

FORUM INDUSTRIA DIGITALE

SIEMENS

“Digital Enterprise”: innovazione, efficienza e
flessibilità per la trasformazione digitale e sostenibile
dell’industria

SIEMENS

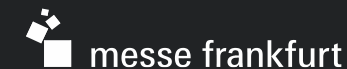
Marco Maggi

Portfolio Development Manager Italy

Promosso da



Organizzato da

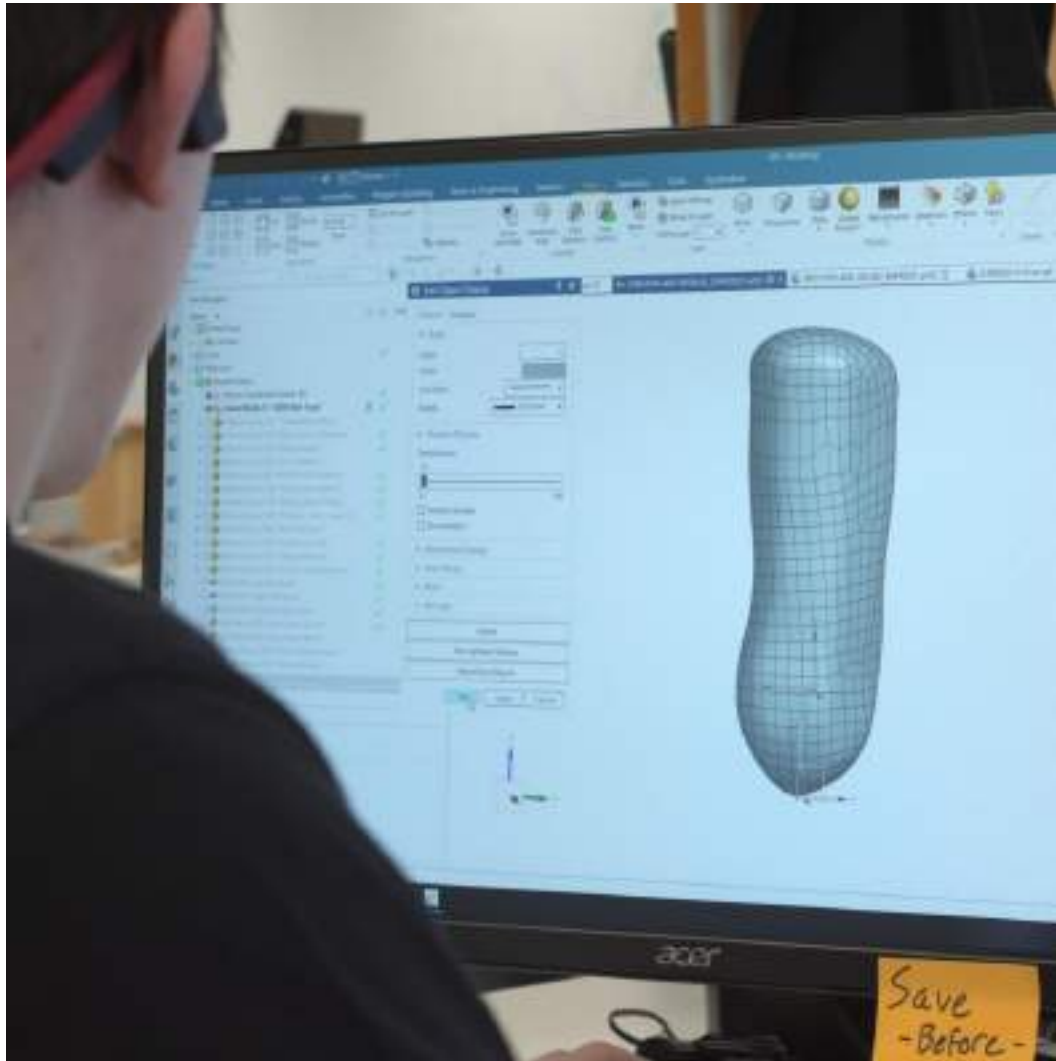




Challenges for the industry grow at an extreme rate

Supply chain disruptions
Integration Resilience Quality
Flexibility Cybersecurity Scalability
Complexity Adaptability Efficiency
Safety Health Sustainability
Individualization Circular economy Cost pressure
Faster innovation cycles Ageing societies

