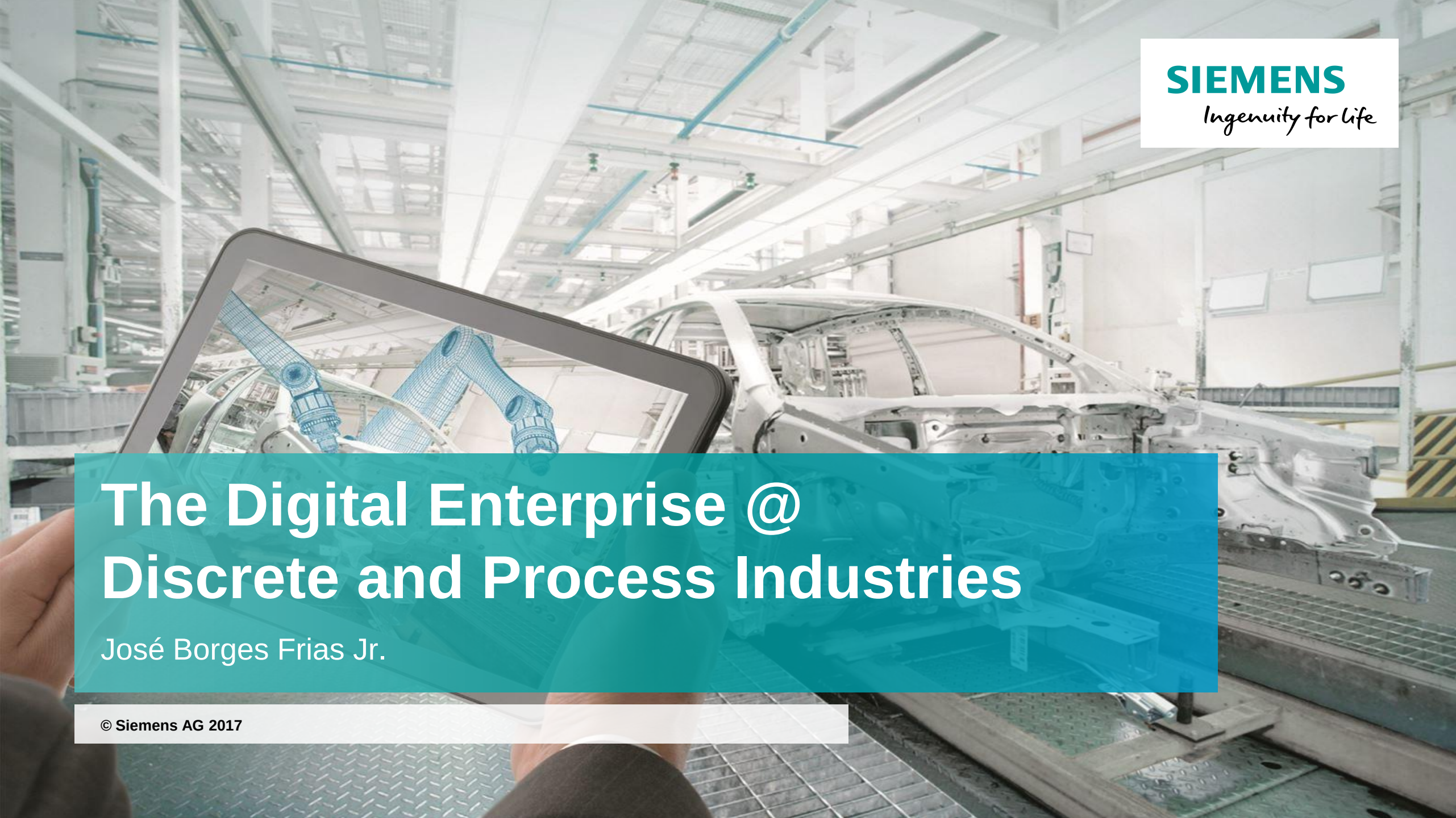

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Ingenuity for life

The Digital Enterprise @ Discrete and Process Industries

José Borges Frias Jr.

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Digitalization changes everything

This increases pressure
on industrial enterprises.

