



Technifutur® asbl

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Hanover Messe

1 & 2 April 2019

**HANNOVER MESSE**  
**1 – 5 April 2019**  
**Hannover • Germany**



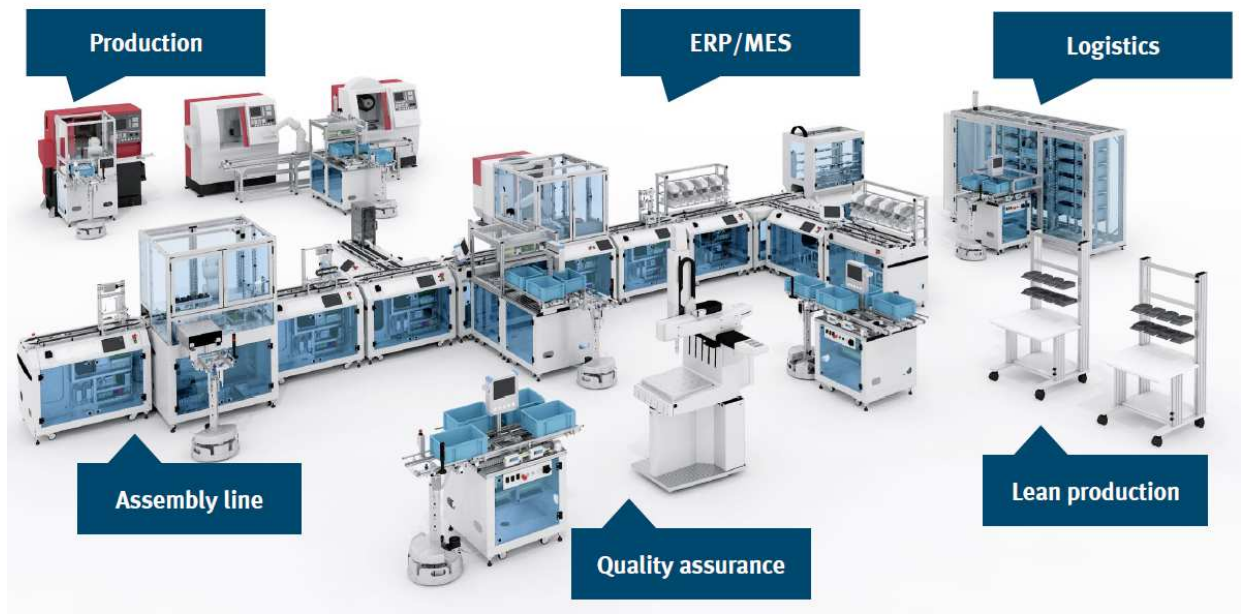
**TECHNIFUTUR**  
CENTRE DE COMPETENCES

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## 1. CP Factory Festo

The purpose of the factory is to test and develop the technologies and methods used in digitalisation and network formation and taught to the skilled workers of the future at companies, universities and vocational colleges. The CPS Gate functions within the factory's work stations as the elementary module for controlling the processes. It communicates in the network with the connected IT systems (ERP) and the production management system (MES) as well as all production-relevant data of the products being processed.



Technologies on the CP factory (Cyber physical factory)

