Siemens AG & Zug Production Site
Digital Transformation and Global Lead Function

28. April 2026

Matteo Odermatt MSc ETH ME
Lead Digitalization SI B manufacturing

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Introduction Matteo Odermatt, 34 years old

2011 – 2017 Studies in Mechanical Engineering BSc & MSc at ETH Zurich

2015 Bachelor thesis at Siemens about simulation of logistics in new built factory Zug

2016 Industrial internship at Siemens and focus on shopfloor Layouting in new built factory Zug

2017 Master thesis at Pilatus Flugzeugwerke about paperless production

2018 – 2020 Project Manager Digitalization and Virtual Engineering at factory Zug

2020 – 2023 Lead for digitalization of factory Zug and SI B plants worldwide

2023 – 2025 Lead for digitalization of factory Zug and SI B plants worldwide + member of the Zug Factory Management

2026 Lead for digitalization of SI B plants and Lead D2O make ERP transformation project

Hobbies: Cooking, good food & wine, mountain biking, motorcycling and snowboarding.

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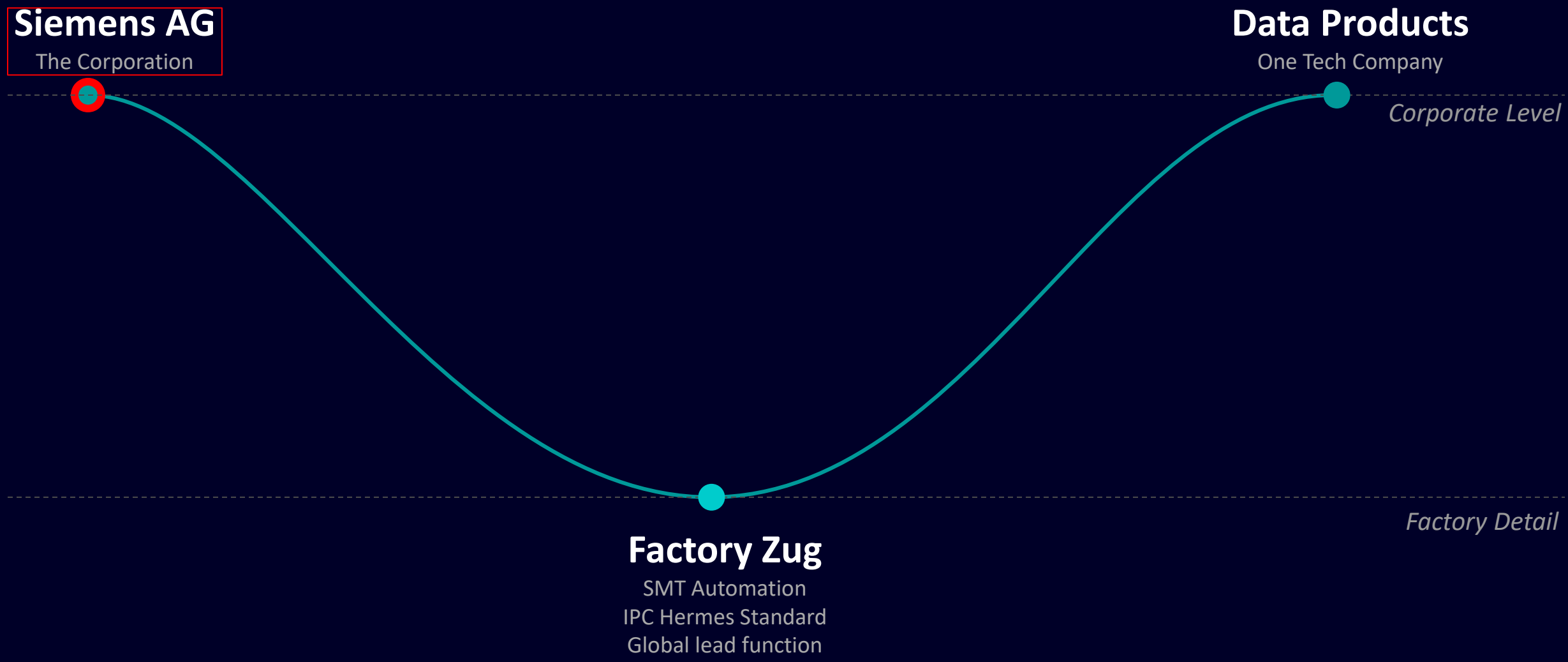
Our journey in the next 60 minutes



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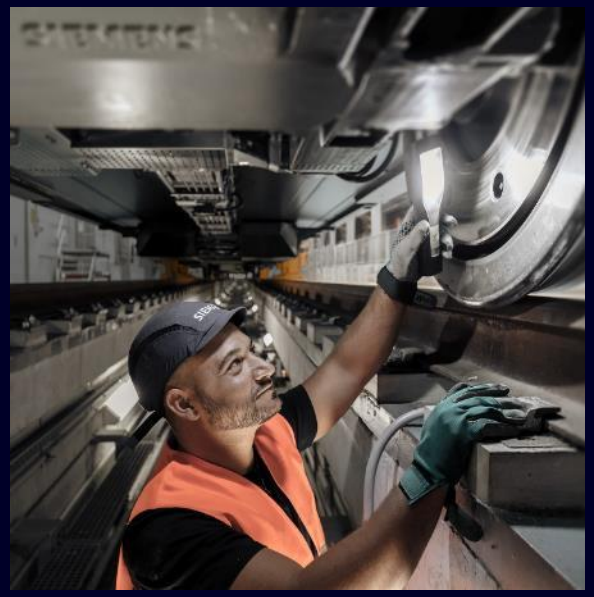
Our purpose has guided us
for more than 175 years:

We create technology **to transform the everyday, for everyone.**



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Digital transformation has the potential to drive progress and growth and reduce resource consumption in all countries

Industry

Up to **50% material savings** can be realized using digital twins and innovative production technologies such as additive manufacturing.

Infrastructure

Buildings are currently responsible for **39% of global energy related carbon emissions**. Data analytics and automated building management can unlock large saving potentials.

Mobility

Up to **30% higher network capacity** can be achieved through automatic train operation and by optimizing train flows and rail operations.

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We empower our customers to become more competitive, resilient, and sustainable

FY 2025

318,000
Employees[1,2]

€78.9 bn
Revenue

€88.4 bn
Orders

€10.4 bn
Net income[3]

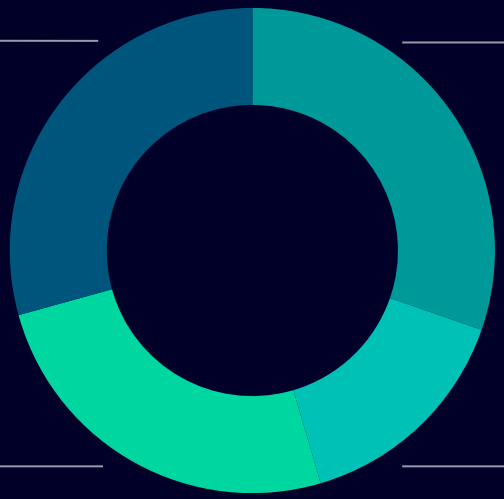
15.4%
Profit margin
Industrial Business

€10.8 bn
Free Cash Flow[3]

1 As of September 30, 2025 | **2** Continuing operations | **3** Continuing and discontinued operations

FY 2025 in detail

Revenue by industrial business[1]



