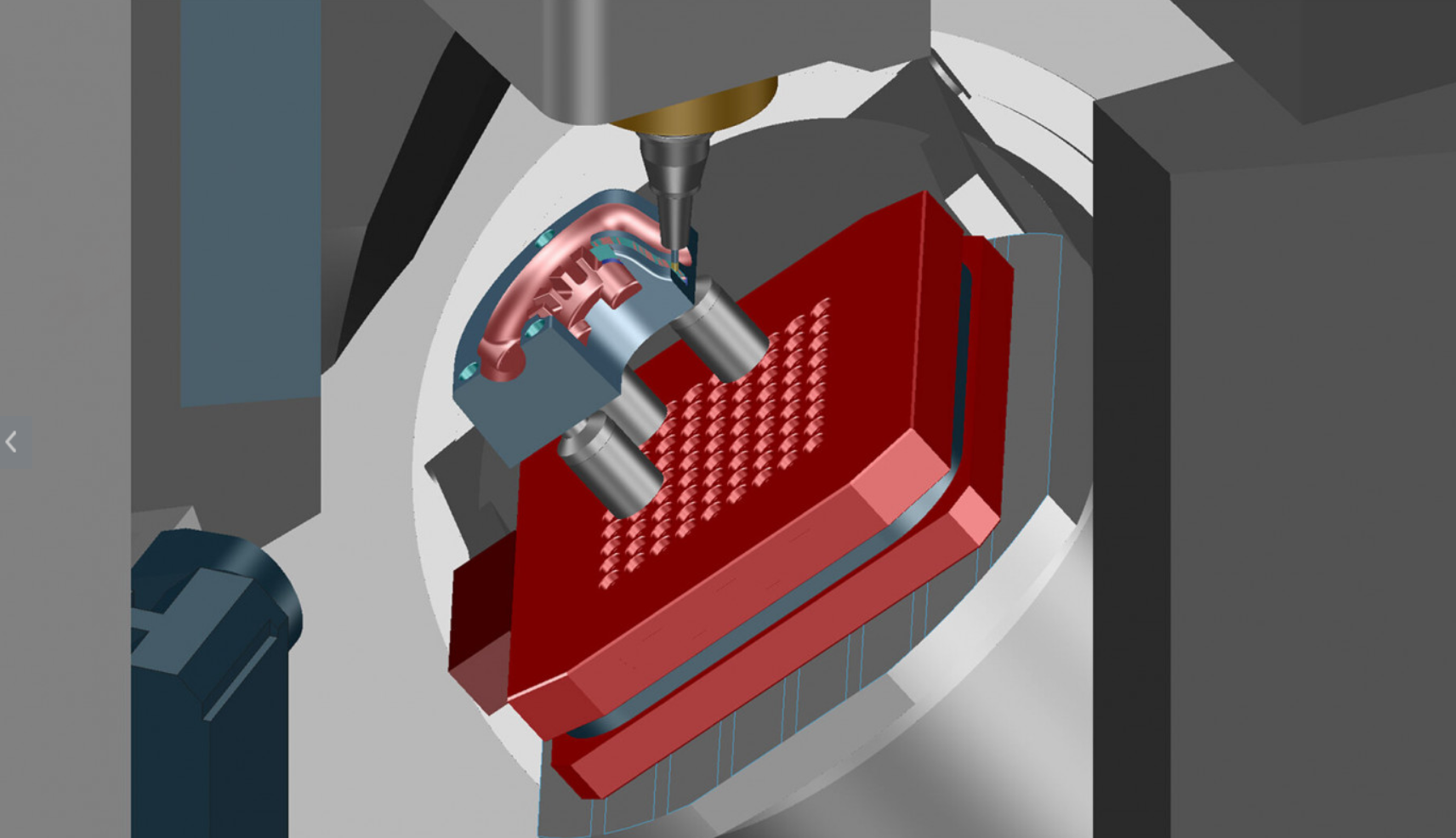


Image 3: Set up machine with zero-point clamping systems in the virtual world and perform complete collision check

(Image: Tebis AG)