Generating customer benefits is our key priority

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Industry demands

Efficiency

- Resource and energy efficiency
- Demanded product/quantity
- …

Flexibility

- Individualized mass production
- Volatile markets
- …

Quality

- Closed-loop quality
- Traceability
- …

Time-to-market

- Fast innovation
- More complex products
- Lifecycle Management
- …

Security

HSSE – Health & Safety | Environment | Regulations/Standard | …

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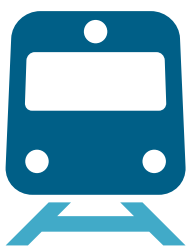

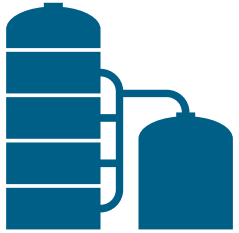

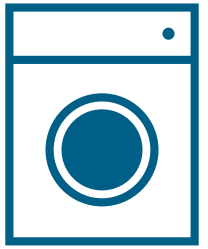
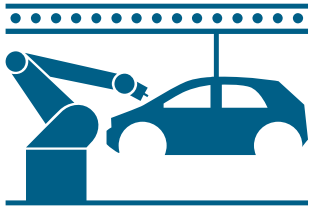

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Simply focusing on the automation aspect of manufacturing is not enough.

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Digitalization is the next level of productivity

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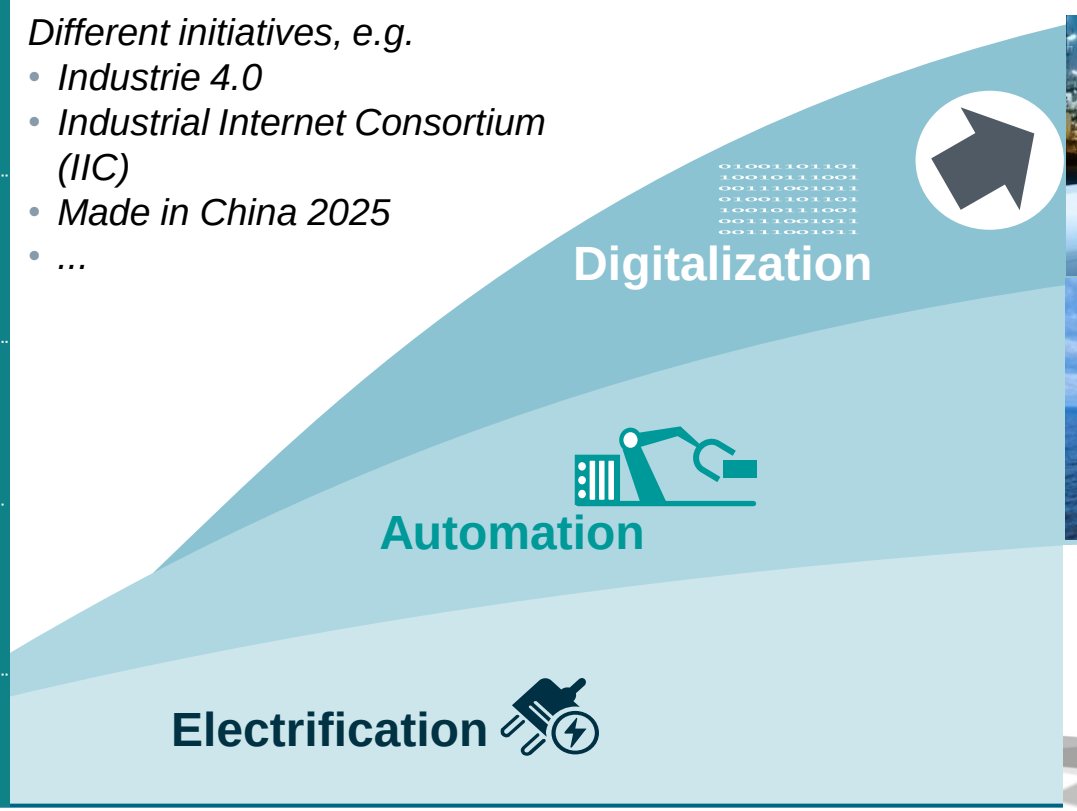
Electrification, Automation and Digitalization as levers to increase productivity

Global trends

- Digitalization
- Globalization
- Urbanization
- Demographic change
- Climate change

Different initiatives, e.g.

