# Advanced Machine Engineering

Where engineering meets tomorrow



SIEMENS

# Industrial Machinery Market Trend

Customers drive customization

Smart machines

Hyper-automation

Global competition



SIEMENS


"

An explosion of complexity…



SIEMENS


"

…making the conventional challenges even more difficult to manage



SIEMENS

# Comprehensive Digital Twin

## Design

Product & Production development


## Realize

Manufacturing & Manufacturing Operations

## Optimize

Performance and maintenance

**Continuous product/ production improvement**



SIEMENS

# Catalyst for the Digital Enterprise


An integrated portfolio of software, services and an application development platform that speeds the digital transformation cycle and unlocks a powerful industrial network effect. Blurs the boundaries between traditional stand-alone engineering domains such as electrical, mechanical and software.

**Comprehensive**
**Digital Twin**

**Personalized**
**Adaptable/ Modern**

**Flexible**
**Open Ecosystem**

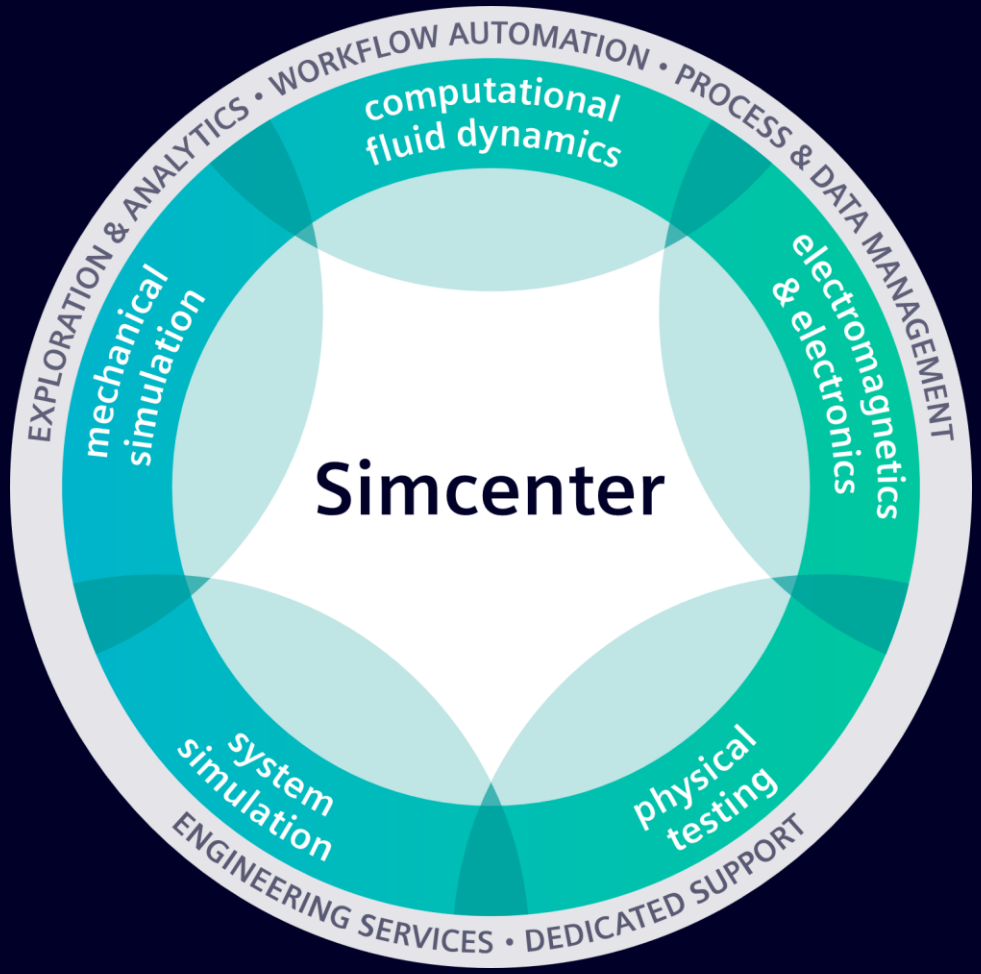
Where today meets tomorrow.