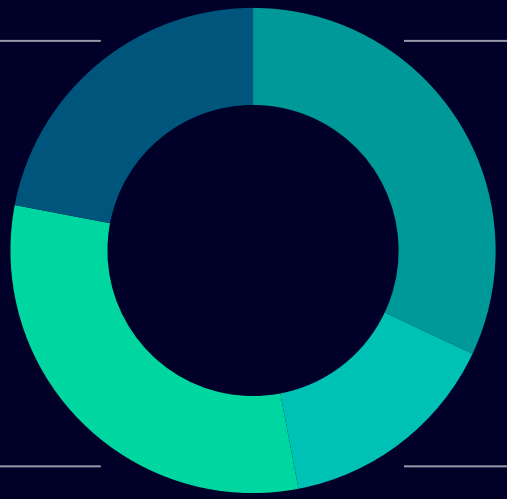
29% Smart Infrastructure

30% Siemens Healthineers

23% Digital Industries

16% Mobility

Revenue by region[1]



21% Asia, Australia

32% Europe, CIS[2], Africa, Middle East (excluding Germany)

33% Americas

15% Germany

1 All figures rounded | **2** Commonwealth of Independent States

Note: Due to rounding, numbers might not add up to 100%

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Smart Infrastructure in numbers

Employees
as of Sept. 30, 2025
79,400

Profit margin[1]
in fiscal 2025
18.3%

1 Operational

Revenue
in fiscal 2025
€23.0 bn

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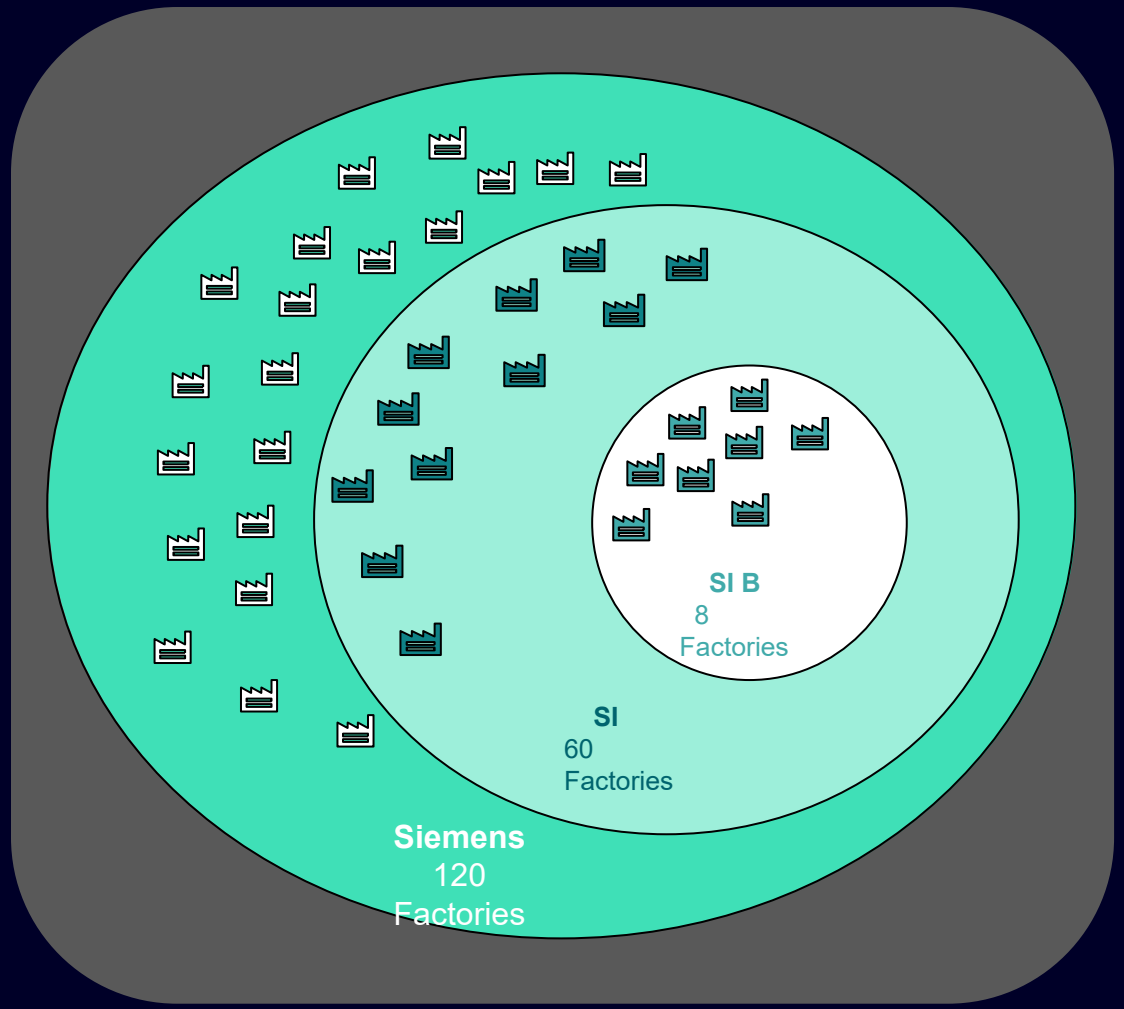
SI B Factories Leverage Cross-Site Synergies



Siemens: übergreifende Teams

- SPS-Community
- Lean Digital Factory
- Global Collaboration

SI: Produktions-Communities

- Digitalisierung
- Automation
- Lean/SPS
- Network Management/ Collaboration

SI B: 3 Globale Arbeitsgruppen

- Lean/Coaching
- Digitalisierung
- Robotics

Contribution from B

- Lean/Coaching
- Footprint Management
- Joint App Development

Benefits for B

- Digitalization
- Automation
- Use of Apps and Tools

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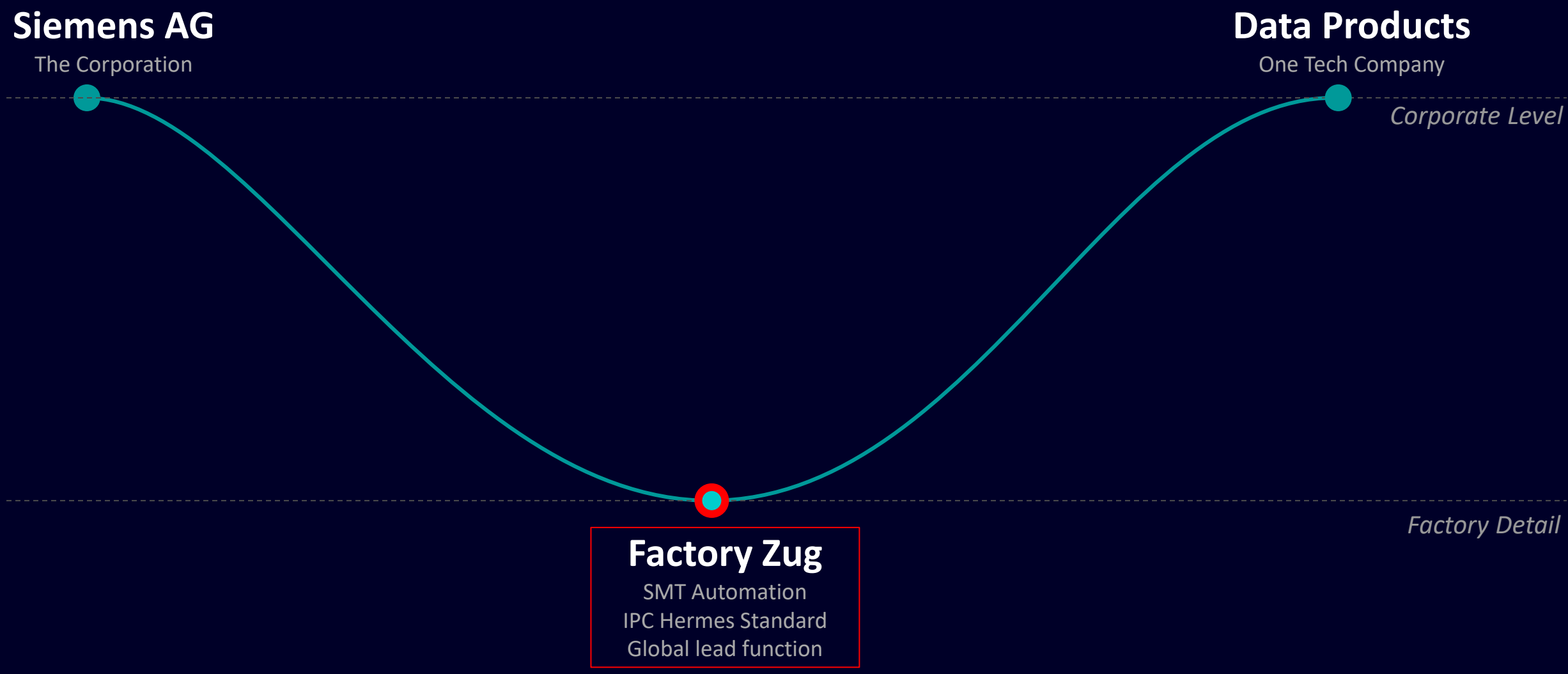