- *Industrie 4.0*
- *Industrial Internet Consortium (IIC)*
- *Made in China 2025*
- *...*



Next level of productivity

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

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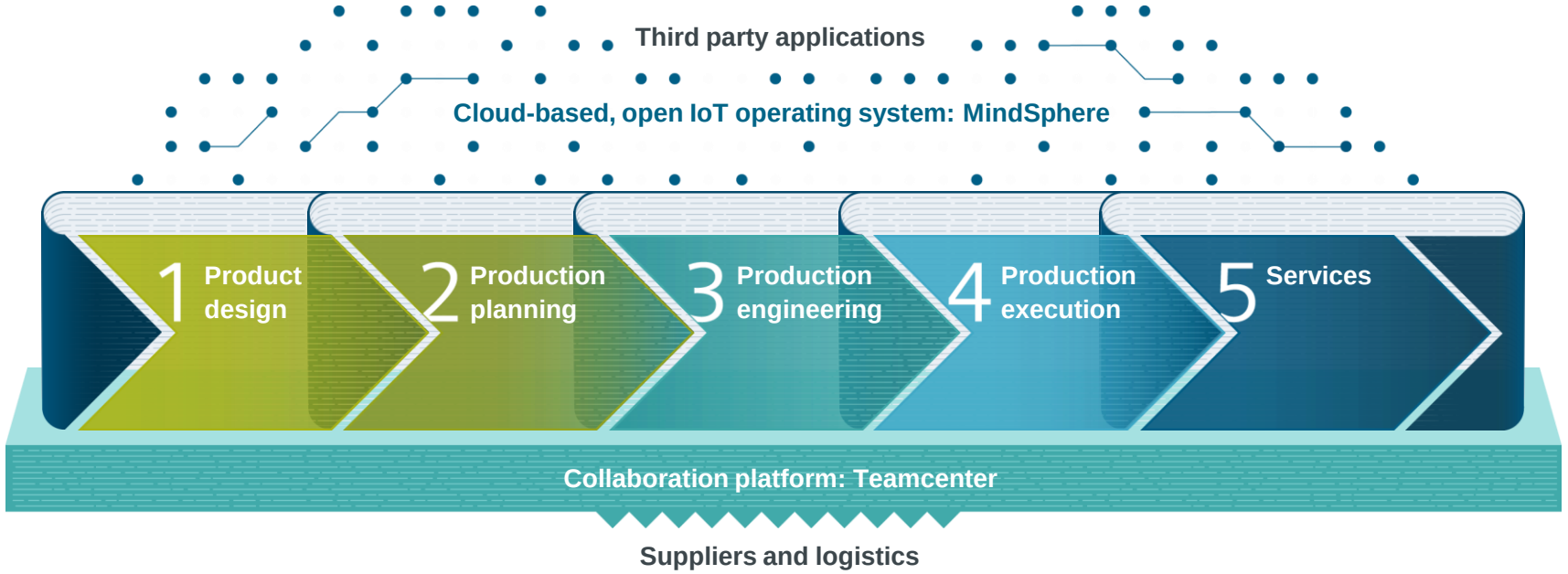

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Integrating and digitalizing the entire value chain is key to staying competitive in the future

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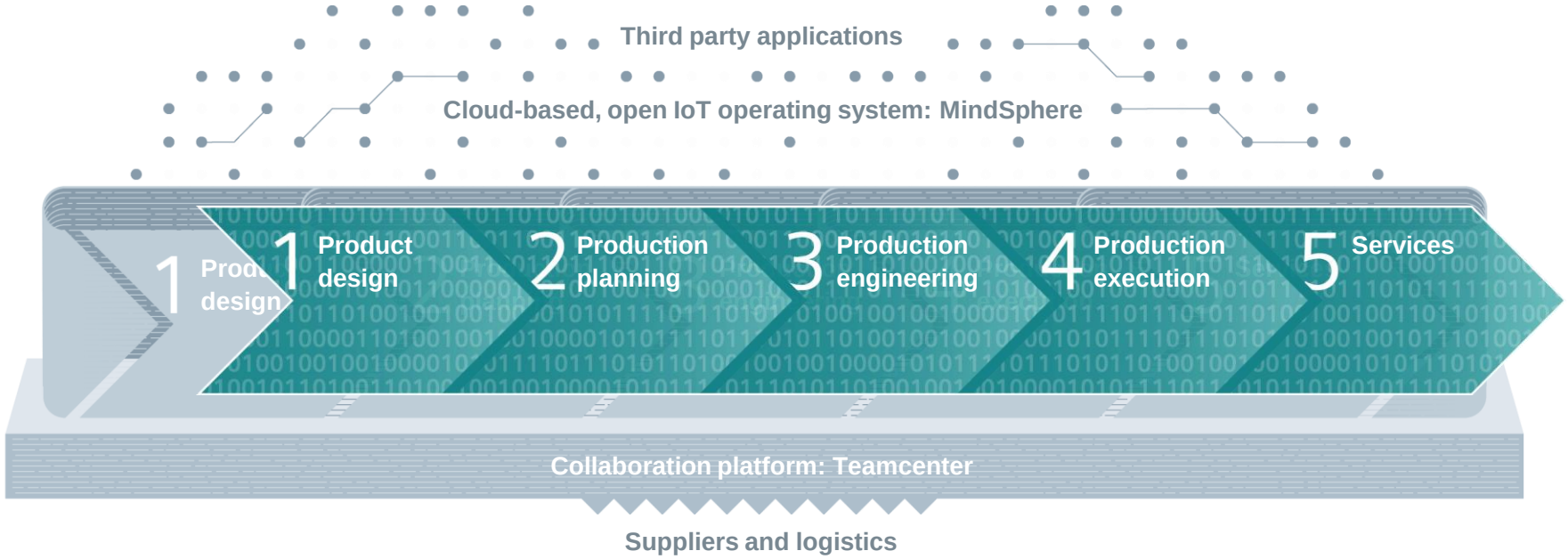

