

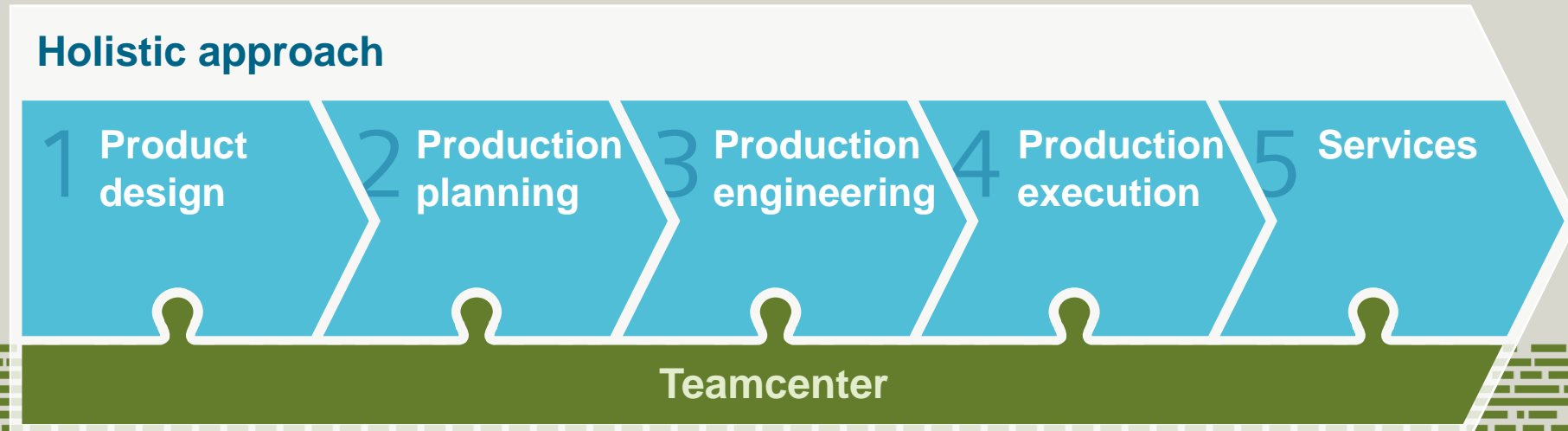
IOT: A Revolution on the Factory Floor

Raj Batra, President, Digital Factory Div. Siemens USA
CEO Executive Summit, May 16, 2017

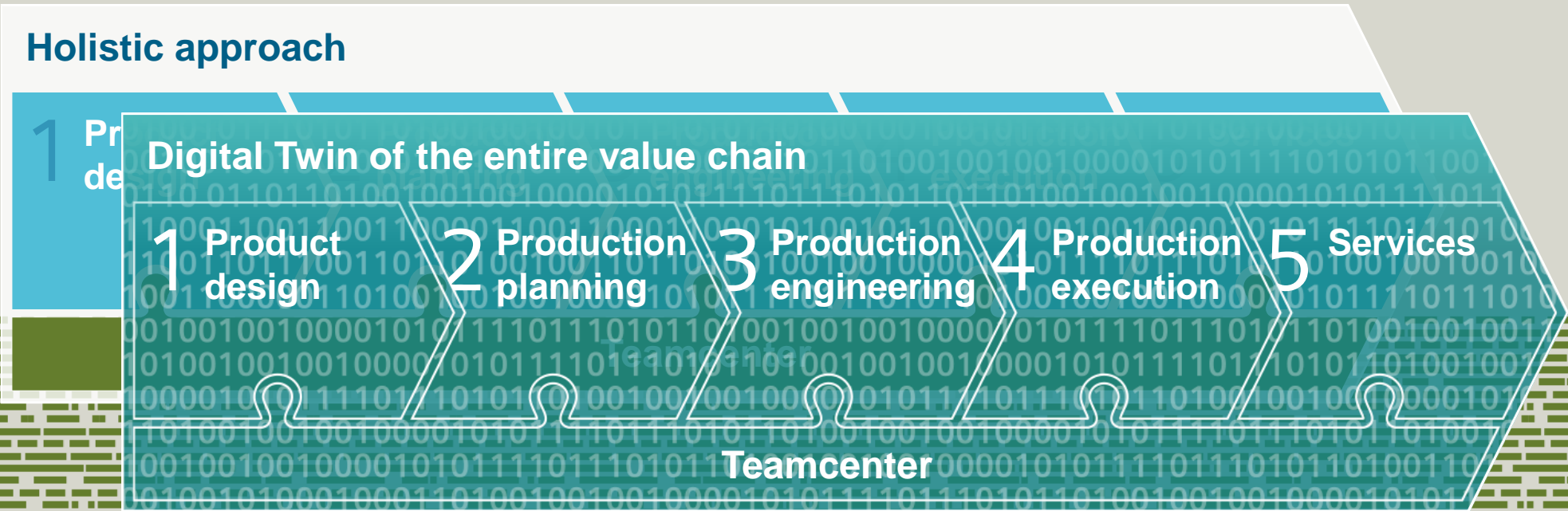
Digitalization changes everything

- 1 trillion connected devices by 2030
- 25% of the world's economy by 2020
- Half the world's data - less than 1 year old