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Factory Zug

We are one of the highest-performing plants in industrialization and manufacturing.

Focus on Core Portfolio

- Technologically Demanding Products
- Low Manual Value Creation

Lead Factory for Innovation

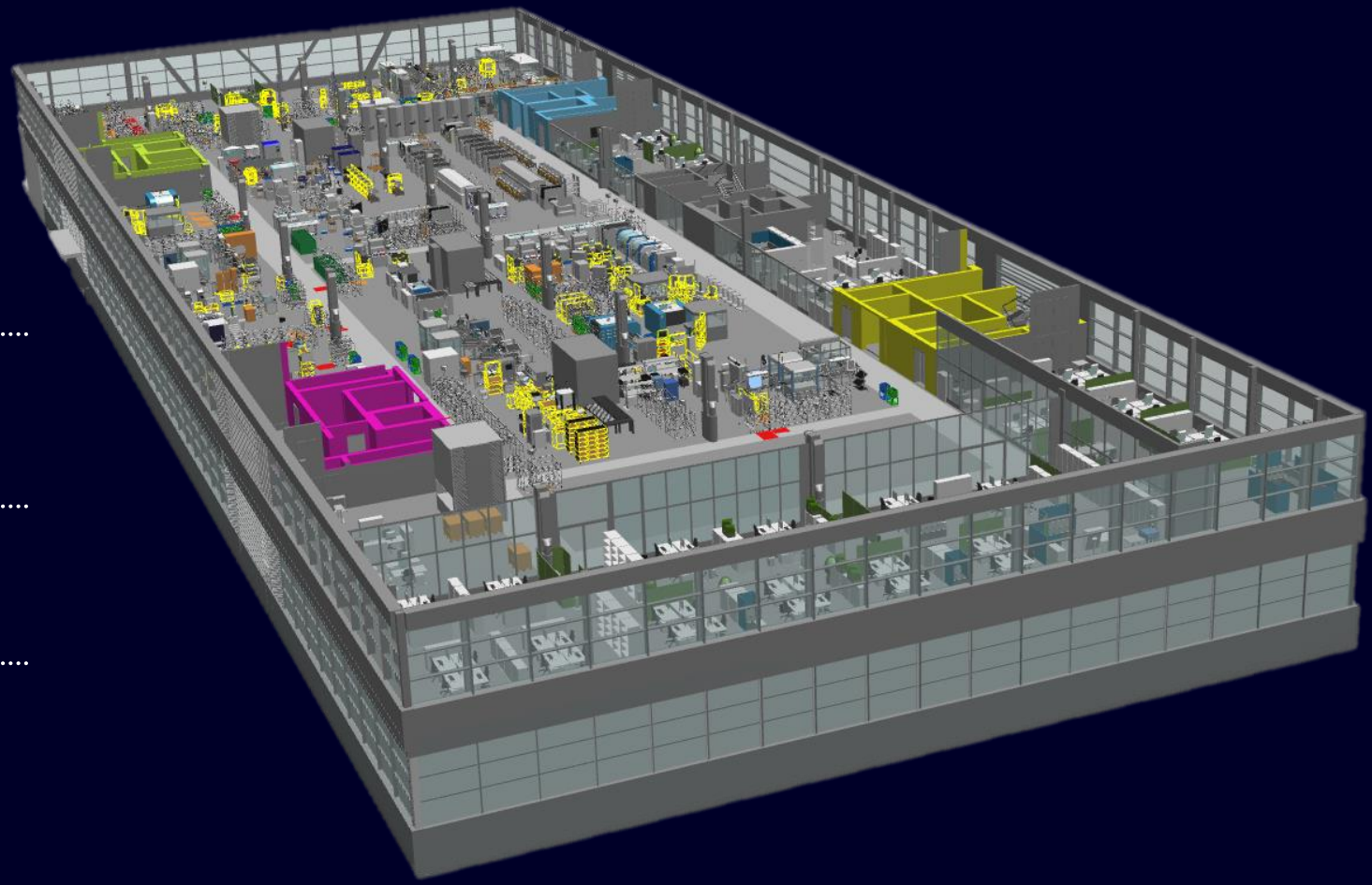
Supports the Global Network

High Productivity Gains

BY22: BY23: BY24:

Advantages of the Zug Site

- Proximity to R&D
- Strong Focus on Employee Development
- Highly Flexible and Skilled Workforce



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SI B PRO SCM and surrounding networks – share and learn from each other

Monthly Meetings: Factory representatives and HQ (DIGI, CYS, IT) meet to align local needs with global standards. Representatives are part of local management

Global Alignment: global alignment sessions every three months

Standardized Interaction: Communication through standardized Teams Groups and channels.

Local Support: Strongly recommended for inspiration and exchange.

Factory Exchange: Encouraged exchange and comparison between factories.