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Addressing the challenges through digitalization …

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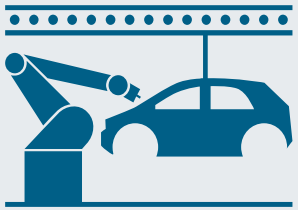
Paving the way to the Digital Enterprise

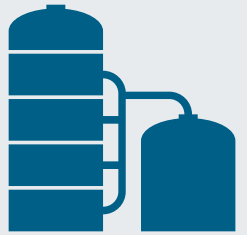
- Efficiency
- Flexibility
- Quality
- Time-to-market
- Cyber Security

DIGITALIZATION

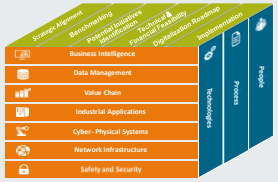
Digital Enterprise @ Discrete



Digital Enterprise @ Process



Get ready: Digitali-zation Masterplan



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Integração de domínios técnicos em um único modelo de dados

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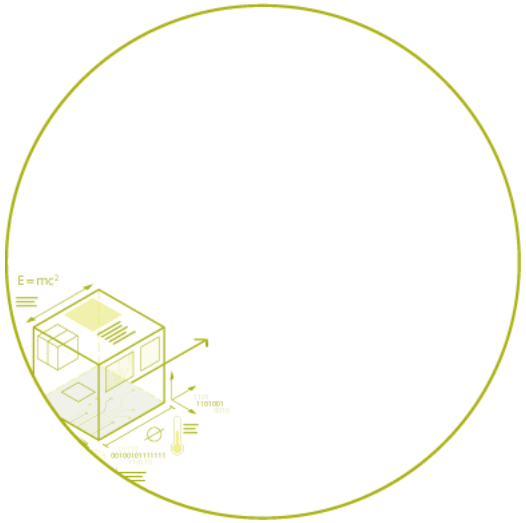
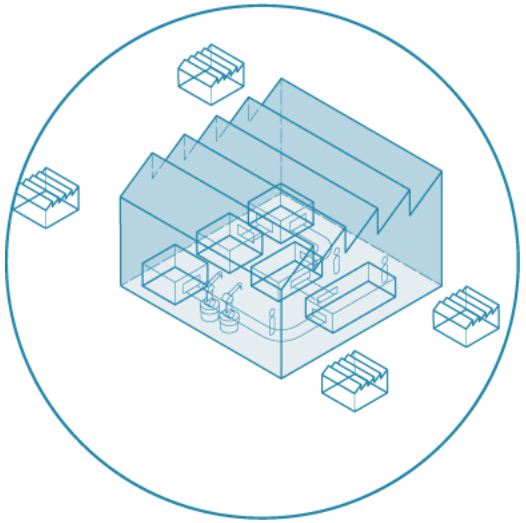
Gêmeo digital do produto



Gêmeo digital do processo produtivo

Gêmeo digital do equipamento



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Publishing the optimized Digital Twin to all stakeholders, including suppliers, with the collaboration platform Teamcenter

