

SIEMENS UNLOCKS the potential of digitalisation

Digital transformation is paving the way for innovation, services, and new data-based business models – and Siemens stands ready to throw its full range of industry-leading portfolio behind businesses' digital transformation. Dr. **Pham Thai Lai**, president and CEO of Siemens ASEAN and Vietnam, writes about the company's strong support to its customers in unlocking the full potential of digitalisation for their businesses.



The Siemens Digital Enterprise holistic approach comprises of offerings for product design, production planning, plant design, production engineering, automation, commissioning, and services. Suppliers and logistics can also be integrated based on a consistent collaboration platform. Companies can start with digitalisation at any step of their value chain, for greenfield and brownfield plants, and based on standardised and open interfaces.

The Siemens Electronics Works (EWA) digital factory in the German city of Amberg is a prime example. Whether it is optimised throughput, ambitious cycle times, or reliable security measures, the future of manufacturing is already a reality in many areas of the EWA thanks to numerous solutions from the Digital Enterprise portfolio.

The EWA was founded in 1989 and manufactures products that include Simatic programmable logic controllers. Every year, the factory manufactures around 17 million Simatic products, meaning that one product is dispatched every second. Over 1,000 product variants are manufactured

there and are used to control plants and machinery as well as automate production facilities – saving time and costs and improving product quality.

Production processes at Amberg itself are also controlled by about 2,800 Simatic components. Production functions on a largely automated basis, with 75 per cent of the value chain handled independently by machines and robots. In any 24-hour period, products are prepared for dispatch to approximately 60,000 customers worldwide. EWA manufactures to a quality standard of 99.999 per cent and, as the result of sustainable work quality and comprehensive data integration, this achievement sets a new benchmark for industrial production.

At EWA, hardware and software solutions, industrial communication, cybersecurity, and services are optimally coordinated. Ground-breaking technologies such as AI, industrial edge computing, and a cloud solution are already enabling highly flexible and extremely efficient and reliable production sequences. This makes EWA a strong example of a Siemens Digital Enterprise that will continue to consistently lead the way towards future digital transformation.

The most significant impact of digitising the factory floor at Amberg is that productivity has risen by 1,400 per cent, and this success story can be replicated elsewhere around the globe, including in Vietnam.

Now let's talk about VinFast. Being Vietnam's first volume car manufacturer, VinFast has successfully produced its first cars ahead of schedule using Siemens' portfolio of integrated software and hardware. The entire value chain has been integrated and digitalised with Siemens' Digital Enterprise portfolio.

In particular, VinFast has selected a suite of tools from Siemens PLM (product lifecycle management) Software to help realise their plans for next-generation automotive and transportation design. Siemens has provided a digitalisation solution across the entire automotive original equipment manufacturer (OEM) value chain, which enabled VinFast to meet the company's goals of creating the first Vietnam-made automobile brand, as well as to promote the

development of the industrial and manufacturing sector in Vietnam.

VinFast benefits from a connected digital twin across both design and manufacturing. They used an integrated digital platform including the Teamcenter portfolio for digital lifecycle management, the Teamcenter solution for product costing to support cost and value engineering, and the Tecnomatix portfolio, the industry-leading digital manufacturing software, combined with SIMATIC IT UA for Discrete Manufacturing covering the MES (Manufacturing Execution System) layer.

Teamcenter connects the digital twin with a consistent digital thread, which helped VinFast increase speed and flexibility in development, optimise manufacturing processes and use the insights gained from product and plant operations to improve future performance.

Meanwhile, Truong Hai Auto Corporation (THACO) – an established auto manufacture, assembly, and distribution enterprise in Vietnam – has been a valued Siemens customer for many years. THACO, with 14,900 employees and distribution system of 89 showrooms and 53 dealers nationwide, has deployed Siemens PLMTeamcenter, Siemens integrated computer-aided design, manufacturing and engineering analysis (CAD/CAM) solution, Simcenter 1D and 3D, and the Siemens LMS Test to build up the corporation's research and development centre.

Last but not least, the partnership between Cosmos and Vietbay, a Siemens Digital Industries Software partner, led to the implementation of NX software solutions. Through the use of NX, Cosmos digitalised part of the manufacturing process – from CAD models to finished parts. The integrated CAD/CAM solution helped improve production efficiency by 50 per cent, while increasing quality and reducing costs.

At Siemens, we are well aware that each company has specific needs and requirements that need to be acknowledged individually. Therefore, our Digital Enterprise portfolio is specifically tailored to suit the individual needs of the various industries. We can help to maximise the journey toward digitalisation and Industry 4.0 by unlocking the full potential of digitalisation for all.



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