

VinFast deploys Siemens' full portfolio to deliver cars ahead of schedule

- **VinFast completed its automotive production within only 21 months**
- **Siemens' Digital Enterprise portfolio ensures VinFast's high manufacturing efficiency and product quality**
- **VinFast uses Xcelerator portfolio of software and Totally Integrated Automation (TIA)**

VinFast, Vietnam's first volume car manufacturer, has successfully produced its first cars ahead of schedule using Siemens' portfolio of integrated software and hardware. By deploying its portfolio, Siemens helped VinFast achieve its automotive production timeline for building the factory, car design and start of the production in only 21 months, well ahead of an already ambitious schedule. This is half of the average time to build such a manufacturing plant. The VinFast plant in Hai Phong went live in June 2019 and has a total design capacity of 250,000 cars per year. The first vehicles have been E-Scooters, compact cars, sedans, and SUVs. These will be followed by battery electric passenger cars as well as electric buses.

The entire value chain has been integrated and digitalized with Siemens' Digital Enterprise portfolio, which includes the Xcelerator portfolio of software and Totally Integrated Automation (TIA). Xcelerator enables creation of the most accurate digital twin, melding model-based simulations with test data and real performance analytics with intelligent edge control. VinFast is using Teamcenter software as backbone of collaboration for product lifecycle management and NX software, a leading integrated solution for computer-aided design, manufacturing and engineering (CAD/CAM/CAE), to develop the digital twin of cars and production. Teamcenter connects the digital twin with a consistent digital thread, which is helping VinFast increase speed and flexibility in development, optimize manufacturing processes and use the insights gained from product and plant operations to improve future performance. VinFast has also implemented Siemens Opcenter software (formerly Simatic IT Unified Architecture) to increase production speed and quality. This MES solution supports closed-loop manufacturing by driving real-time production data to the digital twin of product and enables innovation of product design and production operations.

Automation is realized by the modular and flexible automation concept Totally Integrated Automation (TIA), that controls and drives all productions. VinFast deployed Siemens' automation equipment for its manufacturing lines in all shops: press shop, paint shop, body shop, assembly shop, sub-assembly- and engine shop. Simatic Controllers enable VinFast to automate factory operations such as robots or conveyor lines, including safety functionality. VinFast uses the engineering framework TIA Portal to program automation tasks from the press shop through to the final assembly. Simatic HMI's are widely used in the factory, allowing VinFast to operate and observe the status of machines and entire systems for the production staff. Using Siemens' Industrial Identification products, VinFast can track and trace parts and optimize the entire flow of materials. In addition, Sinumerik controls guarantee highest efficiency and quality in their powertrain machinery. Further portfolio provided by Siemens features network components, power supplies, control products, low voltage distribution and switchgears, an energy distribution system as well as motors and drives. The comprehensive automation components from Siemens enable VinFast to build up the factory with high quality of global standards.

“VinFast and their new production site are a great example of how the automotive industry is driving the digital transformation of manufacturing,” says Bernd Mangler, Senior Vice President Automotive Solutions at Siemens Digital Industries. “We are proud that we contributed with our offerings to create the virtual and real production lines including the technology for continuous optimizations along the entire lifecycle of the equipment – and of course, all had to happen in record speed.”

VinFast is under Vingroup - the largest private enterprise and one of the leading technology, industry and service groups in Vietnam. More information at: <https://vinfast.vn/en/about-us>



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For further information, please see www.siemens.com/automotive and www.siemens.com/vinfast

Contact for journalists

Mrs. Duong Huong Ly

Director of Communications

Siemens Limited

Email: duong-huong.ly@siemens.com

Siemens Digital Industries (DI) is an innovation leader in automation and digitalization. Closely collaborating with partners and customers, DI drives the digital transformation in the process and discrete industries. With its Digital Enterprise portfolio, DI provides companies of all sizes with an end-to-end set of products, solutions and services to integrate and digitalize the entire value chain. Optimized for the specific needs of each industry, DI's unique portfolio supports customers to achieve greater productivity and flexibility. DI is constantly adding innovations to its portfolio to integrate cutting-edge future technologies. Siemens Digital Industries has its global headquarters in Nuremberg, Germany, and has around 75,000 employees internationally.

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 €83.0 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.