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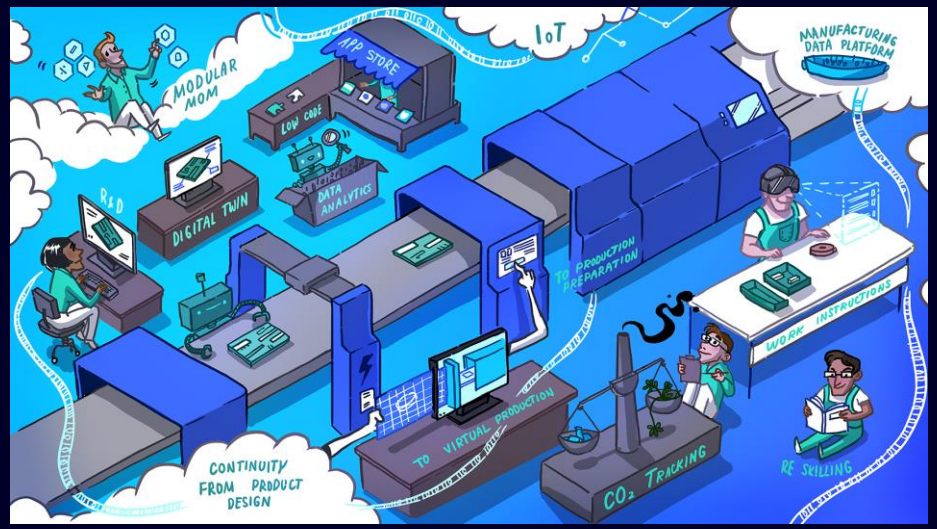
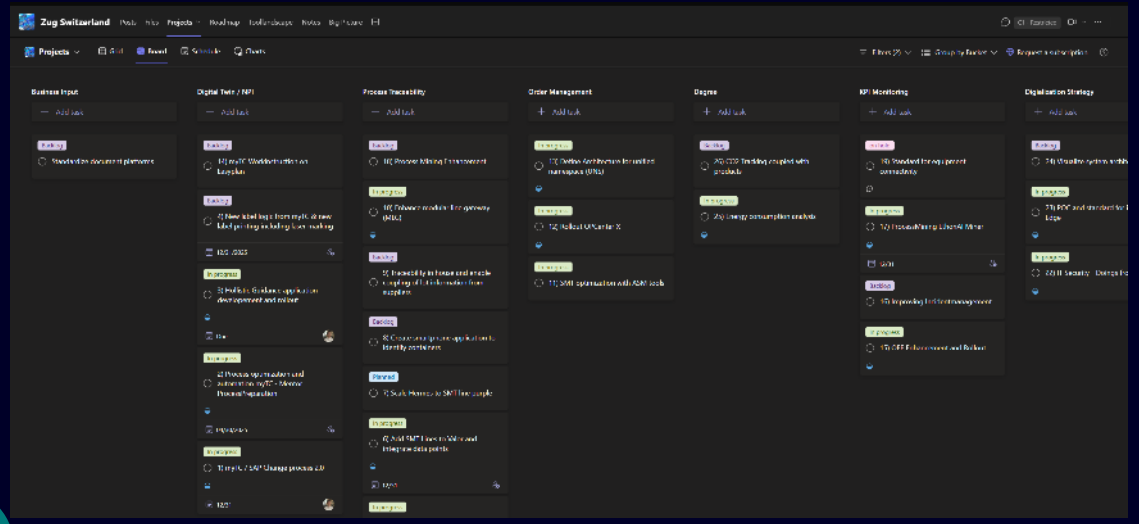
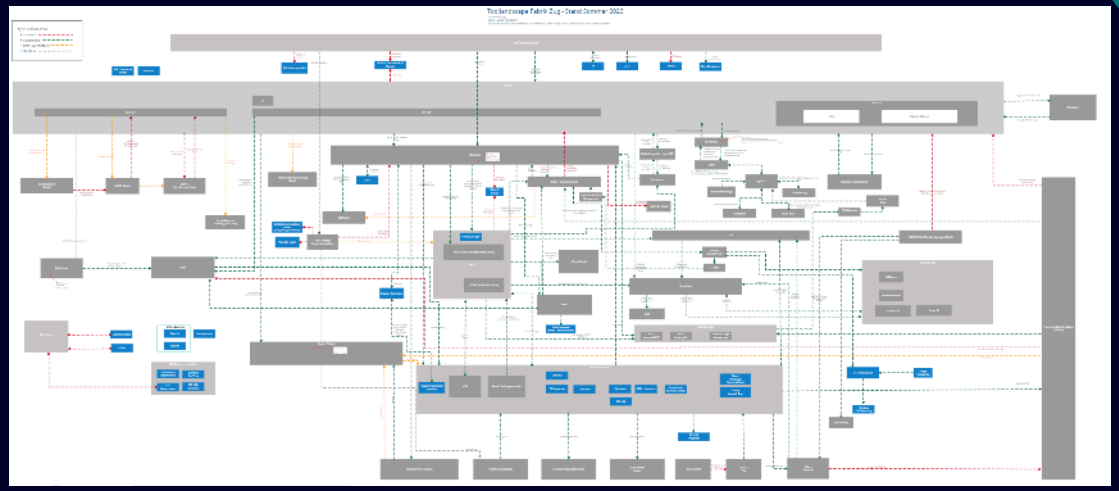
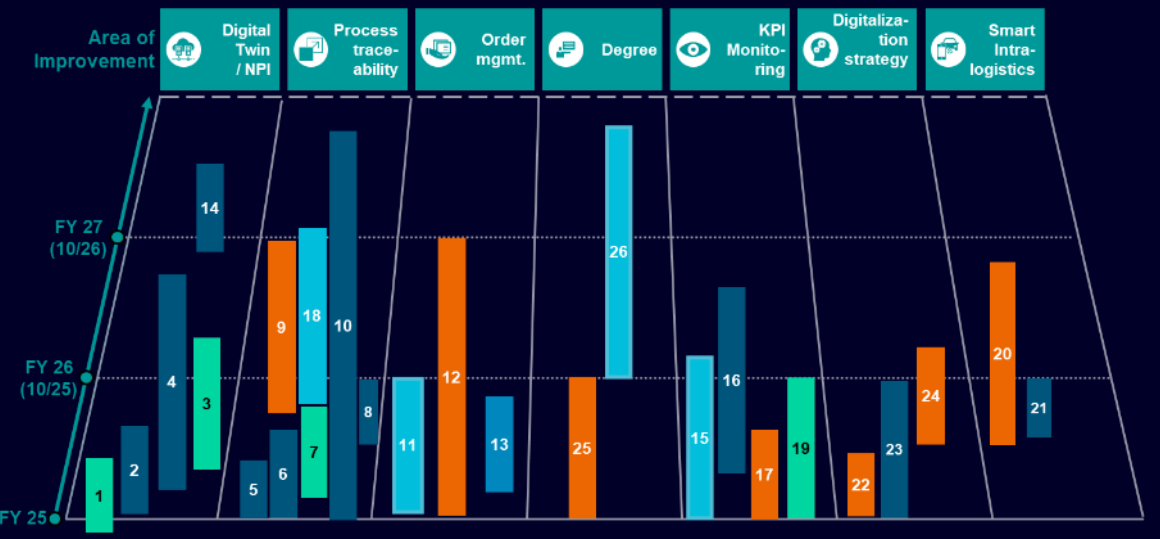
Digitalizationsstrategie und Standard









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Products: Mix of High Volume and High Variety

Fire detectors

Actuators

Controllers

I/O Moduls

Panels und Peripherals

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Explanation of terms

MES is an umbrella term for the control systems of a factory. An MES covers many functional areas and can come from a single manufacturer or from different applications from different manufacturers. Siemens itself has had many MES in its portfolio in the past, such as Valor, Camstar and OPCenter.

AGVs are driverless, computer-controlled vehicles used to move materials, pallets, and goods in factories, warehouses, and distribution centers. Synonyms include Automated Guided Carts (AGCs), Laser Guided Vehicles (LGVs), or simply driverless robots

The **Factory Data Cloud (FDC)** is a cloud-based system designed to collect, store, and analyze data from various machines and processes within a manufacturing facility. By leveraging cloud technology, FDC facilitates data accessibility, scalability, and advanced analytics, supporting smarter decision-making and predictive maintenance in modern factories.

The **IPC Hermes** Standard offers a non-proprietary, vendor-independent protocol for machine-to-machine (M2M) communication in SMT assembly. Its target is to improve board flow management and traceability through all stations of a SMT line.

… **Process mining** is a technique that uses event logs to discover, monitor, and improve real processes. It bridges the gap between traditional process modeling and data-driven analysis, providing insights into how processes actually perform.

SMT is a method for assembling electronic circuits by mounting components directly onto the surface of a printed circuit board (PCB).It allows for smaller, lighter, and more densely packed electronics compared to traditional through-hole mounting. SMT is widely used in modern electronics manufacturing because it supports high automation and high-volume production.