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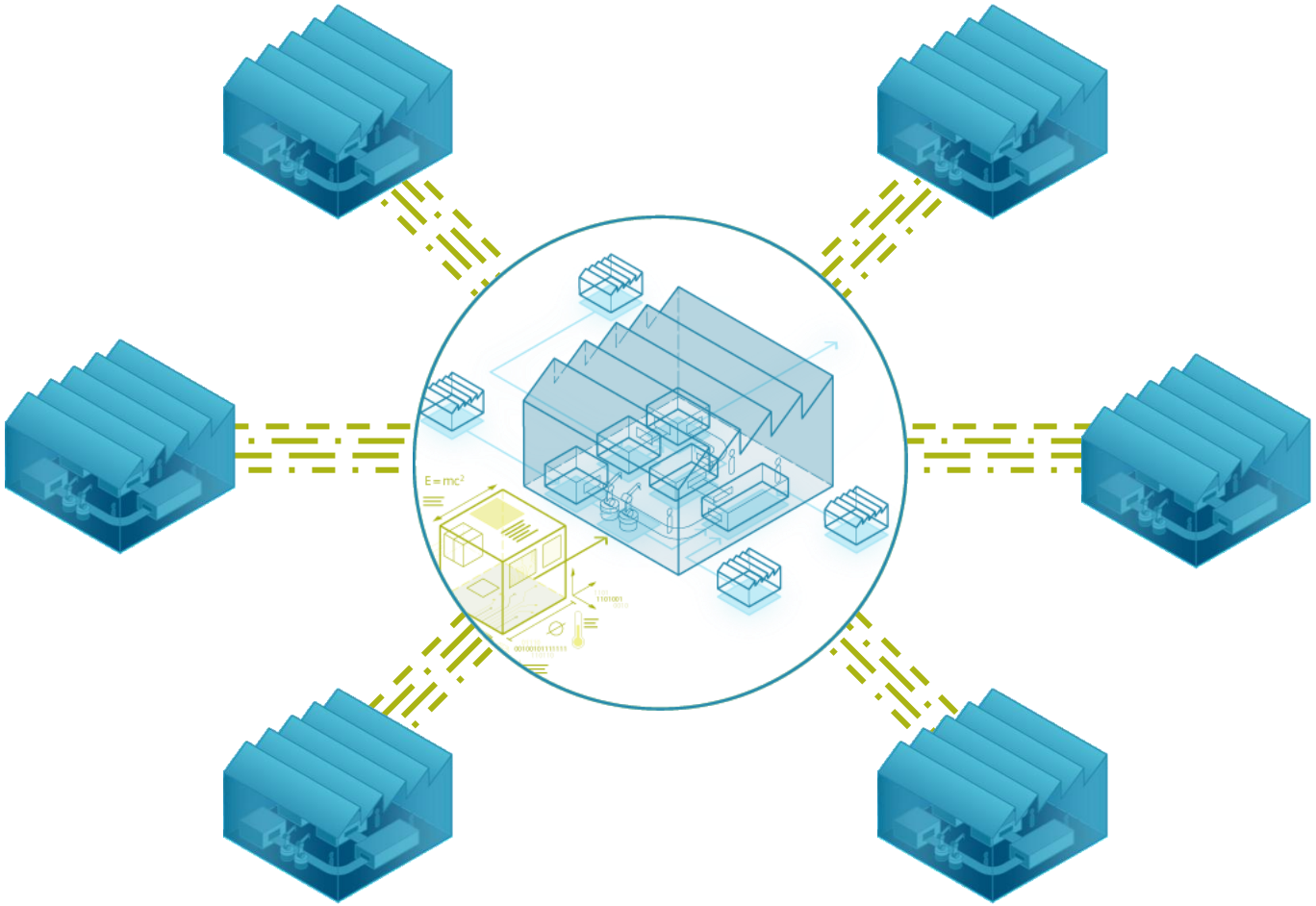

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Our holistic approach
Specific for end customers and machine builders