SIEMENS

# The beating heart

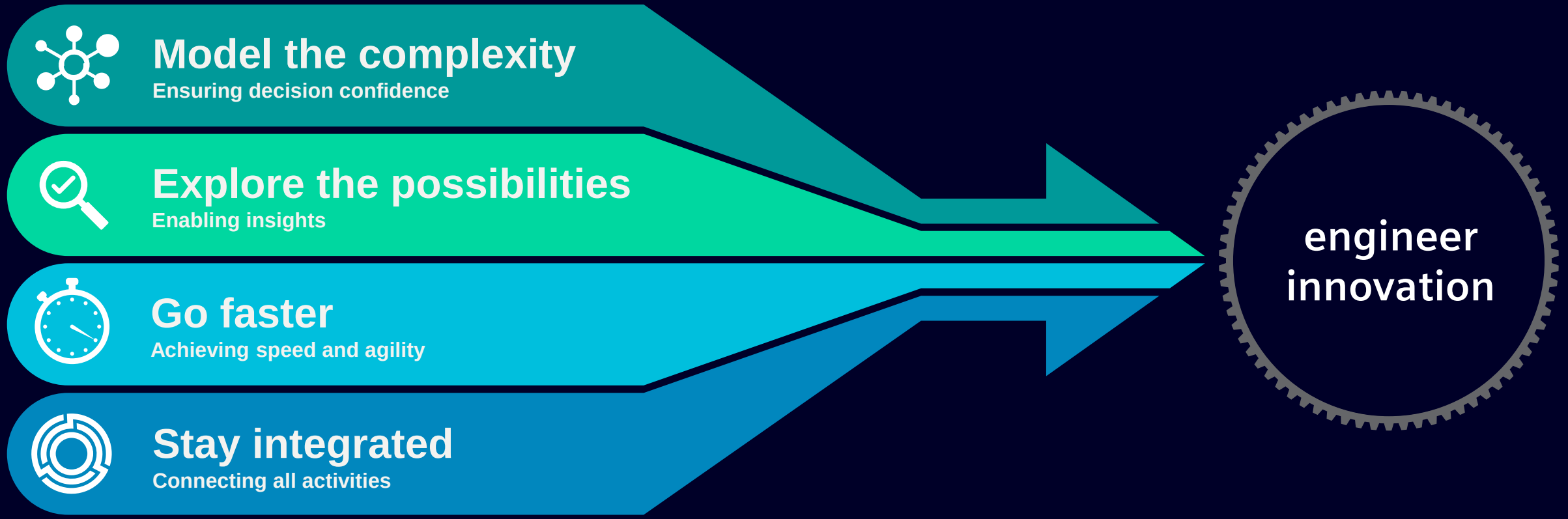
We believe that the comprehensive digital twin is critical to the future of engineering innovation and that simulation and test are the beating heart of the digital twin.
By providing you with insight into the real-world performance of your product or process, Simcenter allows you to accelerate innovation over the entire lifecycle.






SIEMENS

# Where engineering meets tomorrow
# Investment imperatives for a comprehensive digital twin strategy






SIEMENS

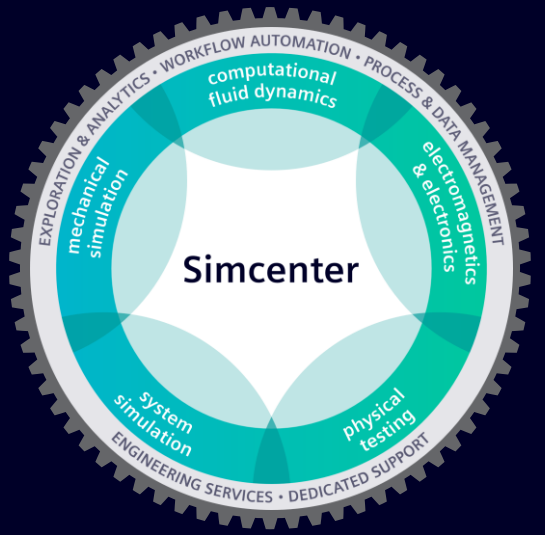
# Where engineering meets tomorrow
# Investment imperatives for a comprehensive digital twin strategy

