

Accelerated production setup for Covid-19 vaccine with Siemens automation and digitalization solutions

- **Siemens supports BioNTech in converting to vaccine production at the Marburg plant**
- **Key parts of the new Manufacturing Execution System ready to use after only two and a half months**
- **Digitalization enables paperless documentation of production**

The BioNTech SE biotechnology company based in Mainz has converted an existing facility in Marburg for the production of the Covid-19 vaccine in a record time with assistance from Siemens. The production plant has been producing the active substance since February and the vaccine BNT162b2 (also known as COMIRNATY®) since the end of March. BioNTech acquired a production facility for this in the fall of 2020 that was already equipped with capabilities for producing biotechnological substances. Through collaboration with Siemens and the team of experts on site in Marburg, the project timeline for converting the existing facility for the production of mRNA-vaccine was cut from around one year down to five months, whereby the implementation of key parts of the new Manufacturing Execution System (MES) was reduced to two and half months. The new system and end-to-end digitalization of production enable conversion to “paperless documentation of production”, which can immediately fulfill all documentation requirements.

The entire process flow is controlled using Siemens products: The Opcenter Execution Pharma MES is used to orchestrate subsystems and processes and to analyze their quality. Production processes can be automatically developed, optimized and managed. mRNA processes encompass a number of manual work steps, such as weighing, which can now be performed by Siemens weighing systems, as precise measurement of weight is vital for product quality. All systems were modified for automation using the Simatic PCS 7 process control system,

which controls and regulates the system processes. Other products used include network technology, WLAN access points, communication technology and the TIA Portal engineering framework. Siemens supports system implementation for production startup at BioNTech with in-depth service and on-call readiness. Siemens and BioNTech enjoy a long tradition of partnership collaboration and have intensified their cooperation for Covid-19 vaccine production.



The BioNTech SE biotechnology company based in Mainz has converted an existing facility for the production of the Covid-19 vaccine in a record time with assistance from Siemens (Picture: © BioNTech SE 2020, all rights reserved).

This press release and a press photo are available at <https://sie.ag/3mxFyq2>

More information about this is available at

<https://new.siemens.com/global/en/markets/pharma-industry/covid-19.html>

Contact person for journalists

Julia Kauppert

Phone: +49 (174) 311-8098; E-mail: julia.kauppert@siemens.com

Follow us on **social media**

Twitter: www.twitter.com/siemens_press und <https://twitter.com/siemensindustry>

Blog: <https://ingenuity.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 76,000 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. Active around the world, the company focuses on intelligent infrastructure for buildings and distributed energy systems and on automation and digitalization in the process and manufacturing industries. Siemens brings together the digital and physical worlds to benefit customers and society. Through Mobility, a leading supplier of intelligent mobility solutions for rail and road transport, Siemens is helping to shape the world market for passenger and freight services. Via its majority stake in the publicly listed company Siemens Healthineers, Siemens is also a world-leading supplier of medical technology and digital health services. In addition, Siemens holds a minority stake in Siemens Energy, a global leader in the transmission and generation of electrical power that has been listed on the stock exchange since September 28, 2020. In fiscal 2020, which ended on September 30, 2020, the Siemens Group generated revenue of €57.1 billion and net income of €4.2 billion. As of September 30, 2020, the company had around 293,000 employees worldwide. Further information is available on the internet at www.siemens.com.