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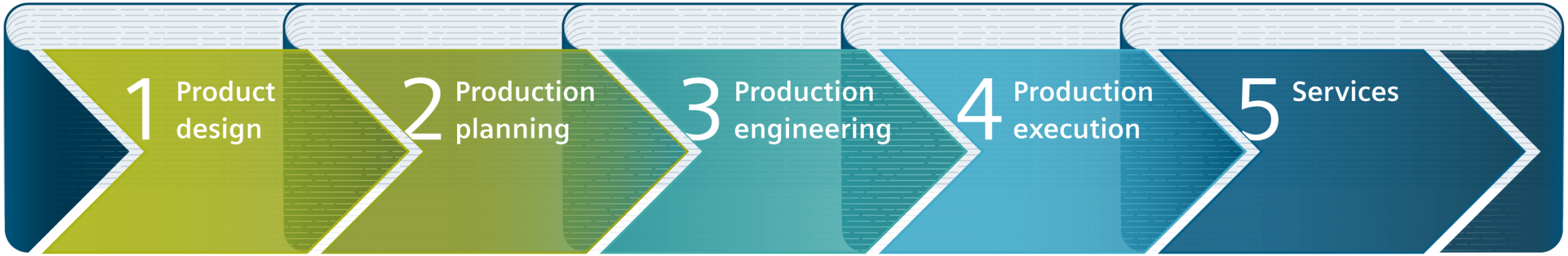

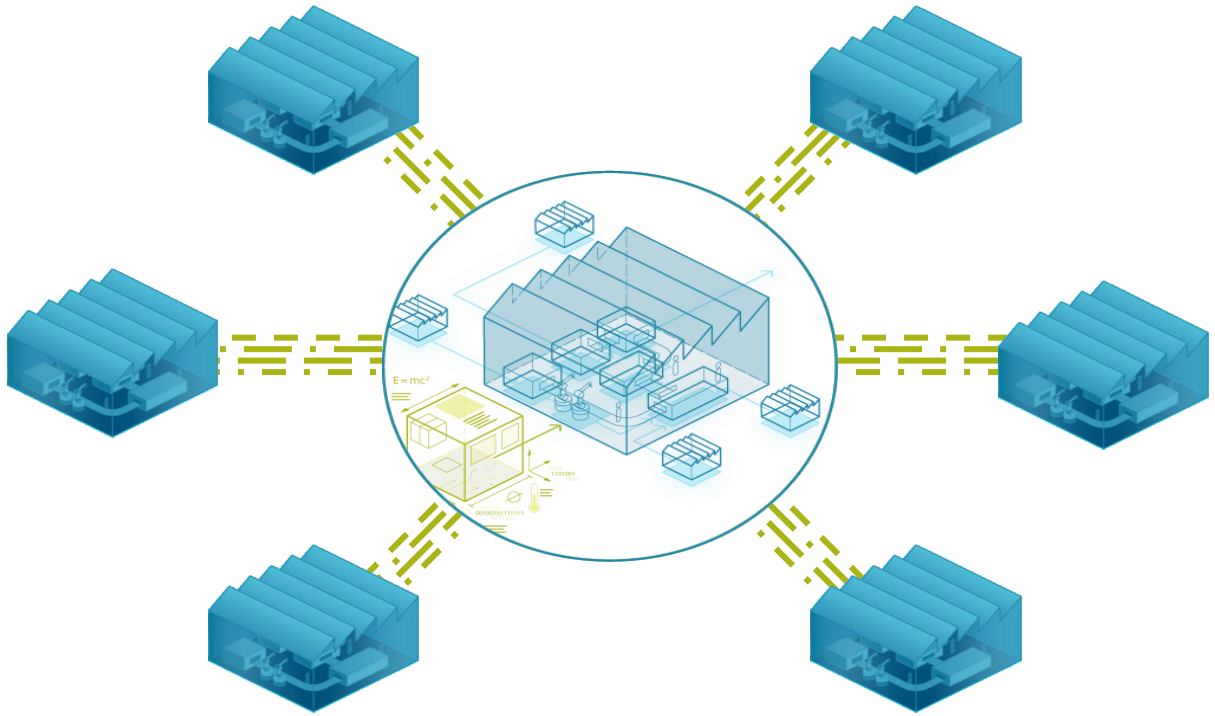

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Digital Enterprise is our portfolio of solutions for the digital transformation – in both discrete industry and process industry

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Digital Enterprise

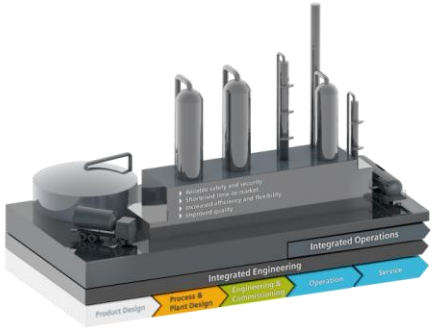
Process Industries

Product design | Process and plant design | Engineering | Operation | Services

Discrete Industries

Product design | Production planning | Production engineering | Production execution | Services