## Model the complexity
**Ensuring decision confidence**

## Explore the possibilities
**Enabling insights**

## Go faster
**Achieving speed and agility**

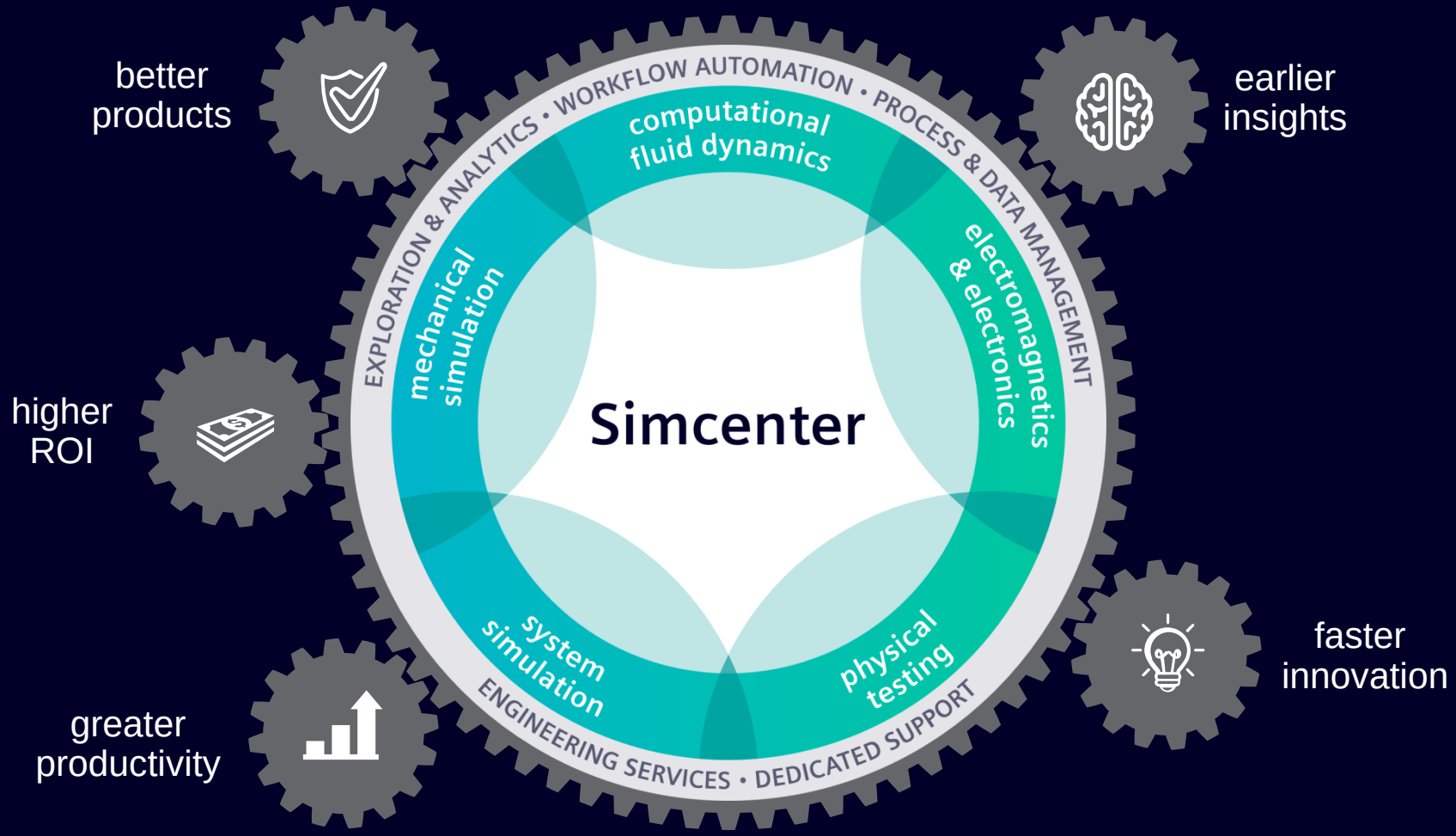
## Stay integrated
**Connecting all activities**