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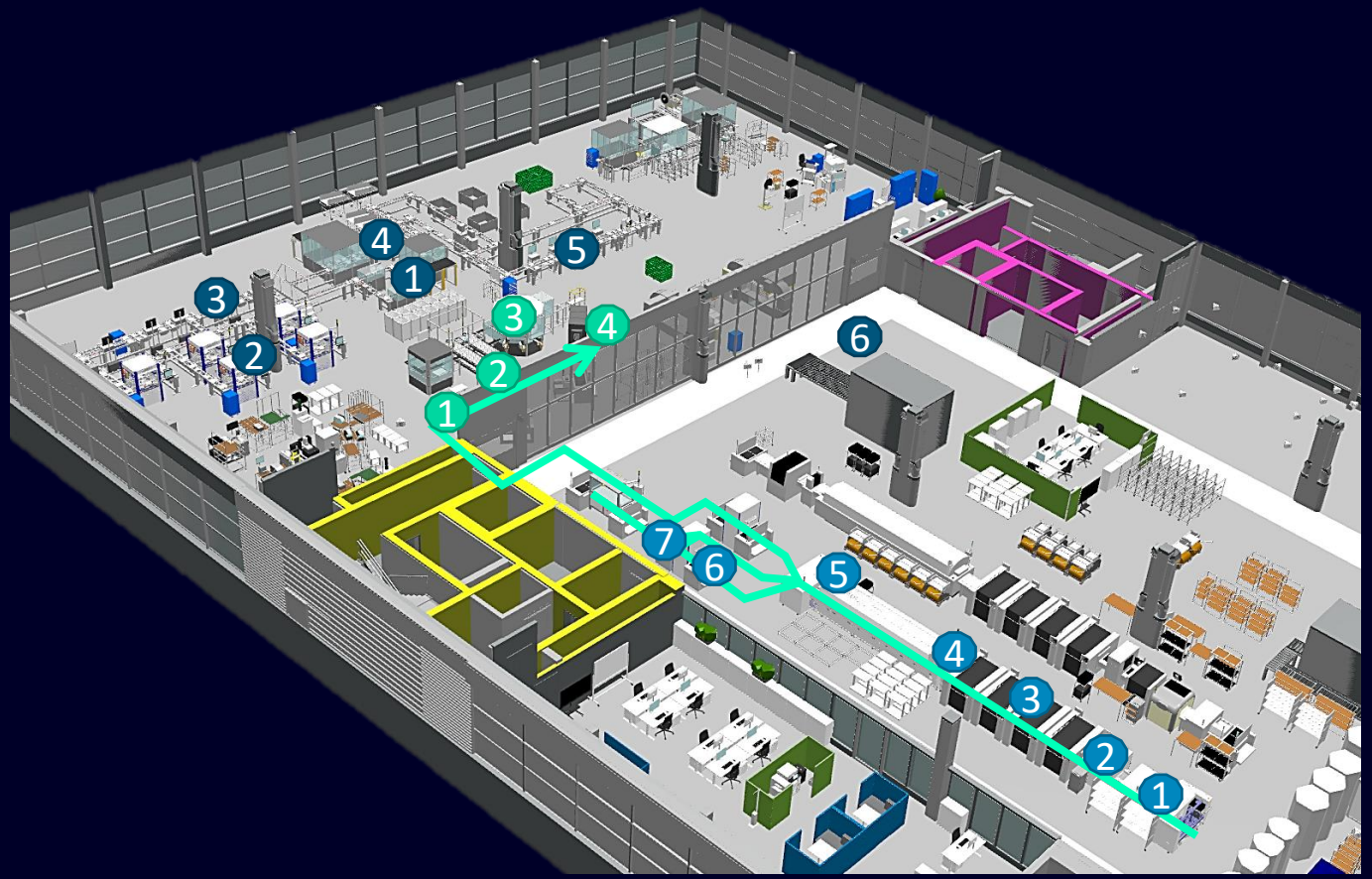
Value stream with SMT and final assembly



Step #1: SMT & ICT

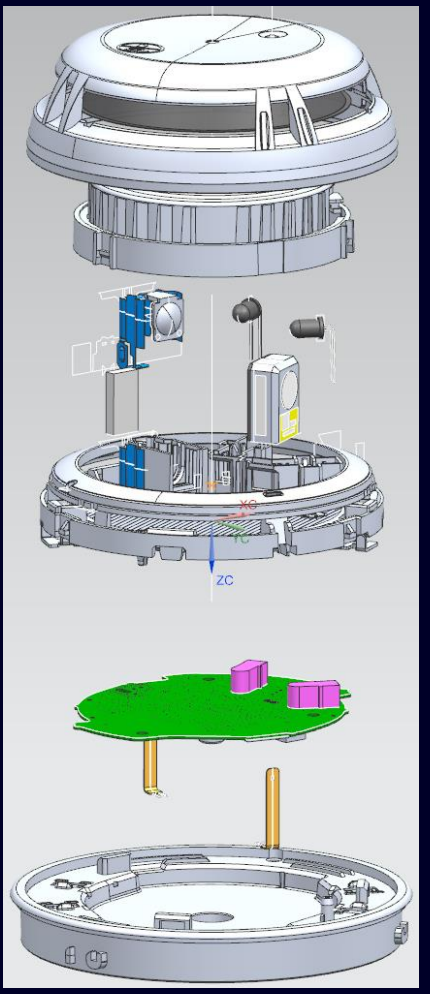
1 2 3 4 5 6 7

Step #2: Preassembly

1 2 3 4

Step #3: Final assembly and packaging

1 2 3 4 5 6



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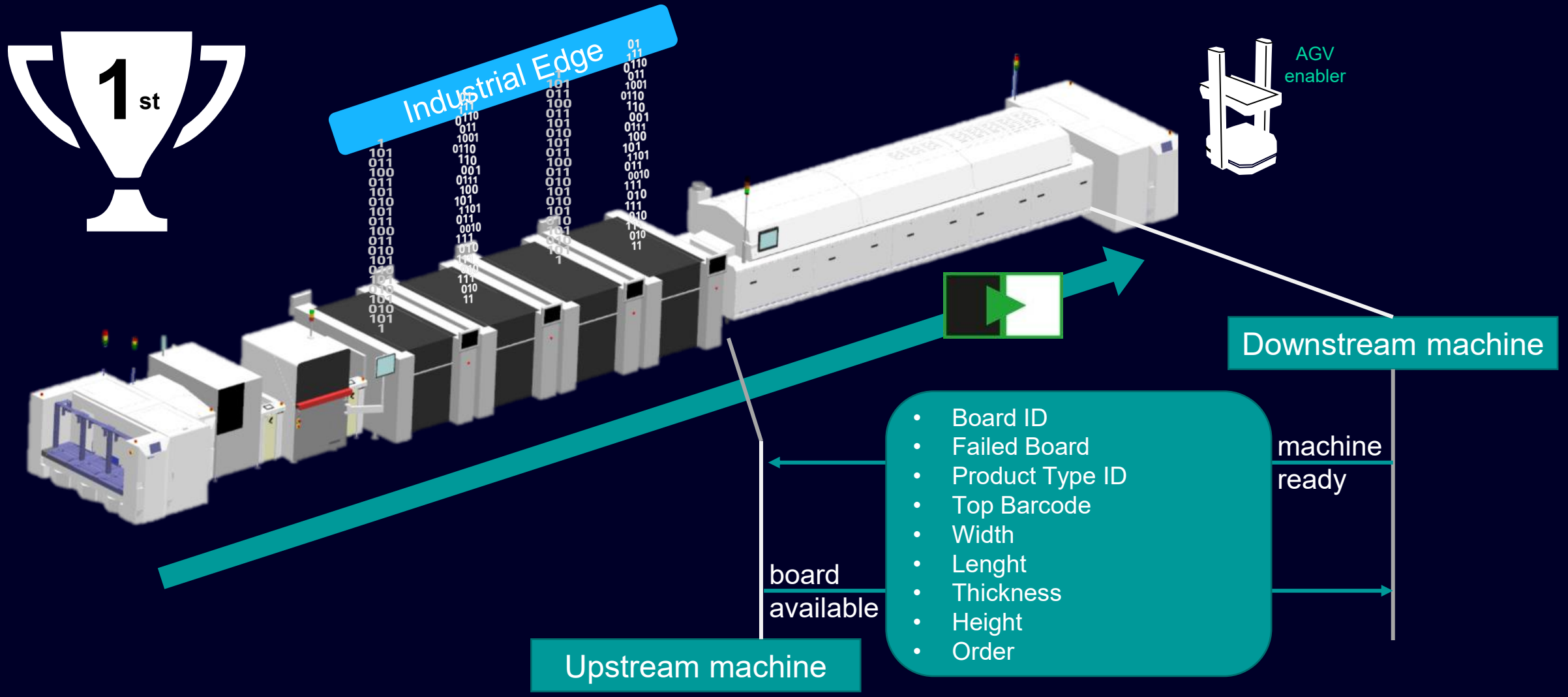
MF Zug as first factory to fully automize setup process of an SMT line with IPC Hermes standard in Siemens worldwide