Industrial Software and Automation for process industries



Industrial Communication

Industrial Security

Industrial Services

Industrial Software and Automation for discrete industries

Digital Enterprise Suite

Digitalization of the field level

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Addressing the challenges through digitalization …

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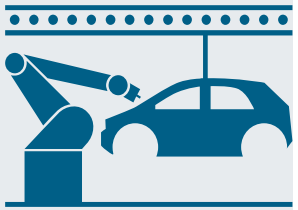
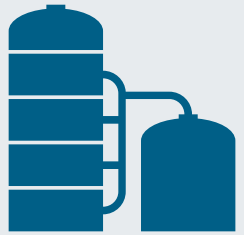


Digital Enterprise @ Process



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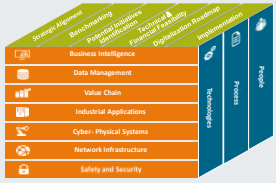

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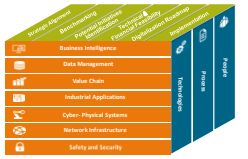
Digitalization demands a holistic approach



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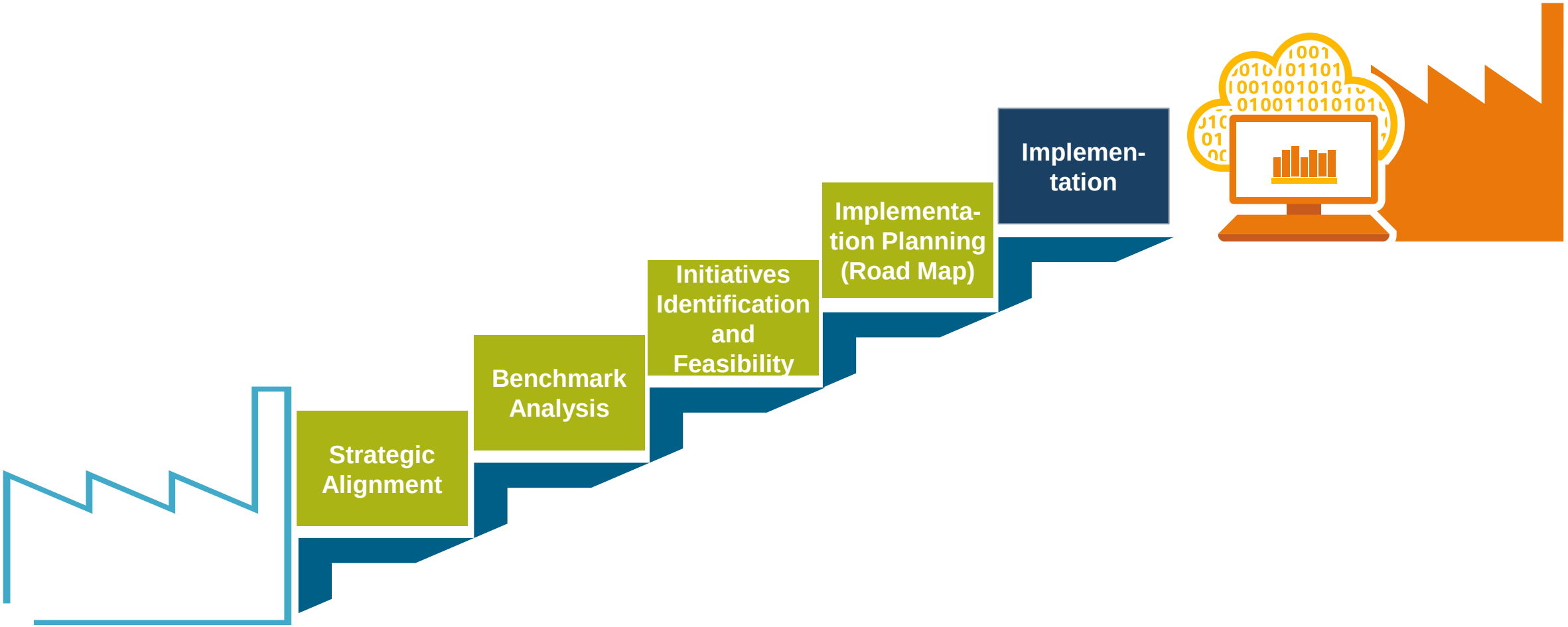