SIEMENS

# Simcenter
# Driving customer benefits






SIEMENS

# Virtual Sensing

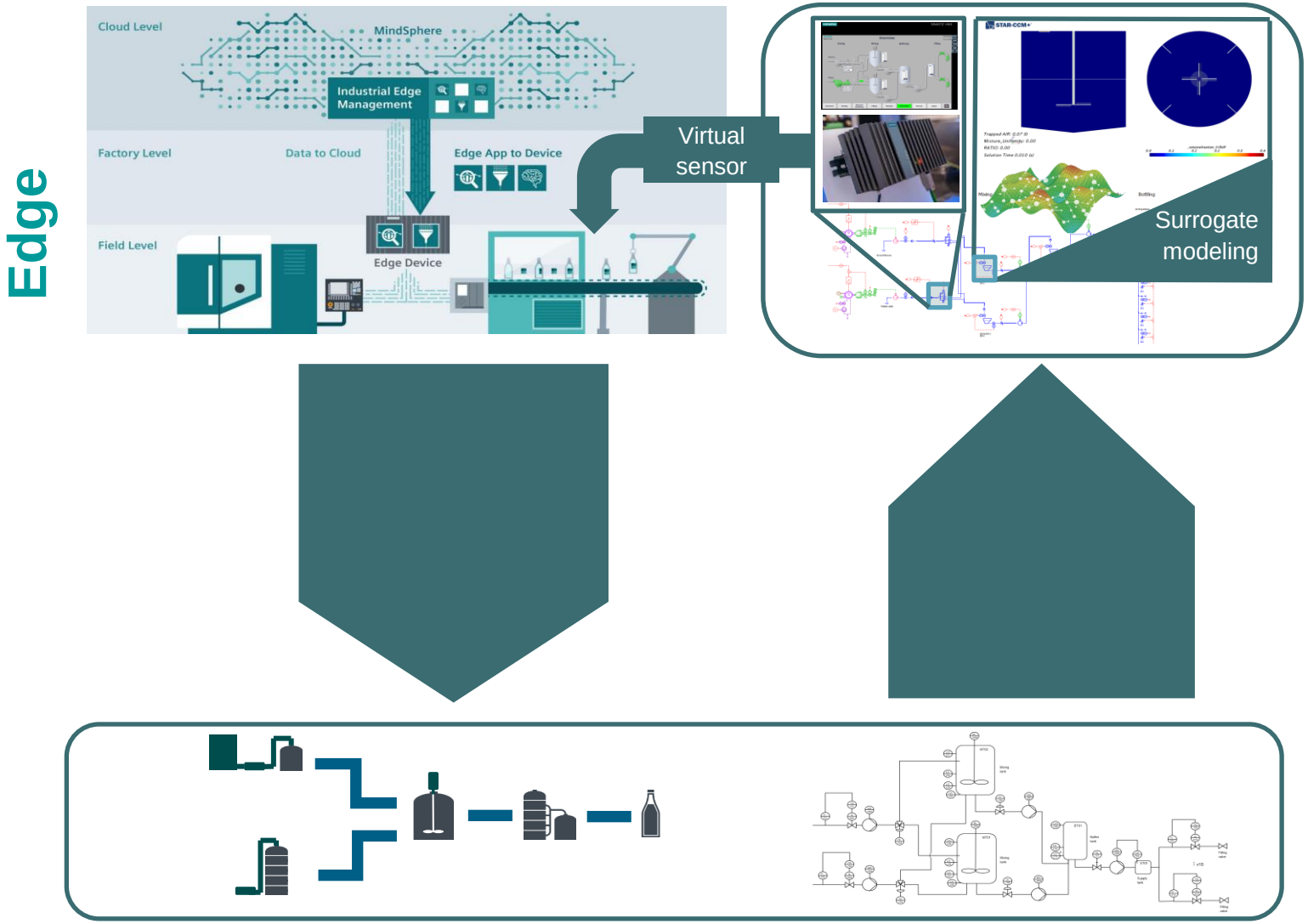
Realtime production monitoring and simulation.