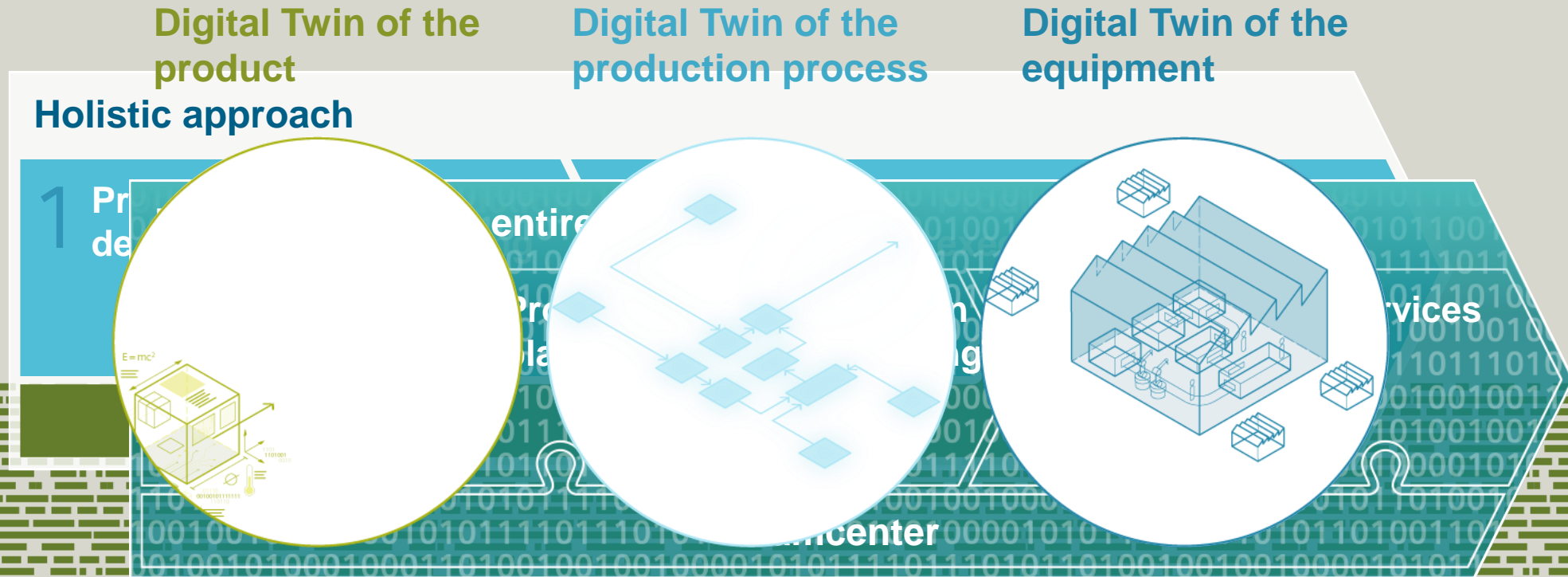
Integrating and digitalizing the entire value chain
is key to staying competitive in the future