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Machine initialisation is crucial part of the Hermes logic

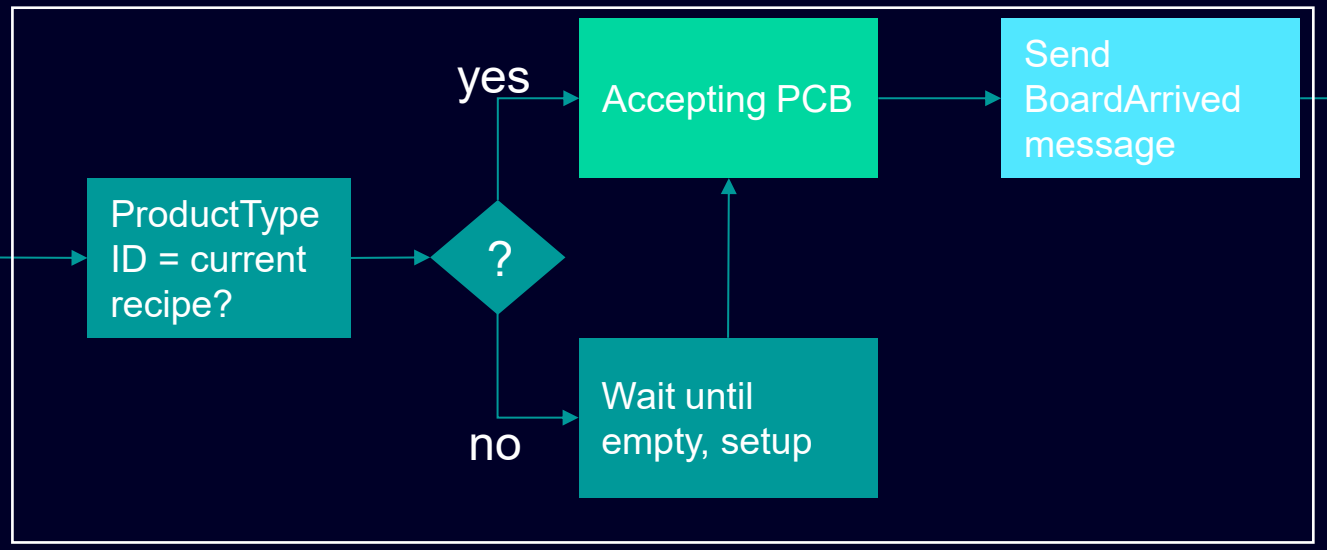
Industrial Edge

Board arrived

Machine ready

Board available

- Board ID
- Failed Board
- Product Type ID
- Top Barcode
- Width
- Lenght
- Thickness
- Height
- Order



Provider specific logic

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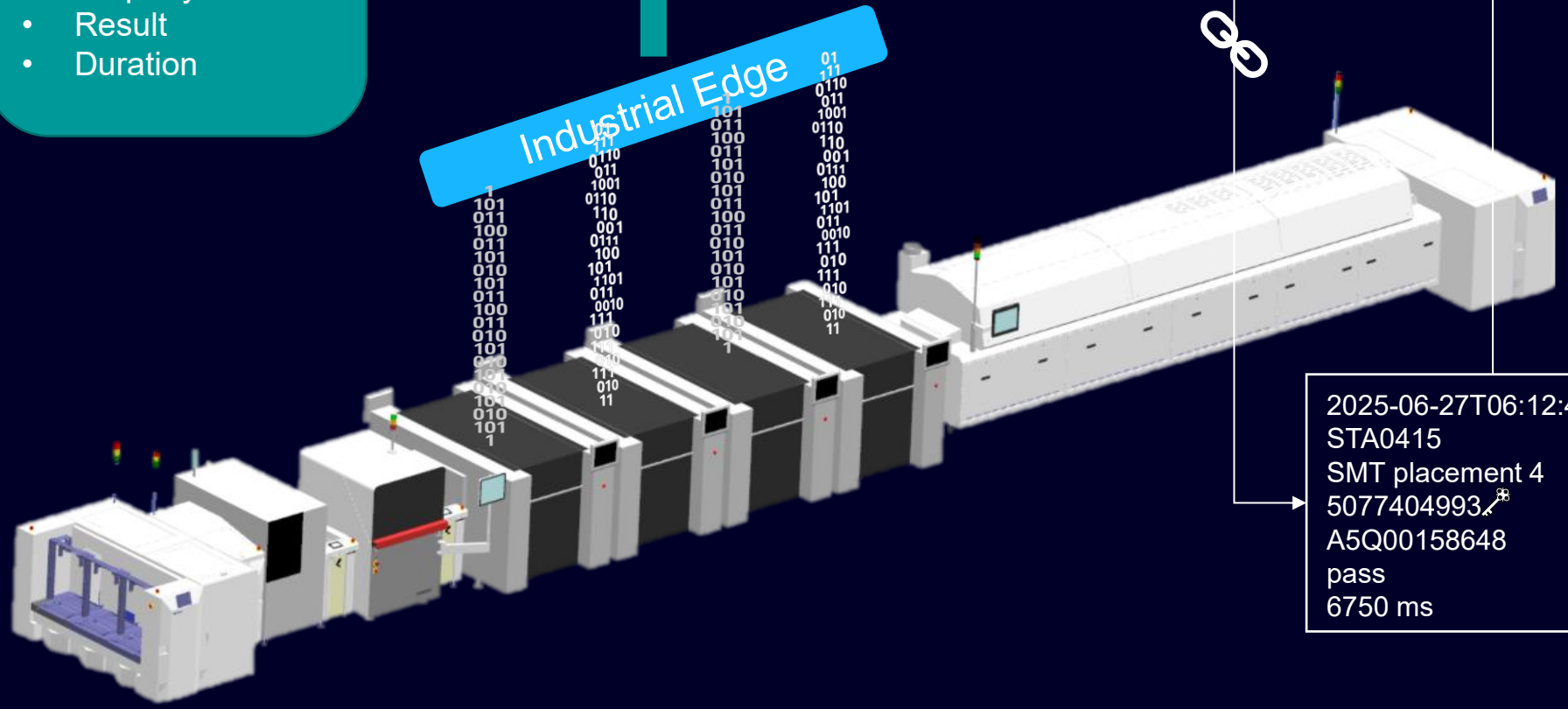
How can we get the data from the machine to the cloud?
Example: process mining data

- Event time
- Event location
- Event name
- Unique identifier
- Property name
- Result
- Duration

2024-05-27T06:10:15.00
STA0966
SMT placement 1
5077404993
A5Q00158648
pass
4575 ms