Transforming the everyday



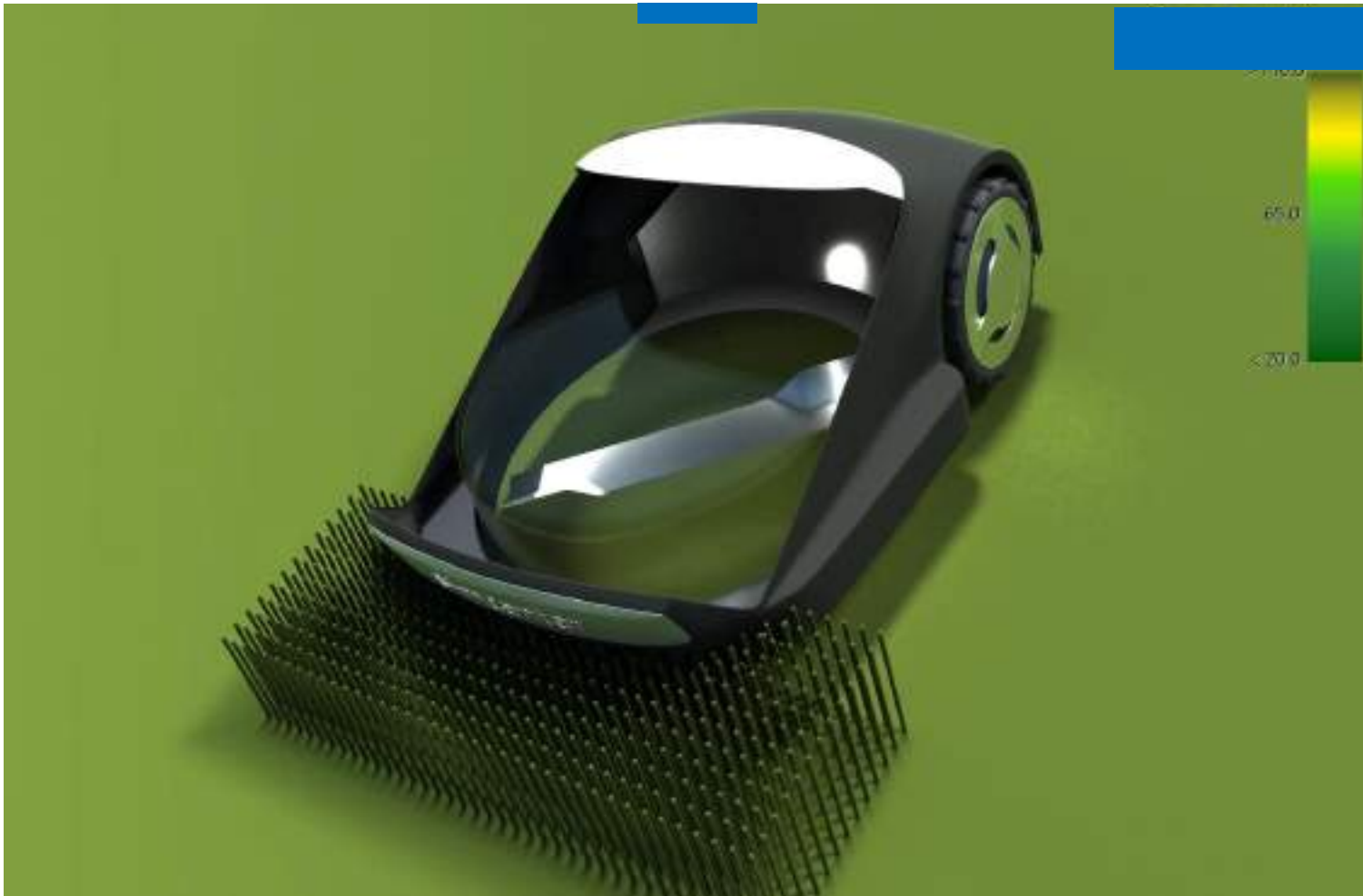
Transforming the everyday



Transforming the everyday

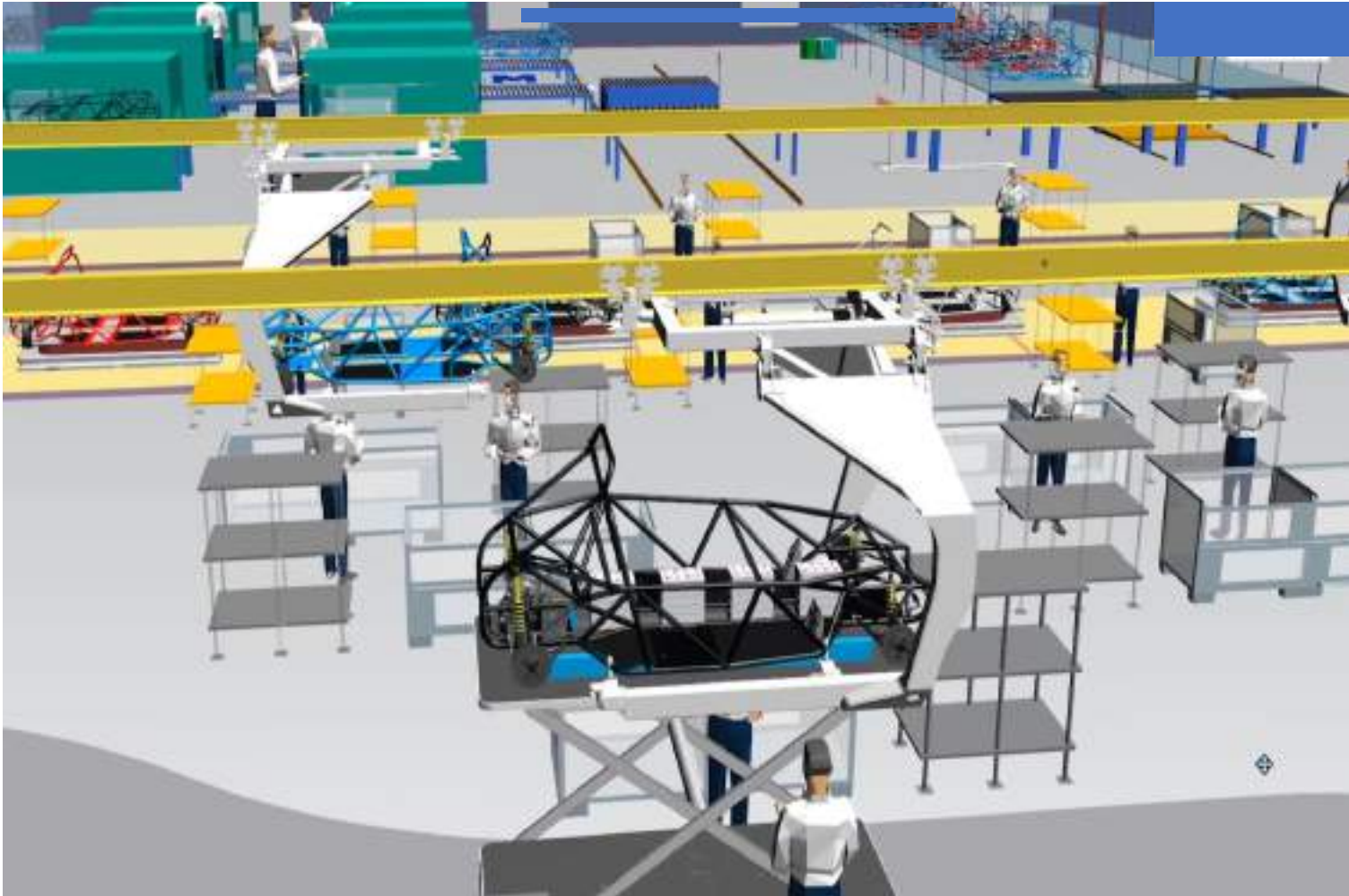


DIGITAL TWIN OF PRODUCT



Design, simulate, and verify products digitally, including mechanics and multi-physics, electronics and software management

