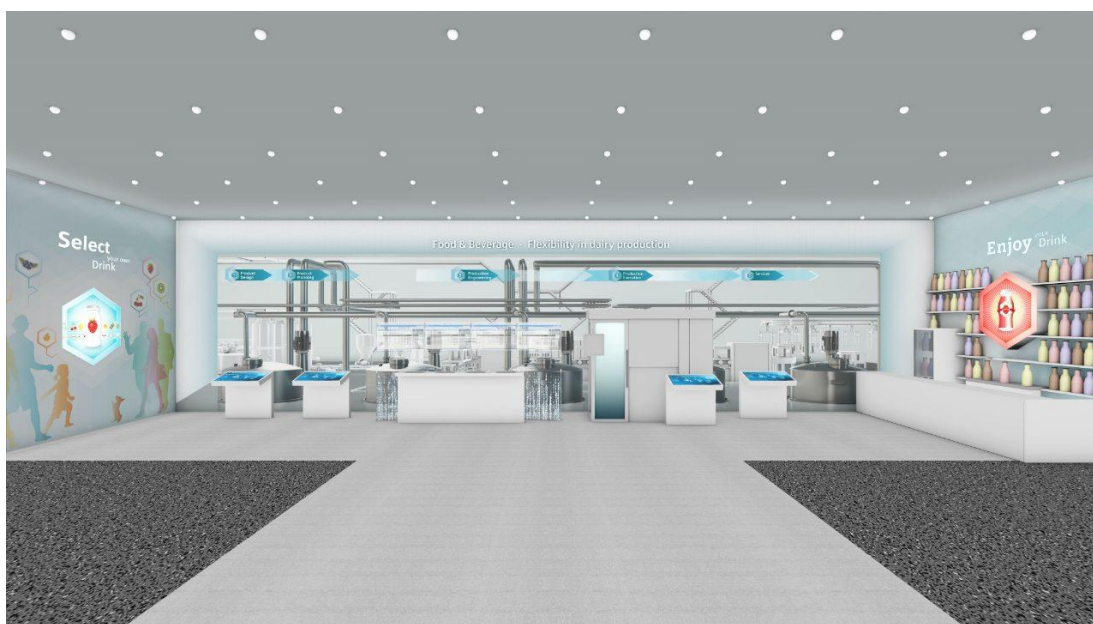


Hanover, April 24, 2017

Hannover Messe 2017, Hall 9, Booth D35

## Customized products ready for mass production

The Food and Beverages showcase at the Siemens booth at Hannover Messe 2017



High cost-sensitivity and mass production as well as a growing variety of flavors and innovative packaging are trends we see today in the dairy industry. At first glance, digitalization may not seem to play much of a role in the food and beverage industry – but this may be deceptive. At Hannover Messe 2017, from April 24 to 28, Siemens will be using the example of the dairy sector to demonstrate that both process and discrete workflows in the food and beverage industry can benefit from digitalization. The Siemens portfolio for digitalization solutions is called the Digital Enterprise. Following the motto “Discover the value of the Digital Enterprise,” the showcase for the food and beverage industry lets visitors experience the practical application of digital tools in seamless interaction with our automation hardware.

Trade visitors will have the opportunity to find out just how individual dairy products can be. Until recently, we’ve seen different flavors in dairy products – like yogurt and

milkshakes – created by the manufacturer. However, the endless possibilities of digitalization may enable the consumers themselves to design products and packaging according to their own tastes. Siemens provides a glimpse into the future of milk processing – from the product idea to actual production, from bottling to packaging and labeling – using data and end-to-end automation. The company uses special software to produce digital twins of the dairy products, plants, and production lines to simulate and optimize the workflow at a variety of stations. The showcase begins with the creation of a recipe for a new milkshake using the Simatic IT R&D Suite and package design by Teamcenter NX. Moving on, the demo then looks at production planning and the benefits that plant operators and mechanical engineers can enjoy with Comos and Tecnomatix Plant Simulation engineering tools combined with the TIA Portal. This allows the entire plant and its operations to be simulated and tested.

Plant engineering is built on the foundation of production planning. In this phase, Siemens engineers all mechanical and electrical components as well as the automation steps in detail. Integrated workflows can increase engineering efficiency both for the production process and for bottling and packaging in discrete production plants. This shortens the time to market for new products. Two main approaches are common in engineering: either a comprehensive top-down approach, which involves central engineering of the entire plant, or a machine-oriented bottom-up approach, which follows the integration of individual machines in the plant.

Siemens offers the Simatic PCS 7 process control system for the top-down approach: It can simulate the entire lifecycle, from integrated engineering to integrated operation, in conjunction with the Comos engineering tool and the Simit simulation framework. For the bottom-up approach, which is suitable for both the production process and for bottling and packaging, Siemens offers its Simatic PLC, TIA Portal, and Scada systems as a comprehensive environment for all engineering tasks.

Both approaches ensure universal digitalization of the engineering process. Finally, digital twins allow for virtual commissioning, so that all previous development steps can be efficiently validated.

The next step moves from virtual planning to real-life operation. Simatic IT forms the bridge to actual production. Siemens shows how production is controlled with the help of its Manufacturing Operations Management software, and how it helps customers respond quickly to changing market requirements. The degree of personalization making digitalization possible in the food and beverage industry becomes clear when viewing a demo machine from KHS. This machine can print on a PET bottle directly and flexibly. Visitors will also learn how to display and evaluate relevant KPIs for the production line and process phase using specific apps based on the cloud-based, open IoT operating system MindSphere.

Highlights of the milk-processing demonstration at the Siemens booth offer a hands-on experience of how digitalization increases flexibility and facilitates the creation of personalized products in customized mass production. The food and beverage industry can reap significant benefits from increased flexibility that would not be possible without digitalization. These advances will also benefit consumers, who may look forward to an unprecedented range of flavors and packaging designs that they can create themselves.

This background information and further material are available at [www.siemens.com/press/pool/de/events/2017/digitalfactory/2017-04-hannovermesse/background-food-beverage-e.pdf](http://www.siemens.com/press/pool/de/events/2017/digitalfactory/2017-04-hannovermesse/background-food-beverage-e.pdf)

For further information on Siemens at the Hannover Messe 2017, please see [www.siemens.com/press/hm17](http://www.siemens.com/press/hm17) and [www.siemens.com/hannovermesse](http://www.siemens.com/hannovermesse)

Follow us on **Social Media**

**Twitter:** [www.twitter.com/siemens\\_press](https://twitter.com/siemens_press) and [www.twitter.com/SiemensIndustry](https://twitter.com/SiemensIndustry)

**Blog:** <https://blogs.siemens.com/mediaservice-industries-en>

**Siemens AG** (Berlin and Munich) is a global technology powerhouse that has stood for engineering excellence, innovation, quality, reliability and internationality for more than 165 years. The company is active in more than 200 countries, focusing on the areas of electrification, automation and digitalization. One of the world's largest producers of energy-efficient, resource-saving technologies, Siemens is a leading supplier of efficient power generation and power transmission solutions and a pioneer in infrastructure solutions as well as automation, drive and software solutions for industry. The company is also a leading provider of medical imaging equipment – such as computed tomography and magnetic resonance imaging systems – and a leader in laboratory diagnostics as well as clinical IT. In fiscal 2016, which ended on September 30, 2016, Siemens generated revenue of €79.6 billion and net income of €5.6 billion. At the end of September 2016, the company had around 351,000 employees worldwide. Further information is available on the Internet at [www.siemens.com](http://www.siemens.com).