

Siemens Advanta Consulting

# Digital Twins in der Intralogistik

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[siemens-advanta.com/consulting](https://www.siemens-advanta.com/consulting)

# Table Of Content

## 01 Introduction Siemens Advanta

Siemens Advanta Consulting is a global consulting firm playing a key role in Siemens' digital journey

**SIEMENS**  
*Ingenuity for life*

We enable Siemens and its clients globally

Focus industries

- Healthcare & Life Sciences
- Manufacturing
- Buildings & Districts
- Utilities
- Automotive & New Mobility
- Oil & Gas

25 years of experience

500+ clients globally

700+ projects every year

100+ factories optimized in the last two years

SIEMENS ADVANTA	Function	Count
Strategy Consulting	1	1000
Digital Consulting	1	1000
Operational Consulting	1	1000
SIEMENS ADVANTA	Department	Count
Development Services	1	7,500
IT Solutions	1	7,500
Software Development	1	7,500
SIEMENS ADVANTA	Location	Count
Product Solutions	1	300
Data Services	1	300
Application Innovation	1	300

Source: Siemens Advanta Consulting

## 02 Digital Twin



## 03 Logistics concept



## 04 Use Case



## 05 Contacts

**YOUR CONTACTS**  
@ Siemens Advanta Consulting

**SIEMENS**  
*Ingenuity for life*

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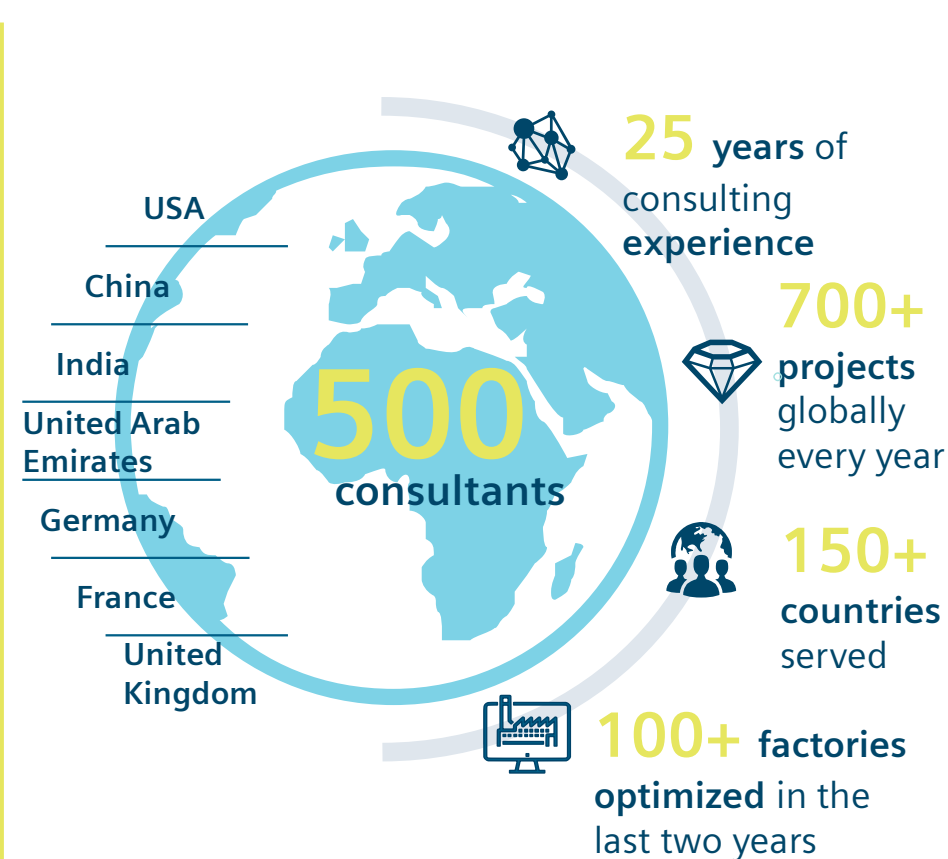
# INTRODUCTION