DIGITAL TWIN OF PRODUCTION



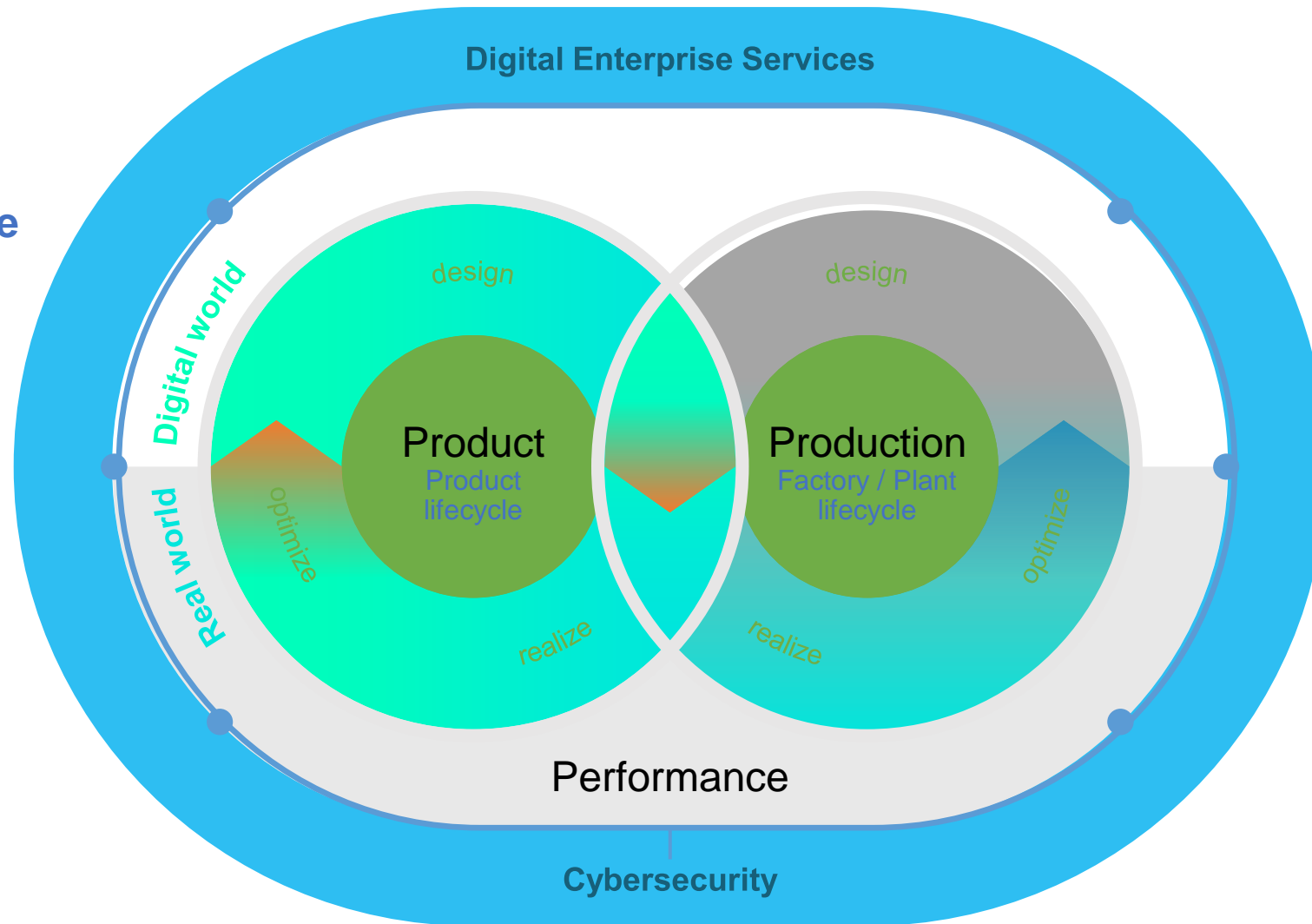
**Plan, simulate,
predict and optimize
production digitally**
with PLC code
generation and virtual
commissioning

REAL PRODUCTION, PRODUCT, AND PERFORMANCE DATA



Run production efficiently and securely with Totally Integrated Automation. Continuously optimize with data insights.

The Game Changer



The comprehensive Digital Twin approach allows the realistic simulation and validation of products, machines, lines and complete plants.