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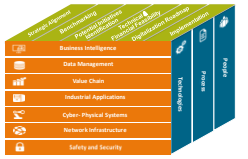
Digitalization demands a holistic approach



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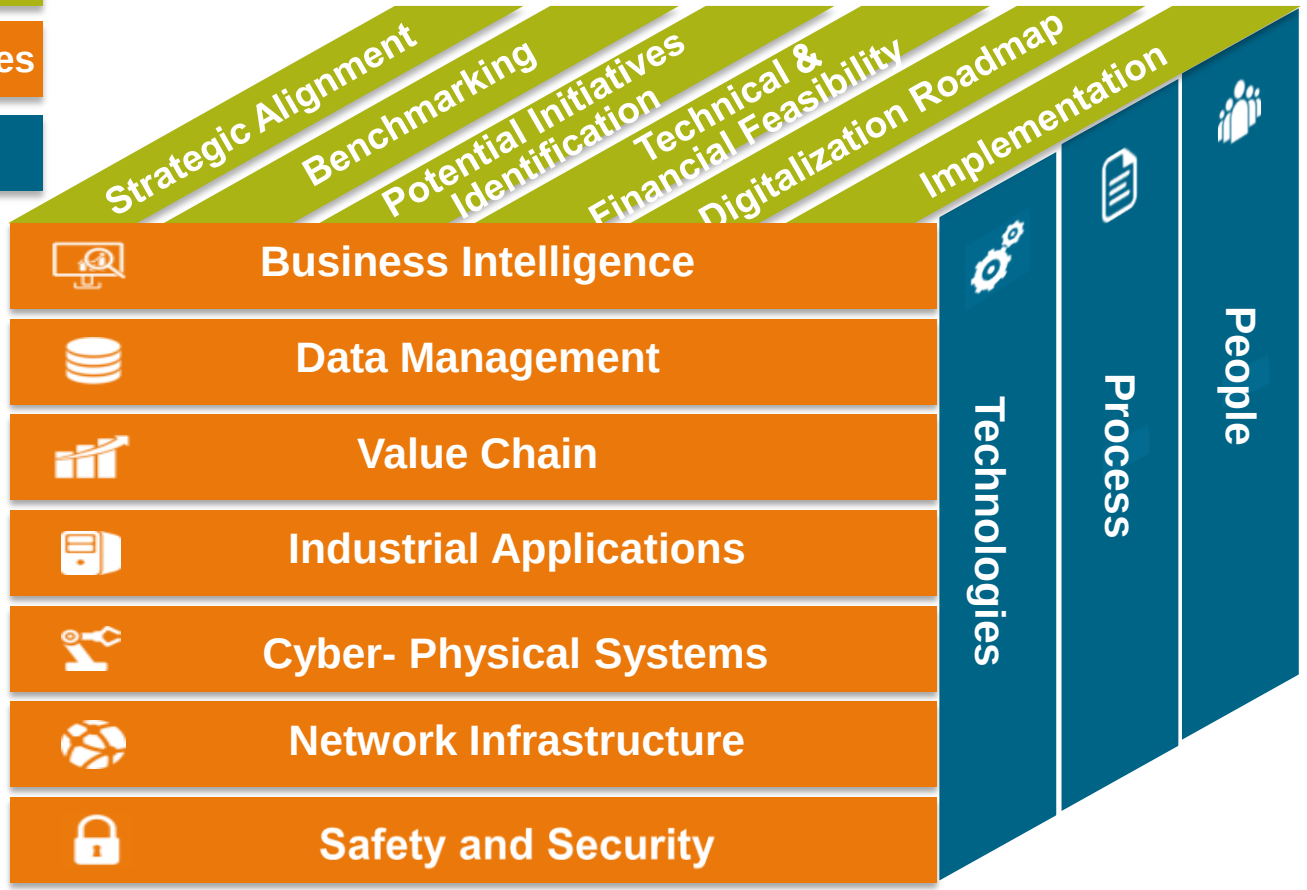
Perspectives to be addressed

- Consulting approach
- Technological perspectives
- Organizational aspects



Digitalization changes everything

… and Industrial IoT also part of this change

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Cloud-based, open IoT operating system

MindSphere

- MindSphere has data analytics and connectivity capabilities, tools for developers, applications and services.
- It enables cities, institutions and industrial enterprises to improve the efficiency of systems through the acquisition and analysis of large quantities of process data.
- MindSphere transform data into knowledge, and knowledge into sustainable business management.

José Borges

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