Get access to infinite data to build AI models

Improve knowledge

Improve productivity, efficiency, quality and provide better services

Get access remotely on how machine or plant perform






SIEMENS

# Digital Logistics Optimization

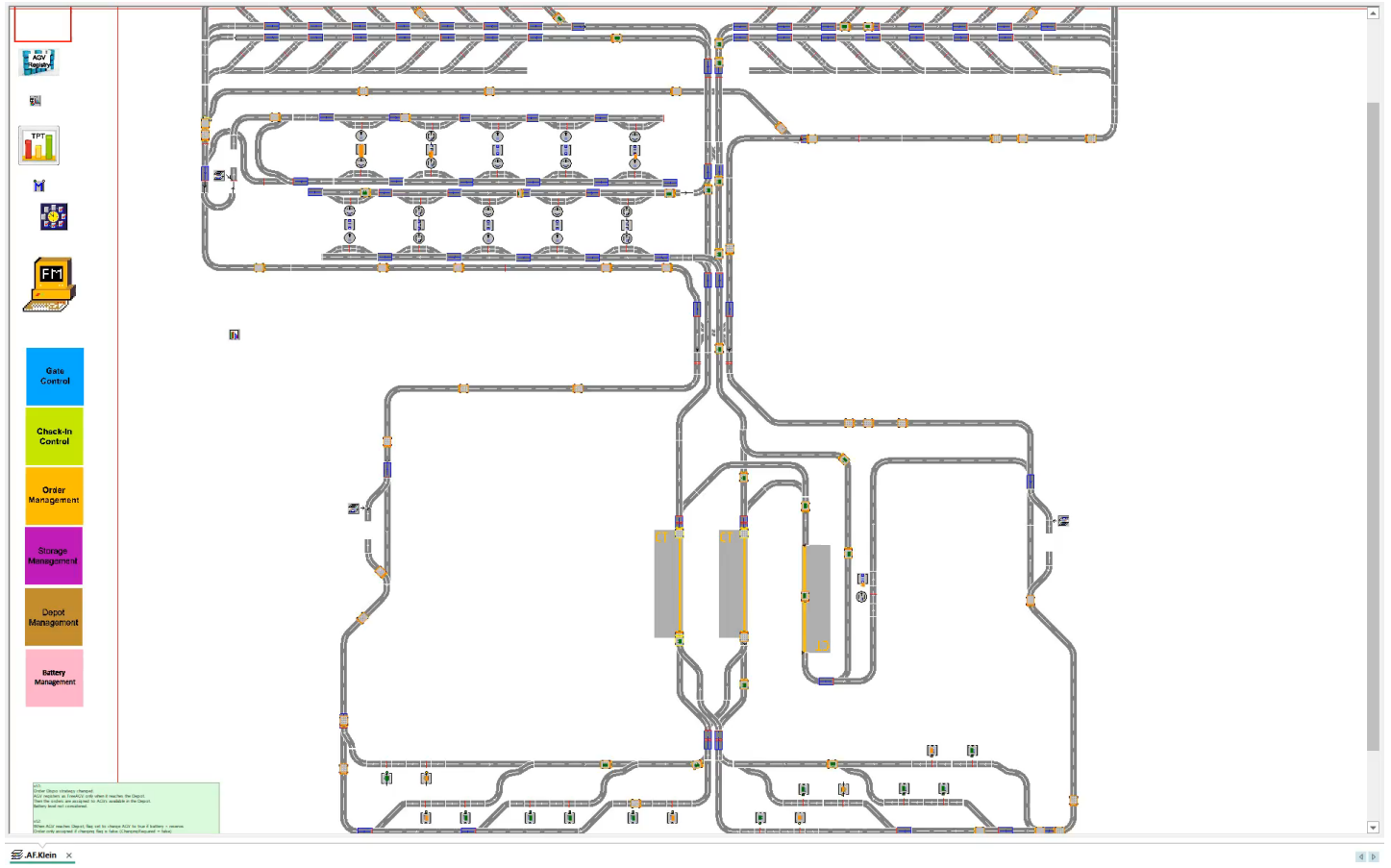
Complex logistics scenario

Changing scheduling

Number of AGV’s & charging station

Charging strategy…

..13 Variable to take in account




AGVs reduced by 13%

Charging station reduced by 17%

Operation cost reduced by 14%

Dependency of battery management

Efficient search for system configuration



SIEMENS

# Digital Factory Optimization

Flexible production line

Changing production sequence based on customers requirements

Bottleneck reduce productivity and efficiency.