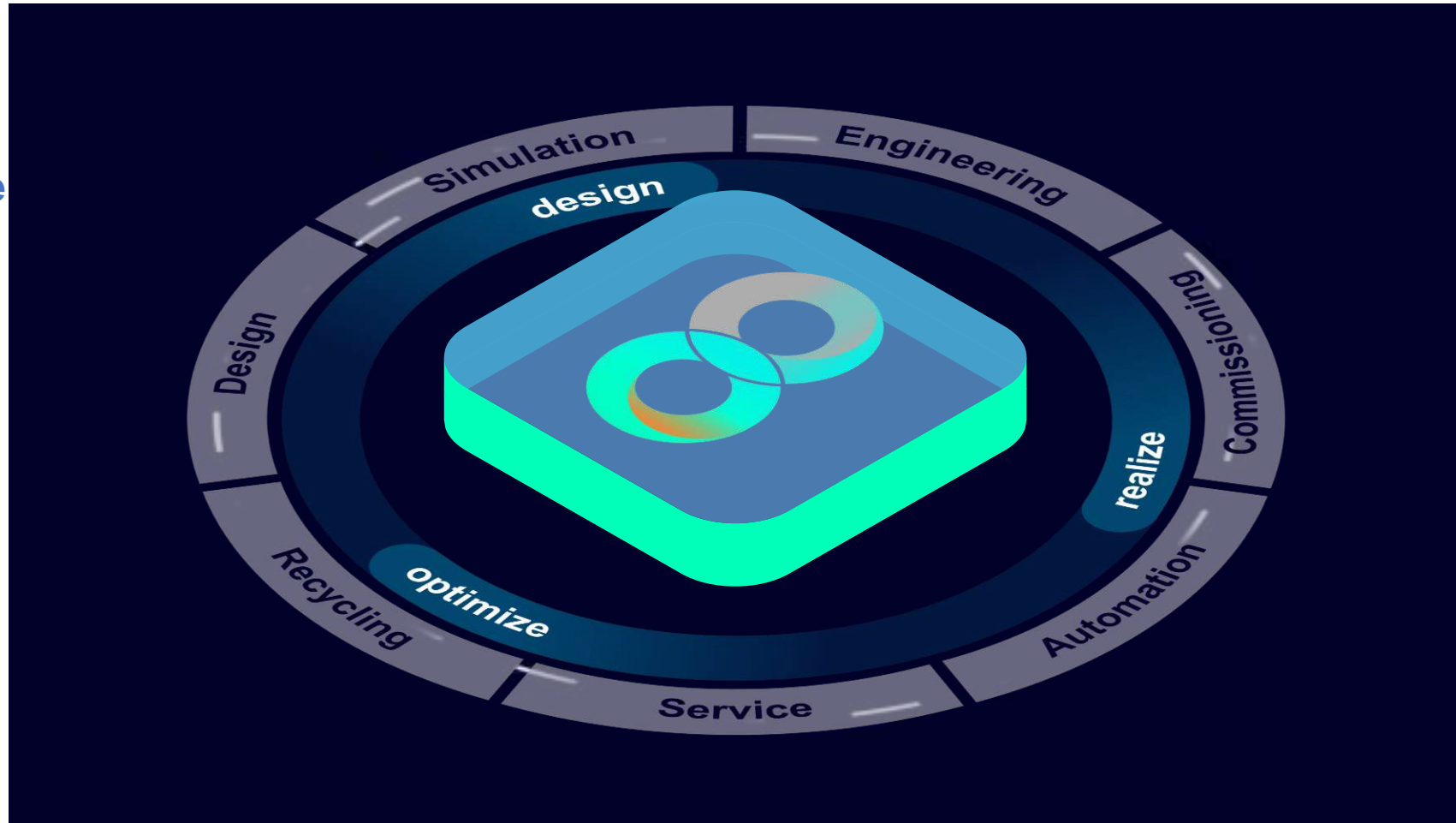
Leverage the infinite power of data

They're the foundation for flexible and efficient manufacturing.

