Supercomputer: TRUMPF cooperates with the High-Performance Computing Center Stuttgart

The technology company wants to use it to develop AI models and virtually recreate prototypes // TRUMPF CTO Berthold Schmidt: "This partnership strengthens our research and development"

Ditzingen/Stuttgart, 19. March 2024 – The high-tech company TRUMPF today signed a cooperation agreement with the High-Performance Computing Center Stuttgart (HLRS) of the University of Stuttgart. The aim of the agreement is to provide TRUMPF employees with the extensive computing capacities of the HLRS. "This cooperation shows that we in industrial Germany also have a powerful digital ecosystem. With the help of these mainframes, our developers can virtually simulate machine functions even before the first prototype is built and train AI solutions for our systems more quickly. This allows us to innovate more sustainably and efficiently," says Berthold Schmidt, CTO of TRUMPF. The "Hawk" supercomputer provided by HLRS has a peak performance of 26 petaflops, which corresponds to 1,000,000 billion computing operations per second. It is one of Europe's most powerful computers for industry and will be supplemented by its even more powerful successor model, Hunter, with around 39 petaflops at the end of 2024. "With Hawk and Hunter, we can support the further development of technologies at TRUMPF. We are proud that we can continue to contribute to the strengthening and competitiveness of the Stuttgart economic region with our computing power," said Prof. Dr. Michael Resch, Director of the HLRS. Within the framework of the partnership, the participants also hope to gain joint insights into further possible applications of mainframe computing systems in industry.

Investment in Artificial Intelligence and Quantum Computing

For simpler simulations, TRUMPF has its own high-performance computers. However, more complex tasks with higher accuracy can only be performed with supercomputers, such as those located at HLRS. One example is the simulation of quantum computers, which is so computationally intensive that it will be

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accelerated in the future with the help of the computing capacity of the HLRS. In the future, TRUMPF will also train AI models on the HLRS supercomputers. For several years now, TRUMPF has been offering its customers machine tools that use artificial intelligence to work faster and better. In the future, further solutions will be added to the offering.

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HLRS's supercomputers can be used to quickly compute complex tasks

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A TRUMPF colleague on the AI sorting guide, which supports her in sorting sheet metal parts. The company plans to develop more AI solutions in the future.

About the High-Performance Computing Center Stuttgart

The High-Performance Computing Center of the University of Stuttgart (HLRS) was founded in 1996 as Germany's first high-performance computing center. As an institution of the University of Stuttgart and a member of the Gauss Centre for Supercomputing, HLRS makes its computing capacities available to users from science and industry. HLRS operates state-of-the-art high-performance computing systems and, as an expert in the latest technologies, offers first-class training in the fields of programming and simulation. The center conducts research on groundbreaking questions and technologies related to the future of high-performance computing (HPC). HLRS' expertise includes parallel programming, numerical methods for HPC, visualization, cloud computing, highperformance data analysis (HPDA), and artificial intelligence, among others. The users of TRUMPF

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the center's systems conduct research in a wide variety of research areas with a focus on engineering and applied science.

About TRUMPF

TRUMPF is a high-tech company offering manufacturing solutions in the fields of machine tools and laser technology. It drives digital connectivity in manufacturing through consulting, platform products and software. TRUMPF is one of the technology and market leaders in highly versatile machine tools for sheet metal processing and in the field of industrial lasers.

In 2022/23, the company employed some 18,400 people and generated sales of about 5.4 billion euros. With over 80 companies, the TRUMPF Group is represented in nearly every European country as well as in North America, South America and Asia. The company has production facilities in Germany, France, the United Kingdom, Italy, Austria, Switzerland, Poland, the Czech Republic, the United States, Mexico and China.

Find out more about TRUMPF at <u>www.trumpf.com</u>

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