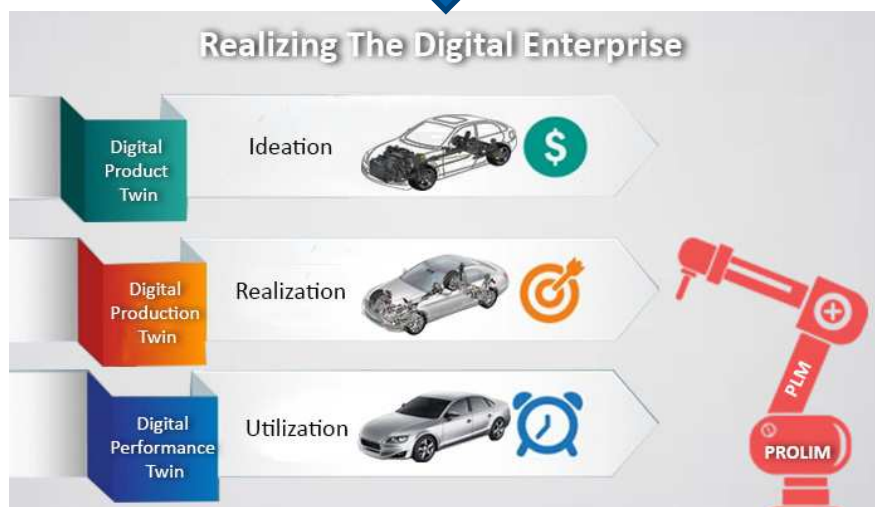
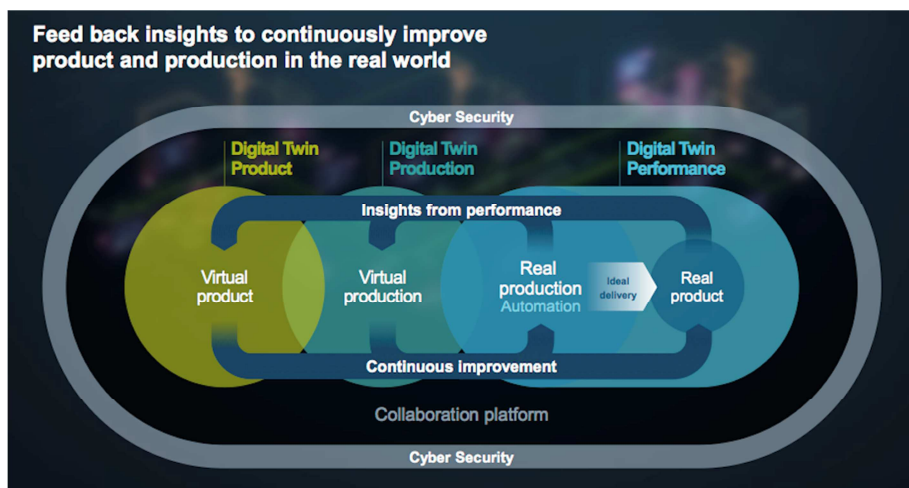
- Big Data analytics
- Collaborative robots
- IT security
- Smart Maintenance
- Augmented and virtual reality
- Artificial intelligence
- Lean
- Internet of things
- Cyber security
- Cloud computing, ....

## 2. Siemens Digital twin

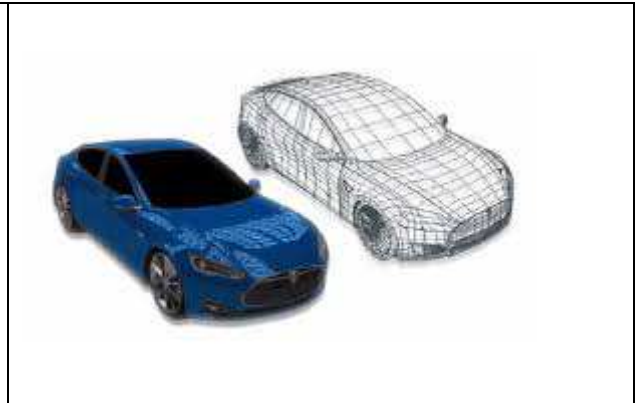
A digital twin is a virtual representation of a physical product or process, used to understand and predict the physical counterpart's performance characteristics. Digital twins are used throughout the product lifecycle to simulate, predict, and optimize the product and production system before investing in physical prototypes and assets.

Following Siemens, we have three kinds of digital twin

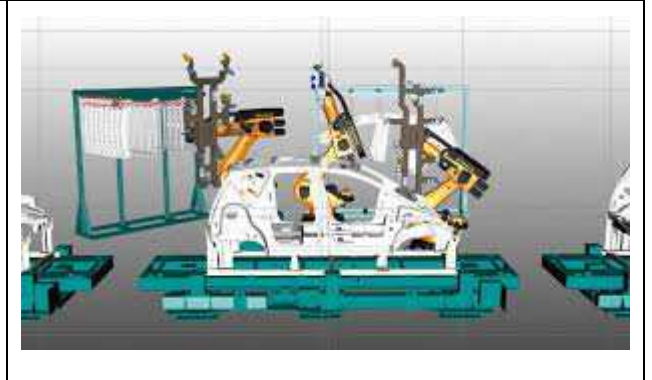
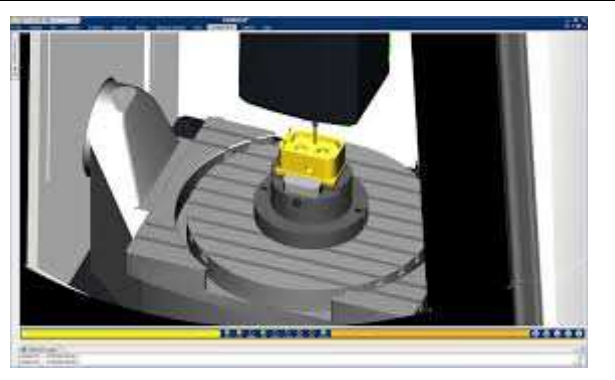
- A digital twin of a product
- A digital twin of a production
- A digital twin of the performance



**Digital twin of a product**



**Digital twin of a production**



**Digital twin of performance**



### 3. Lightweight

#### Examples of lightweight









#### 4. Fuel cells



5. German Bionic