Horizontal integration

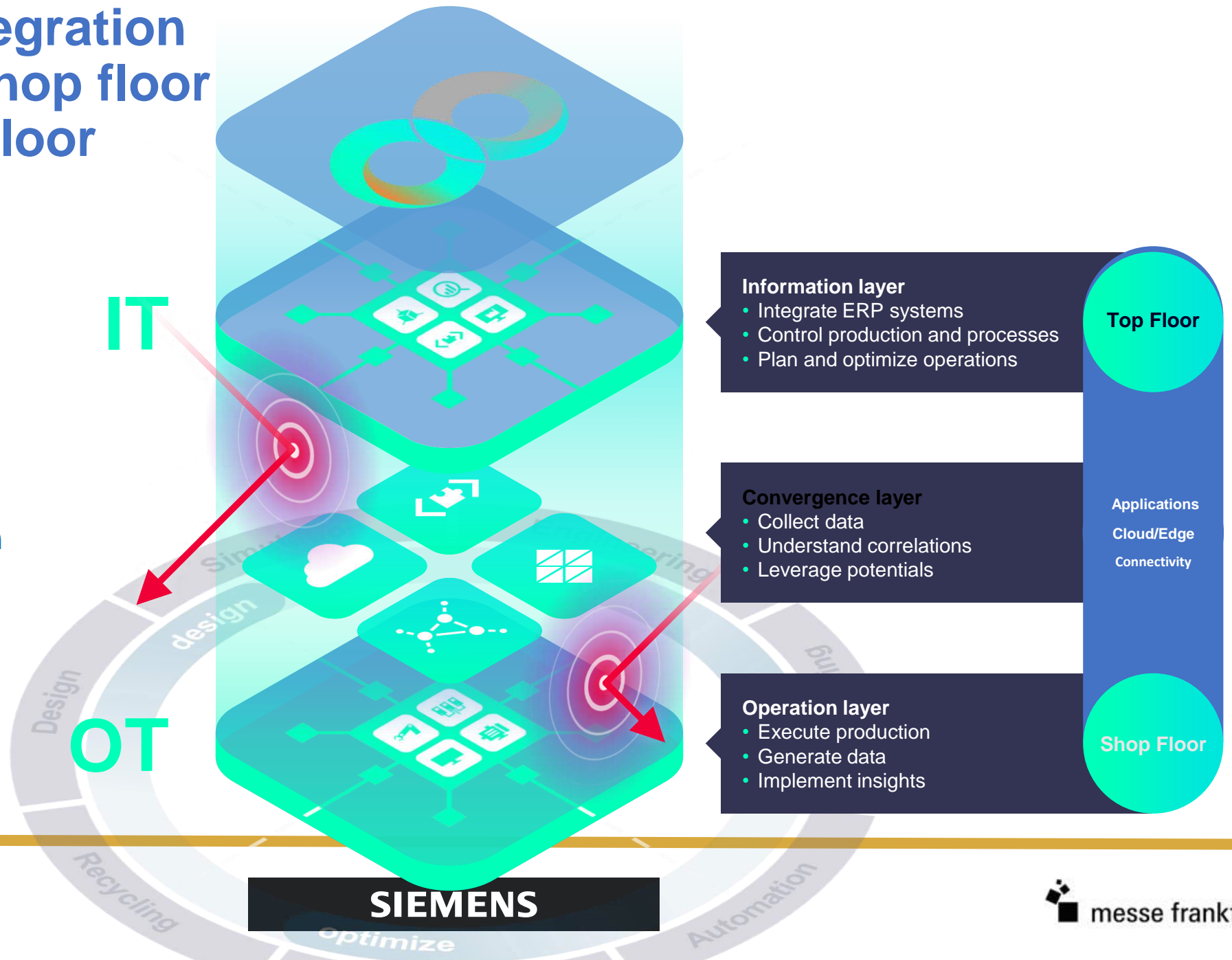
Seamless data flow along the entire value chain

The seamless integration of the entire value chain allows working in parallel to speed up processes.



Vertical integration Data from Shop floor to Top floor

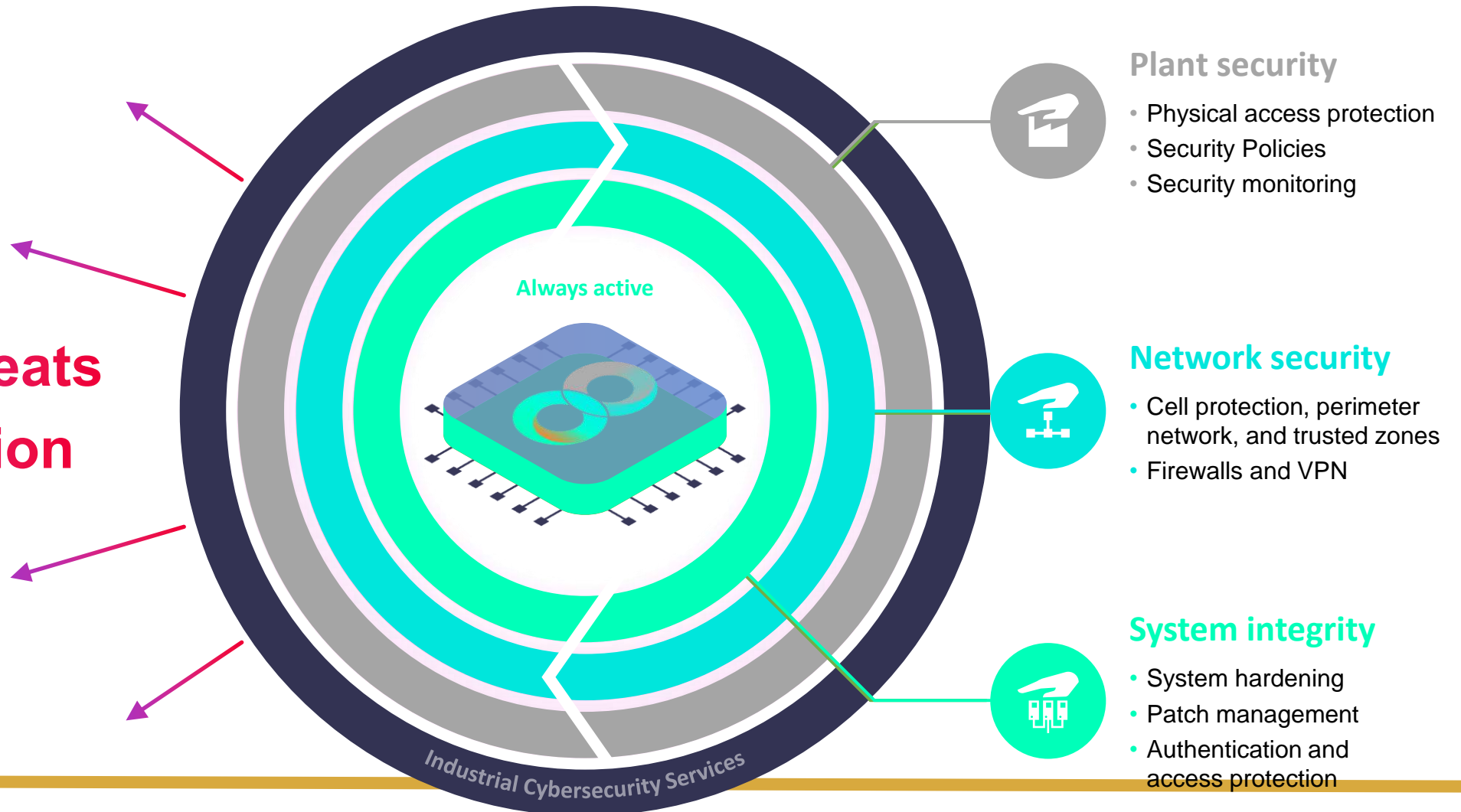
The convergence of IT and OT enables the Digital Enterprise – laying the groundwork for data-driven decision making.