2025-06-27T06:15:11.00
STA0693
SMT soldering oven
5077404993
A5Q00158648
pass
375000 ms



2025-06-27T06:12:45.00
STA0415
SMT placement 4
5077404993
A5Q00158648
pass
6750 ms

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Global setup for data gathering & Visualization – Factory data cloud

Analytics

DSFM

Data Visualization

Snowflake datalake (factory data cloud)

Data storage

local database / datasource

Excel import Sharepoint

SAP

Industrial edge

Data source

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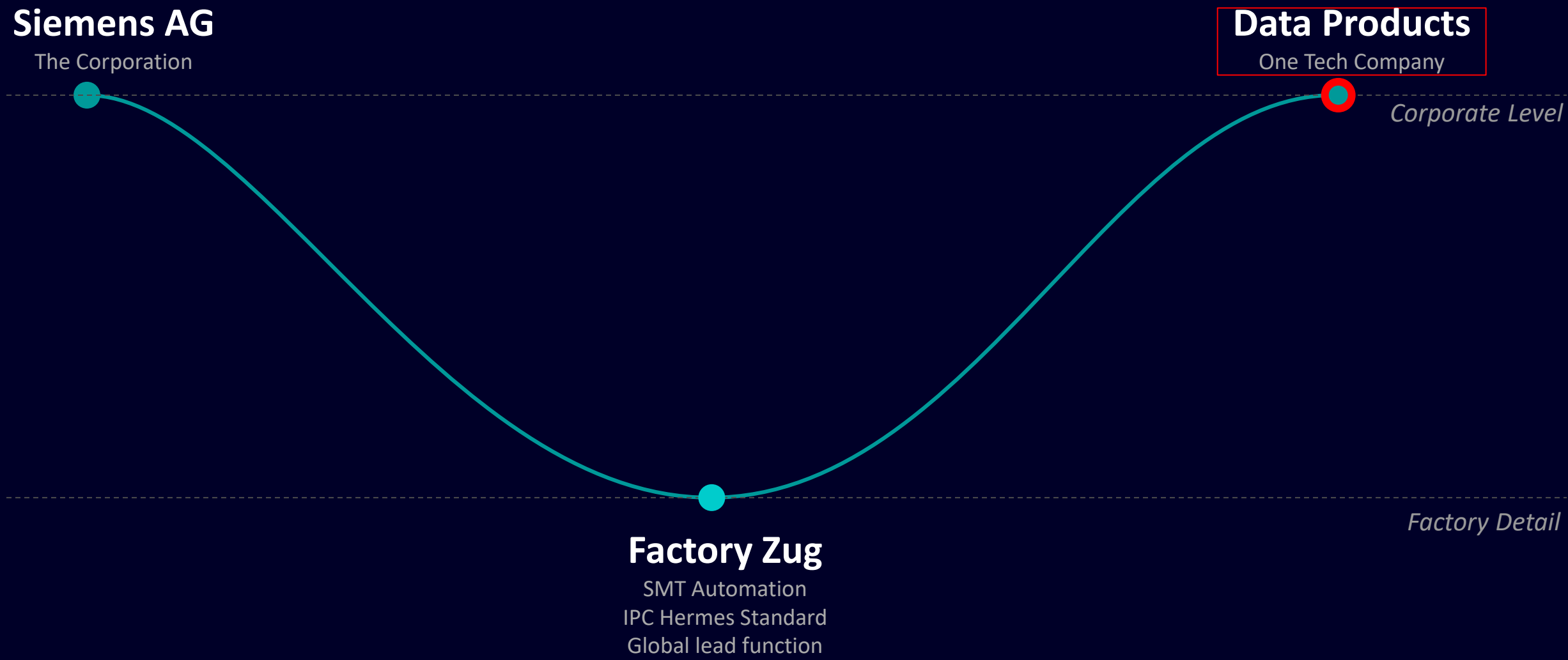

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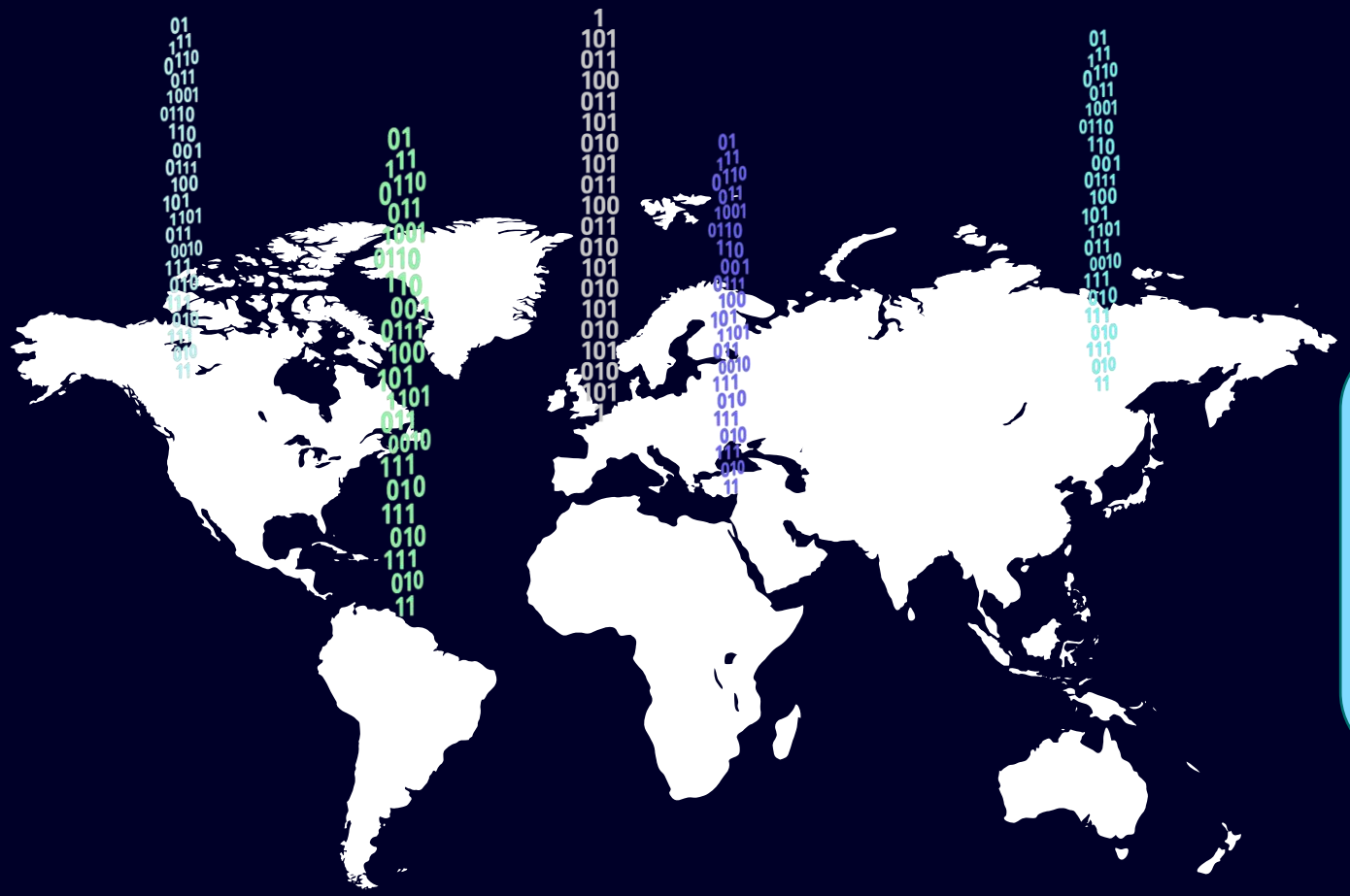
Let‘s assume all factories worldwide produce process mining data



Factory Zug
- Event time
- Event location
- Event name
- Unique identifier
- Property name
- Result
- Duration

Factory Turkey
- time
- Serial number
- Order
- pass / fail
- processtime

Factory Beijing
- Timestamp
- machine
- name
- SN_unique
- Duration

Factory Brazil
- Event time
- Event location
- Name
- Key identifier
- Result_tester
- Process

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SHERPA X: Business Transformation And the Birth of Data Domains for Siemens

Sherpa X is a strategic program from Siemens to build a uniform, flexible and future-proof ERP system landscape. The goal is to standardize business processes worldwide, map them in a new SAP S/4HANA private cloud and also include tools such as OPCenter X & IRIS

ONE Tech is an initiative in which we pursue our North Star and achieve greater customer focus, faster innovation and higher growth. Share unless: Making data discoverable, accessible, interoperable, and reusable for the entire organization

Process Harmonization

Harmonizing our internal processes helps us boost productivity and meet customer demands for the latest technology, faster responses and personalized experience.

