Combining the physical and digital worlds – platform strategies at work

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MIT Platform Summit, July 2020
Industrie 4.0

Industrie 3.0

Industrie 2.0

Industrie 1.0

Digitalization – Cyberphysical systems

Electronics and IT – Automation of manufacturing

Electricity – Introduction of assembly line

Founding of Siemens

Steam power – Shift from manual to mechanical production
The industrial Internet of Things will unleash the next era of growth and innovation by combining the physical and the digital worlds.
Potential economic impact of up to $11 trillion per year in 2025. B2B applications account for 70%.

Source: McKinsey, Unlocking the potential of the Internet of Things
The industrial Internet of Things will trigger the next era of growth and innovation by combining the physical and digital worlds.

**Industry**

60% of manufacturing tasks could be automated improving productivity, quality and safety.


**Infrastructure**

80% of the lifecycle costs are in the operations phase. The possibility to influence the costs is the highest in the planning phase.

**Mobility**

20% potential increase of transport capacity w/o building new physical infrastructure.

20% potential increase of transport capacity w/o building new physical infrastructure.
Systematic expansion of software and automation portfolio

€10 billion investment in acquisitions of software companies
Multiple actors from three different groups all are competing for the attractive market.

**Traditional players**
Building strategic networks to expand offering & enable end-to-end solutions

**Tech companies**
Positioning themselves as IoT/digitalization partner for major vertical industries

**Consulting firms / System integrators**
Expanding into attractive and fragmented IoT domain

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Siemens - a digital Champion for Industry and Infrastructure
Unleash new customer value by combining the physical and digital worlds in all served markets

Digital world

Physical world

Combining the physical and digital worlds

- Automotive
- Machine Building
- Food & Beverage
- Pharma
- Chemicals
- Additive Manufacturing
- Cranes
- Logistic
- Buildings
- Campus
- Hospitals
- Energy Distribution
- Rail
- Airports
- Process Plants
- Oil & Gas

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How can we **scale B2B platforms** learning from B2C platforms?
Deep **domain knowhow**, a strong **technology stack** and powerful **ecosystems** are the key...

to combine the physical and digital words
Traditional networks are our core…

Platform ecosystems are our future
Evolution of our market from core to incremental SW capabilities and connected systems

Core Markets

- **Integration software**
  - >120,000 TIA portal licenses sold
  - 31% growth
- **Low-code software**
  - 120,000+ developers on Mendix

Vertical Software

- **Integrated automation portal**
  - >120,000 TIA portal licenses sold
- **PLM software**
  - >9 million licensed seats for PLM SW worldwide

IoT Market

- **IoT platform for workplaces and smart buildings**
  - Comfy - Smart Buildings IoT for a safe return to office
- **Low-code software platform**
  - 120,000+ developers on Mendix

Ecosystem for Mobility

- **Ecosystem for Mobility**
  - Railigent - IoT ecosystem for Mobility

Industrial Edge

- **Industrial Edge**
  - Emerging Industrial Edge ecosystem

Industrie 3.0

- Automation systems
  - 45 million installed

Industrie 4.0

- **45 million installed**
  - 3.2% growth

*) Market size 2019 and average growth 2019 to 2024
Safe return to office
Using IoT native **Enlighted** and cloud native **Comfy** platforms in times of COVID-19 and beyond

**Heatmaps**
- Keep occupancy limits

**Contact tracing**
- Identify interactions with those confirmed COVID-19 infections

**Transparency**
- Monitor density & safe distancing

**Booking**
- Ensure compliant work during social distancing

**Information**
- Provide COVID-19 updates for all employees
Safe return to office

Siemens and Salesforce combine their value add of key technologies, helping our customers to reopen safely.
Railigent – An open platform ecosystem integrating best-in-class rail applications
Efficient maintenance

Outcome as a service
Insights as a service
Software as a service
Managed service

100% availability

Railigent platform

Apps

Data

Rolling stock
Signaling
Infrastructure

VOITH
SKF
Strukton Rail

voestalpine SIGNALING
NEM solutions
KNORR BREMSE
DC
igus
Ginkgo
DMA
KONUX
XPLUS
FRAUSCHER
LNK
WI-TRONIX
perpetuum
Low-code App platform Mendix
Build applications 10x faster with 70% less resources

130+ universities
120,000+ developers
150+ integration partners

750+ customers across 25 industries

Suppliers
Customers
Operators
Marketing and Sales
Other departments

Field service Technicians
Engineers

Apps
Existing Systems

Excel replacement apps
Workflow apps
Engineering apps
Portal apps
Dashboard and reporting
IoT apps
Mashup apps

Mobile apps
SAP
Salesforce
Oracle
Microsoft

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Let’s restart together and shape a more sustainable and resilient economy
Thank you!