Cybersecurity for Industry

Combine the real and digital worlds securely

Security threats demand action



Collaborating in growing Ecosystems

The Digital Enterprise goes beyond the boundaries of your own company. True efficiency and flexibility lies in the collaboration within a powerful ecosystem of partners, customers, start-ups and many more.



- Flexibility



VINGROUP

- From zero to cars in 21 months – from smartphones to ventilators in 3 weeks
 - **Customer challenge**
 - Shift from manufacturing smartphones to manufacturing ventilators
 - **Solution**
 - Medtronic design for ventilator
 - Digital twin for manufacturing
 - **Customer benefit**
 - Shift to ventilator manufacturing technology from scratch in three weeks
 - Were able to manufacture 55,000 ventilators/month

• Productivity



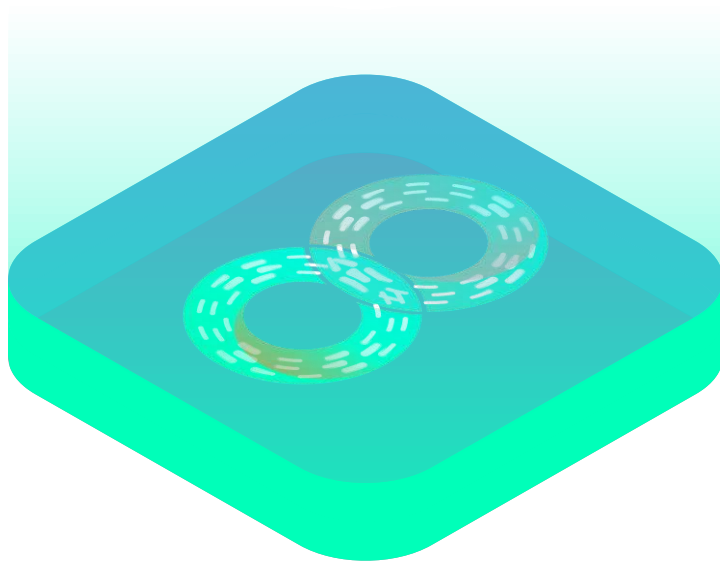
SWIRE COCA-COLA

- Significant expansion of productivity and increase in sustainability
 - Customer challenge
 - Improve line performance and availability
 - Solution
 - Tracking and analysis of downtimes
 - Customized manufacturing information system and mobile app for asset overview, faster fault diagnosis and predictive maintenance
 - Customer benefit
 - Unlock annual production capacity of 550 million cans
 - Starting point for building 18 digital plants in the future and saving 10 million kWh of electricity p.a.

Start your successful digital transformation now to create sustainable industrial innovation

Digital Enterprise

combines the real and digital worlds for continuous improvement of product and production in a data-driven industry.