Creating a Digital Twin of the entire value chain

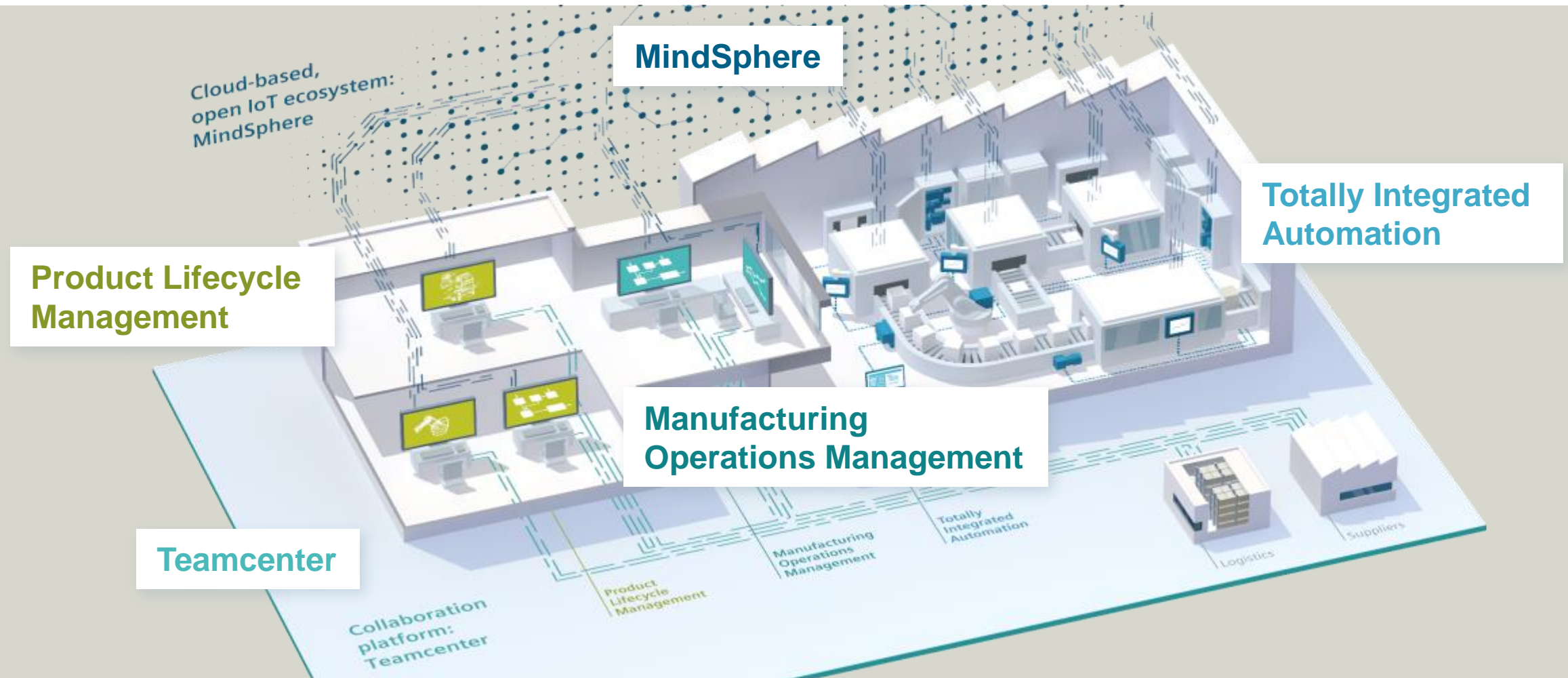


Integrating technical domains into one data model



Mapping out the digital enterprise with technologies that exist today

SIEMENS
Ingenuity for life



A visionary approach for the digital enterprise based on deep domain expertise in manufacturing and strong R&D

Investing in the future of manufacturing

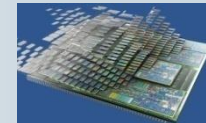
- \$10 B in automation and software acquisitions since 2007
- \$5 B annual expenditures on R&D globally
- 32,000 R&D empl. (17,500 software eng.)

Totally Integrated Automation (TIA)/
No. 1 in automation

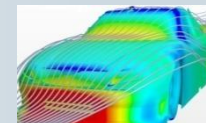
Comprehensive portfolio
for Industry 4.0

Digital Enterprise

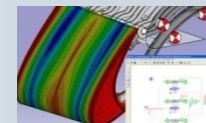
Mentor Graphics EDA Software



CD-adapco CAE software
e.g. flow dynamics



LMS 3D simulation
e.g. reinforcement simulation



UGS PLM Software



Bentley Cooperation with Bentley Systems

1996

2017

Digital Enterprise

Industry 4.0 from Siemens

Industrial software
and automation



Industrial communication



Industrial security



Industrial services



MindSphere –
the cloud-based,
open operating system
for the Internet of Things



Customized production – adidas and Siemens cooperate on SPEEDFACTORIES



Innovation partnership: adidas – Siemens

adidas

- Will in the future offer its customers sporting goods tailored to specific customer requirements
- Flexible production of highly functional and individual products – faster than ever before!

Siemens

- Simulates the entire value chain – before the first seam is made
- Automates production

Customized production at the customer's request: Shorter time to market/greater flexibility/better quality/higher efficiency



Photo: adidas

Digitalization can work for companies of all sizes



Newport News Shipbuilding

- High complexity
- Massive scale
- Long product lifecycle



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