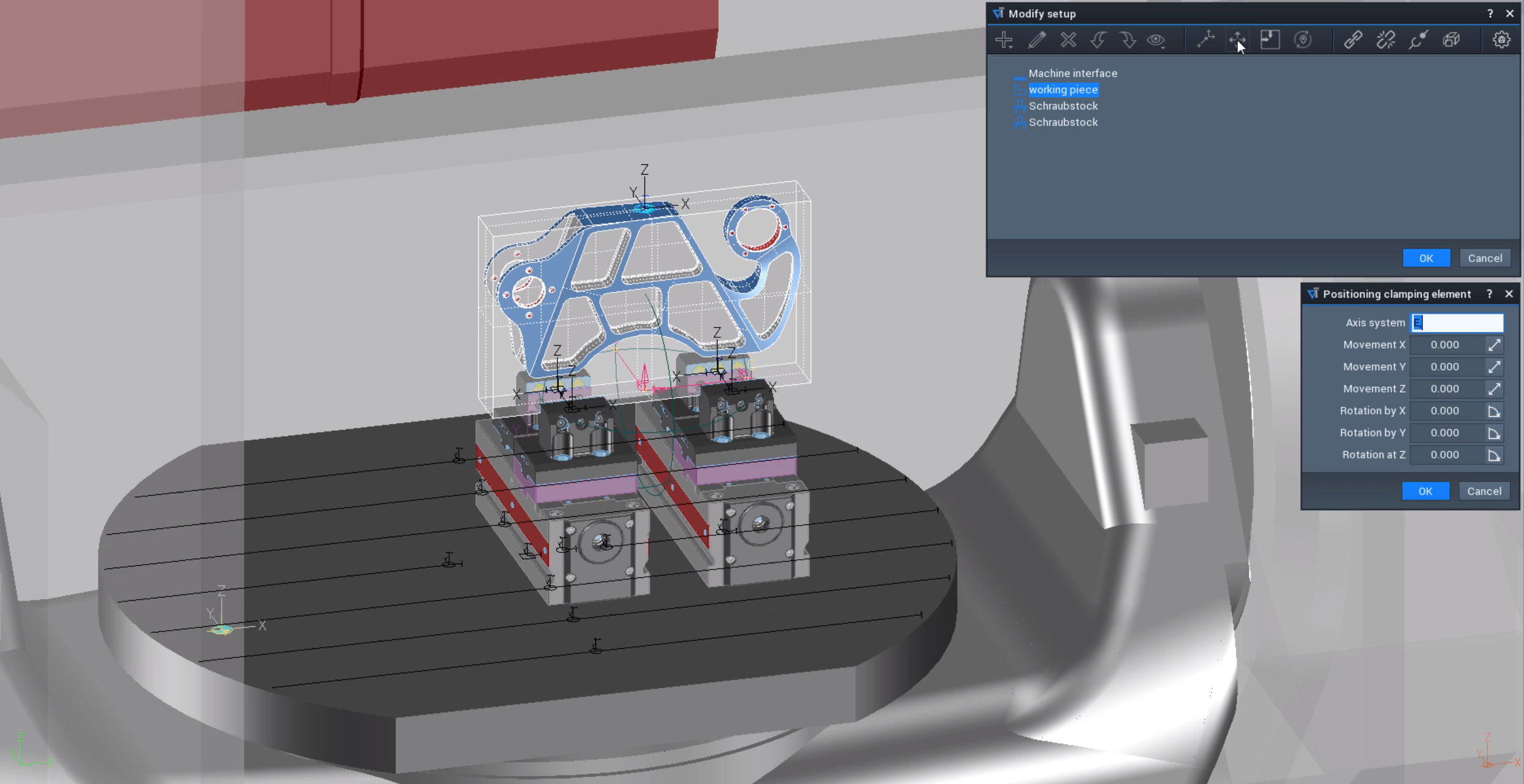


Image 4: Setup adjustment is quick and flexible

(Image: Tebis AG)



Image 5: Tebis 4.1

(Image: Tebis AG)

Tebis 4.1

The new Tebis 4.1 complete system is now available. It’s designed for enterprise customers on all scales in the die, mold and model manufacturing and production machining industries. Tebis 4.1 is a platform for the full automation of all process flows in modern manufacturing companies.

Enterprise customers have full access to Tebis' expertise for installing and their ongoing work with version 4.1. A modular training concept and training courses for special manufacturing processes enables Tebis users to fully utilize the software and improve their business processes for future viability. A dedicated support team is available for user questions – along with the expertise of the Tebis service team and numerous application games and interactive opportunities for exchanging ideas in the online community.

**About Tebis**

Tebis is a global market and technology leader in the CAD/CAM and MES sector. Customers use Tebis to design efficiently and safely, plan and manufacture models, molding dies and components to the highest quality. Teams of consulting and implementation specialists with practical experience develop strategies for efficient and safe CAD/CAM processes and implement them in the customer’s infrastructure to ensure a viable technological and competitive advantage.

Tebis software has an intuitive user interface that guarantees a high level of quality and safety in manufacturing, even in highly complex parts. Thanks to Tebis service offerings, customers can easily introduce new technologies and fully leverage the power of the Tebis process solutions.

The company is headquartered in Martinsried near Munich, Germany, and has nine subsidiary offices around the world as well as distributors in eight other countries. 350 employees worldwide support Tebis customers, most of whom are in the automotive, aerospace and machine manufacturing sectors.

Automation has been a key factor in the Tebis formula for success for over 30 years. Tebis views itself as an innovator for customers on their path toward Industry 4.0.

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