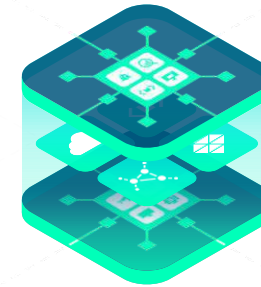
Digital Twins

for precise simulation and validation of products, machines, lines and complete plants. Digital Twins are the foundation for flexible and efficient product development and manufacturing.



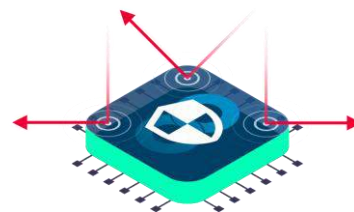
IT/OT convergence

is the fundament for data-driven decision making and transparency in a Digital Enterprise.



Cybersecurity

for a holistic security approach to protect your IP and data with a multi-layered "Defense in Depth" concept, strengthened by Zero Trust principles.

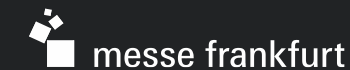


[GRAZIE PER L'ATTENZIONE]

Promosso da

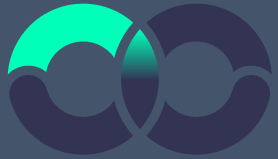


Organizzato da



Selected portfolio highlights

The Digital Twin for Products



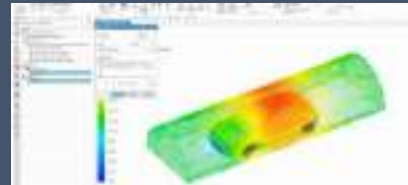
Simulation Software

Design Software



- **NX CAD/CAM**

Design, simulate, and perfect products in the virtual world



- **Simcenter**

Simulate the product's physical behavior and aerodynamics



- **Capital, Xpedition**

Develop integrated electrical and electronic systems



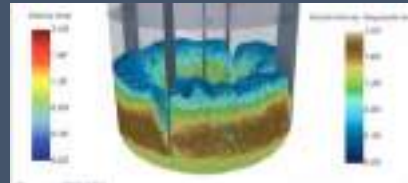
- **Polarion ALM**

Develop, simulate, validate, and manage embedded software



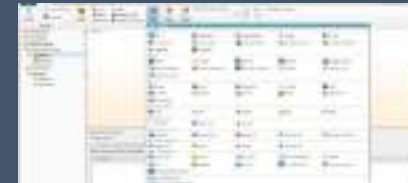
- **gProms**

Consistent, end-to-end data models for the entire lifecycle



- **Simcenter STAR-CCM+**

Engineer innovation with CFD-focused multiphysics simulation



- **Simcenter HEEDS**

Powerful design space exploration software package



- **Teamcenter**

Machine process planning and validation



- **NX Mechatronics Concept Designer**

Easy evaluation of different machine concepts



- **NX CAD**

Machine design



- **Simcenter**

Machine concept validation through multi-physical simulation

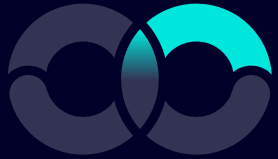


- **Automation Designer with TIA Portal**

Interdisciplinary engineering – from mechanical and electrical to automation

Selected portfolio highlights

The Digital Twin for Production



Simulation Software

Design Software

Automation Engineering



- **Teamcenter Manufacturing**

Plan and validate production processes



- **Assembly Line Planner**

Intuitive and 3D-focused
Body-in-White planning system



- **Tecnomatix Plant Simulation**

Simulate and optimize production
processes and material flow



- **Tecnomatix Process Simulate**

Simulate workflows and offline
programming of robots



- **COMOS**

Integrated plant management over the
entire lifecycle – from engineering to
operation



- **SIMIT**

Virtual commissioning and
operator training



- **PlantSight**

One complete, digital twin for the
process industry



- **Modular production with
Module Type Package**

Adapt your plant fast and efficiently
to new processes and demands



- **TIA Selection Tool and TIA
Portal**

Exchange planning data digitally and
platform-independently



- **TIA Portal and multiuser
functions**

Increase software quality and reduce
engineering costs with IT standards



- **TIA Portal with SIMATIC PLC SIM
Advanced, Tecnomatix NX MCD
and SIMATIC Machine Simulator**

Simulation and validation of machines with
virtual commissioning



- **Create MyVirtual Machine**

- **with SINUMERIK ONE**

Shorten machine commissioning and higher
flexibility in engineering