Upgrading Technology

We want to help our people to work more efficiently by up-grading our technology and automating where it makes sense.

Unifying Data Systems

We are building a shared data architecture, so our people can access and use information across the organization.

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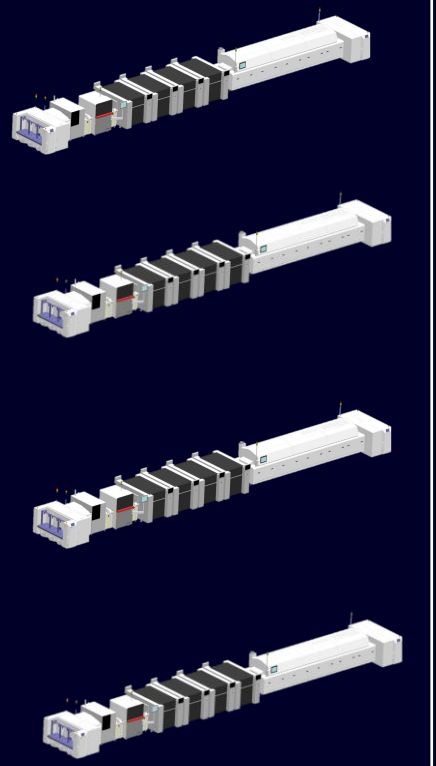
How does a data product work?

Source



Source-aligned Data Product

Factory Zug
- Event time
- Event location
- Event name
- Unique identifier
- Property name
- Result
- Duration

Factory Turkey
- time
- Serial number
- Order
- pass / fail
- processtime

Factory Beijing
- Timestamp
- machine
- name
- SN_unique
- Duration

Factory Brazil
- Event time
- Event location
- Name
- Key identifier
- Result_tester
- Process

Aggregated Data Product

- Event time
- Event location
- Event name
- Unique identifier
- Property name
- Result
- Duration

Consumer aligned Data Product

Data product A

Data product B

Data product C

Standardization & benefit

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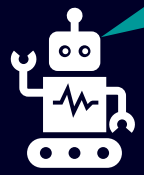
Advantages of Data Products

When the process time of smt placement 1 is higher the PCBA will fail more often on the ICT



We had a customer complaint for product A with SN 1234. Show me the track & trace data in the factory.

Data products are the fundament of most data & AI use cases

Reusable asset

Build once, use across teams

Clear ownership

Defined domain and steward roles

Trusted quality

SLAs, lineage, and validation

Faster scaling

Standard interfaces speed rollout

Self-service

Easy discovery and access control

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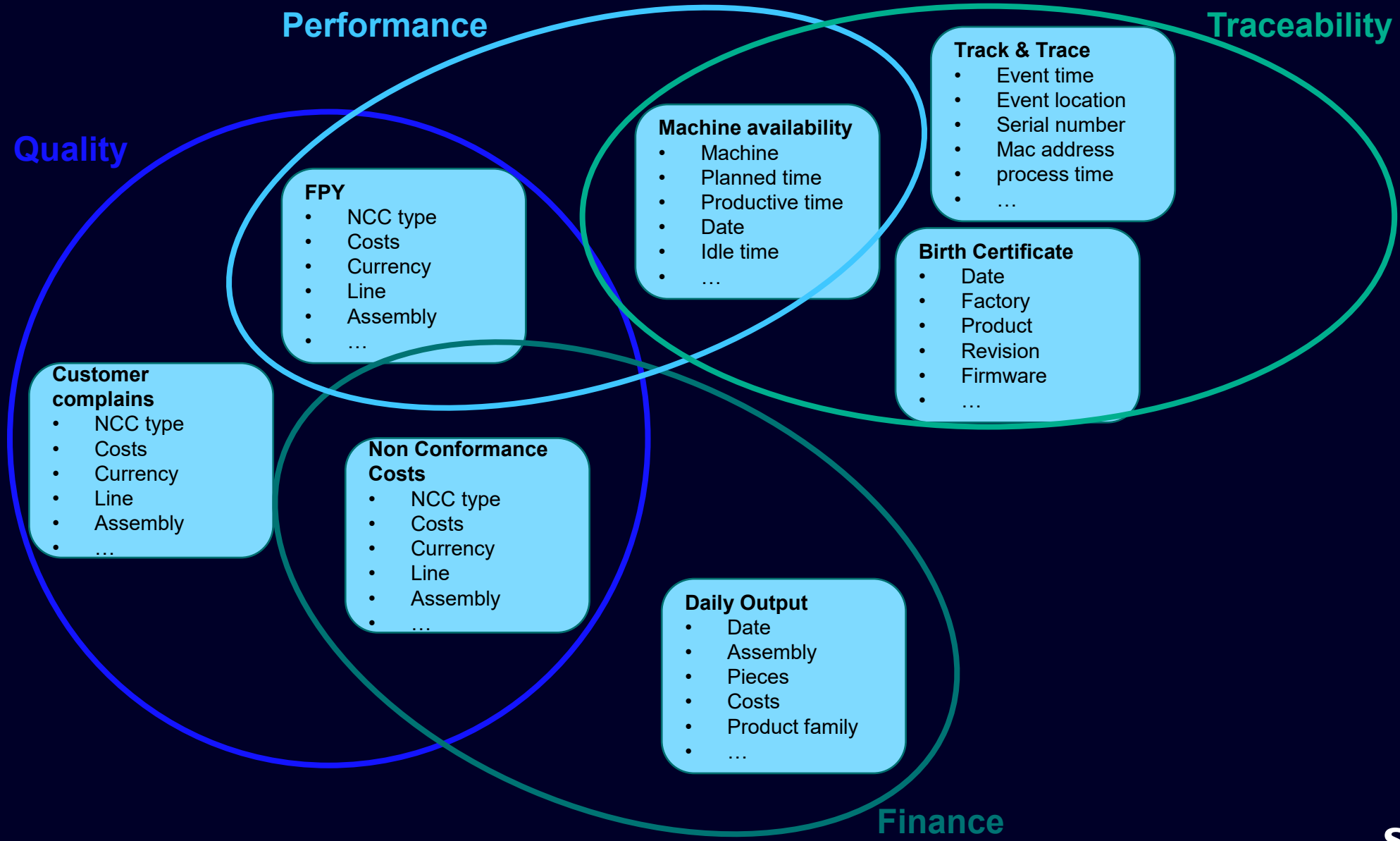
Concrete examples of data product from operation perspective



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“Data is the oxygen
for our digital transformation
and the foundation
of every innovation.”

Dr. rer. nat. Roland Busch (*1964 in Erlangen), since 2021 CEO of Siemens AG

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Contact

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