Number of AGV’s

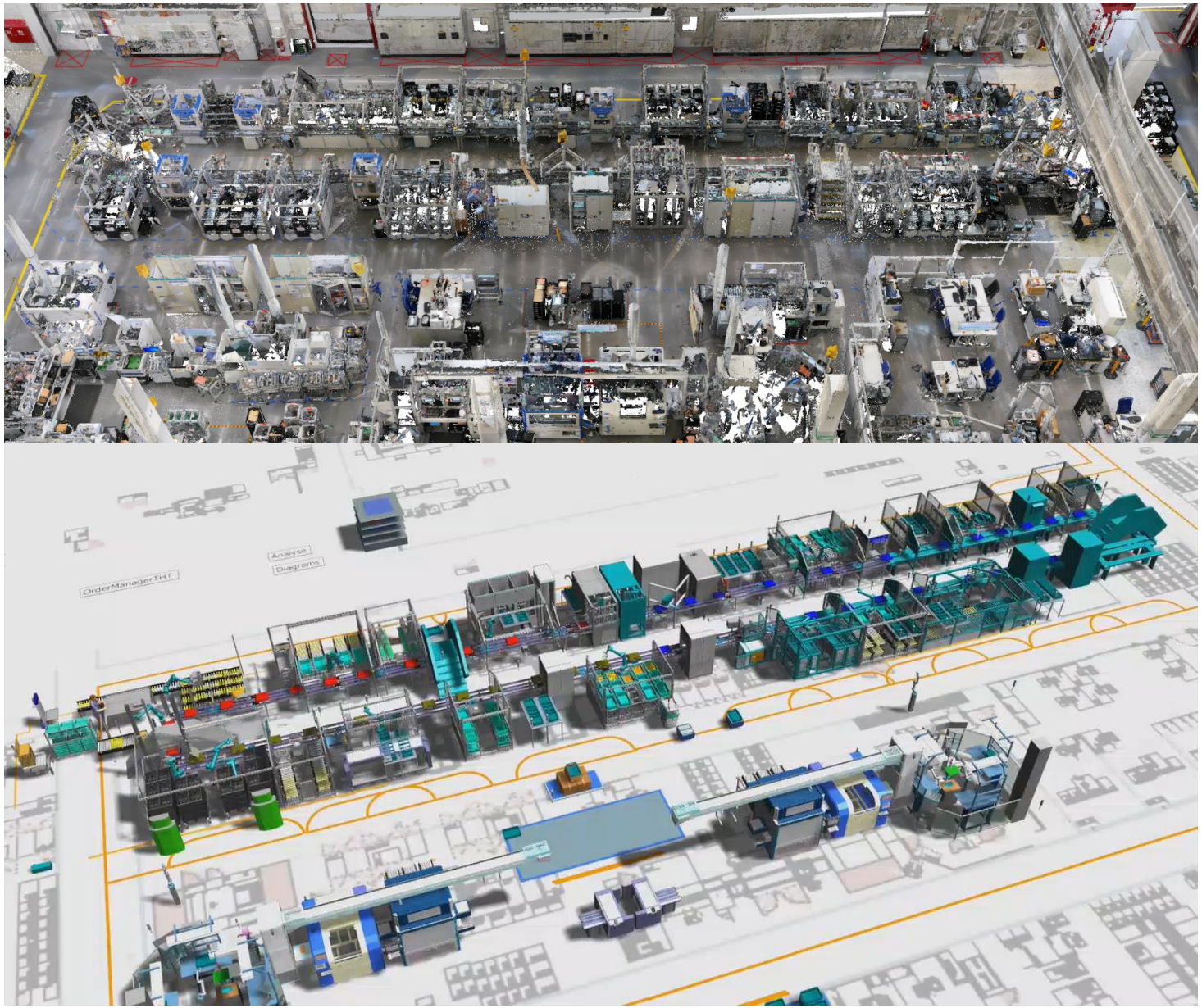
Logistics sequence and storage

Up to 36 parameters

Materials reduced by 17%

Pallet on the line reduced by 42%

Save 20 minutes per day



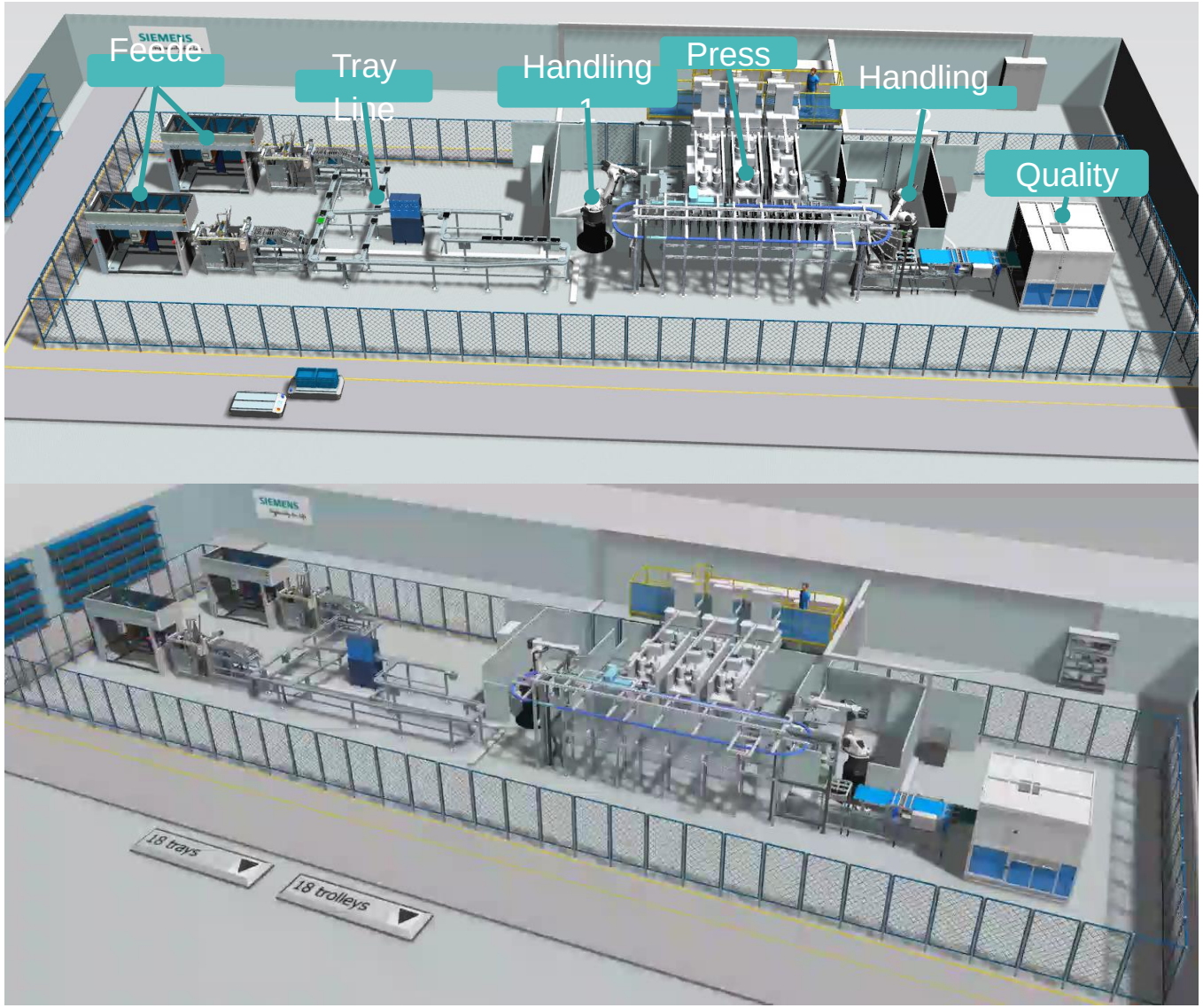



SIEMENS

# Digital Production Optimization

Disruptive approach to get competitive advantages
Reduce setup time
Improve quality
Improve planning
Improve efficiency
Reduce time to market

Increased output by 18%
reduced set-up time
Process industrialized and digitalized






SIEMENS

# Better together


Engineering powerhouse that has the strength and vision to continue pushing boundaries

Simcenter is an integral part of a broad portfolio including MCAD, PLM and EDA

Performance engineering for all phases for closed-loop product development

Unique combination that is essential for IoT/digital twin strategies deployment

Skilled team with industry expertise to help you gain competitive advantage



SIEMENS

# Thank you



SIEMENS