

Hanover, April 1, 2019

Siemens leads industry to the next level of digital transformation

- **This year's trade fair slogan: “Digital Enterprise – Thinking industry further!”**
- **Enhanced portfolio: cutting-edge technologies such as artificial intelligence and Edge computing increase productivity and flexibility**

At Hannover Messe, Siemens is presenting numerous additions to its Digital Enterprise portfolio for the next level of digital transformation in the discrete and process industries. At the center of its booth, Siemens is using a model for the automotive industry to show how the unique portfolio of industrial software and automation technology seamlessly connects the virtual and real worlds. Using cloud and Edge-based data analyses together with other future-oriented technologies, such as additive manufacturing and autonomous manufacturing systems, creates new possibilities in the areas of efficiency and flexibility.

The automotive industry is facing enormous dynamic challenges: in addition to growing customer demand for increasingly customized cars, electric vehicles are on the rise and new participants have entered the market. With the aid of Siemens' Digital Enterprise concept, the automotive industry can link all these different aspects together – including the development and manufacturing of batteries, the use of industrialized additive manufacturing, and automated transport vehicles.

“Through the integration of cutting-edge technologies into our portfolio, we can help industrial companies to benefit from rapidly growing data volumes in new, wide-ranging ways. With the use of technologies such as artificial intelligence, Edge computing and additive manufacturing, we are paving the way for the future of industry,” said Klaus Helmrich, Member of the Managing Board of Siemens AG and CEO of Digital Industries.

Under the slogan “Digital Enterprise – Thinking industry further!” Siemens is demonstrating how companies of any size can use industry-specific solutions to increase their flexibility and productivity and to develop new business models. The basis for these cutting-edge technologies is the availability of data. Through digital twins, which map and link together all the steps of industrial manufacturing in a virtual world, comprehensive data pools can be created.

“The crucial factor is using the data from the digital twin of the product, production and performance in an innovative way that creates new potential for productivity. When automation, software, hardware and cloud platforms as well as cutting-edge technologies are integrated and combined seamlessly, the data can be converted into valuable knowledge – increasing performance and flexibility. This is the next step of digital transformation,” Klaus Helmrich explains.

Through the use of machine learning algorithms, robot-based handling processes can be optimized, for example. For the learning process, artificial intelligence (AI) requires large volumes of data. And this data is only available if processes have been digitalized and linked together seamlessly. With Industrial Edge, Siemens has extended its Digital Enterprise automation platforms to include a data processing solution on the shopfloor.

Digitalization cannot be implemented without protecting industrial plants from cyber attacks. In the future, AI and Edge computing will also improve security, since data analysis can be used to detect cyber attacks far more quickly and reliably.

With Blockchain, the Siemens booth is presenting another future technology for industrial applications: in industry, there is considerable potential for improvement, for example in traceability for foodstuffs. In the food supply chain, information is documented in a digital and tamper-proof format, and stored in Blockchain on every step of the journey, including details such as the farm location, batch number, processing data, factory information, expiration dates, storage temperatures and shipping details. Relevant information is provided to users via the MindSphere-based app.

For process automation, Siemens is breaking new ground at the Hannover Messe and introducing a new innovative process control system. Siemens is presenting a

brand new system software package, which offers companies in the process industry new opportunities in the age of digitalization. This includes global web-based cooperation in engineering and operations as well as unique usability. In addition, the system offers the option of scalability from small process modules through to the largest process plants in the world.

In order to provide cross-sector data transfer and to increase flexibility and productivity, a wide-ranging, powerful communication infrastructure is required. The new 5G communication standard creates exciting prospects here. High data rates, reliable high-performance broadband transmission and ultra-short latency periods support considerable increases in efficiency and flexibility in industrial value creation – especially for *Industrie 4.0* applications. Siemens has used this new communication standard from the outset and is supporting standardization and industrial implementation through the development of an appropriate portfolio. Siemens is also running its own research projects for Industrial 5G and establishing several 5G interoperability test centers.

Siemens supports digital transformation with a range of services from consulting through to implementation. “We support our customers on the path to digitalization – from consulting on strategies for industrial digitalization through to supporting in the implementation and optimization of digital solutions,” notes Klaus Helmrich.

This press release is available at www.siemens.com/press/PR2019040224COEN

Further information on Siemens at Hannover Messe 2019 is available at www.siemens.com/press/hm19

Follow us on Twitter: www.twitter.com/siemens_press

Contact for journalists

Yashar Azad

Phone.: +49 173 1595901

E-mail: yashar.azad@siemens.com

Siemens AG (Berlin and Munich) is a global technology powerhouse that has stood for engineering excellence, innovation, quality, reliability and internationality for more than 170 years. The company is active around the globe, focusing on the areas of power generation and distribution, intelligent infrastructure for buildings and distributed energy systems, and automation and digitalization in the process and manufacturing industries. Through the separately managed company Siemens Mobility, a leading supplier of smart mobility solutions for rail and road transport, Siemens is shaping the world market for passenger and freight services. Due to its majority stakes in the publicly listed companies Siemens Healthineers AG and Siemens Gamesa Renewable Energy, Siemens is also a world-leading supplier of medical technology and digital healthcare services as well as environmentally friendly solutions for onshore and offshore wind power generation. In fiscal 2018, which ended on September 30, 2018, Siemens generated revenue of €33.0 billion and net income of €6.1 billion. At the end of September 2018, the company had around 379,000 employees worldwide. Further information is available on the Internet at www.siemens.com.