Who we are

# Siemens Advanta Consulting is a global consulting firm playing a key role in Siemens' digital journey

<p><b>SIEMENS ADVANTA</b> Consulting</p> <ul style="list-style-type: none"> <li>• Strategy Consulting</li> <li>• Digital Consulting</li> <li>• Operations Consulting</li> </ul>	<p>~500</p>
<p><b>SIEMENS ADVANTA</b> Solutions</p> <ul style="list-style-type: none"> <li>• Platform Solutions</li> <li>• Data Services</li> <li>• Application Innovation</li> </ul>	<p>~300</p>
<p><b>SIEMENS ADVANTA</b> Development</p> <ul style="list-style-type: none"> <li>• Development Services</li> <li>• IT Solutions</li> <li>• Solution Engineering</li> </ul>	<p>~7,500</p>

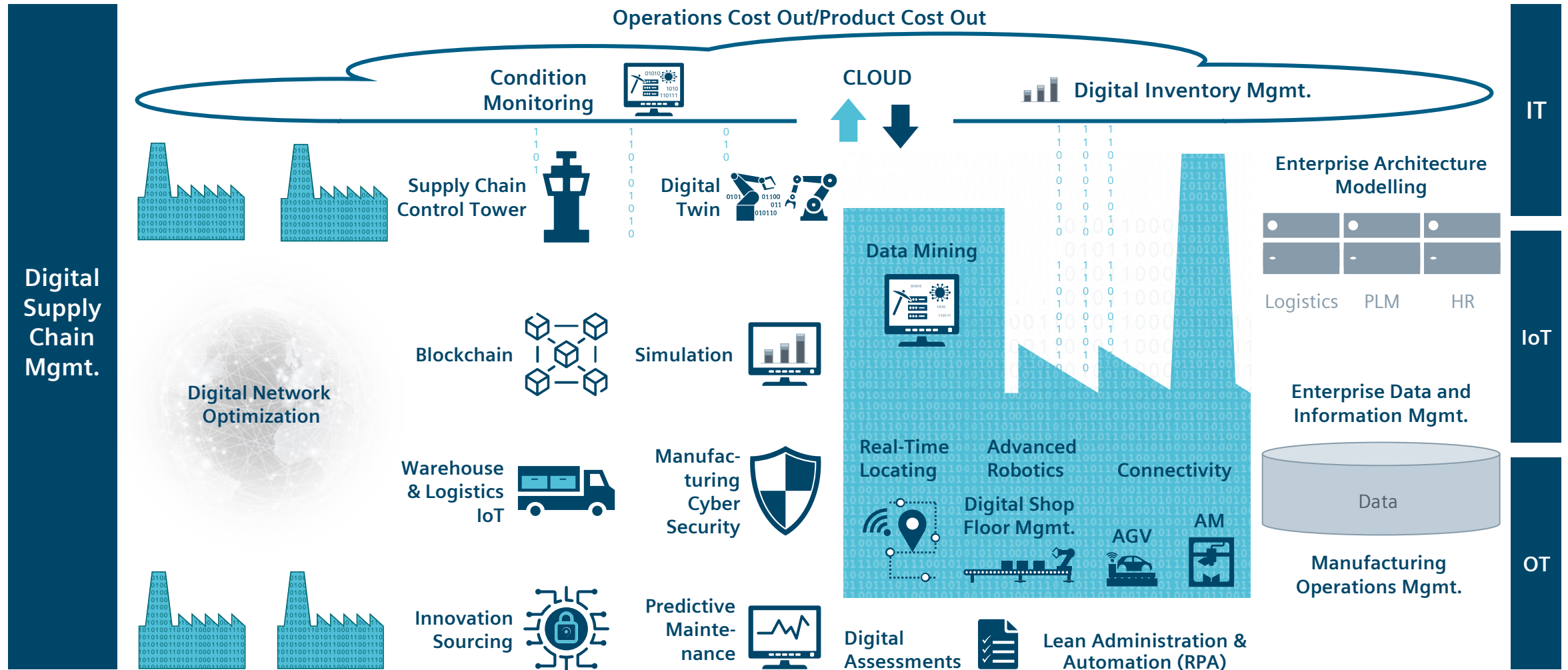
## We enable Siemens and its clients globally



## Focus industries

- Healthcare & Lifesciences
- Manufacturing
- Buildings & Districts
- Utilities
- Automotive & New Mobility
- Oil & Gas

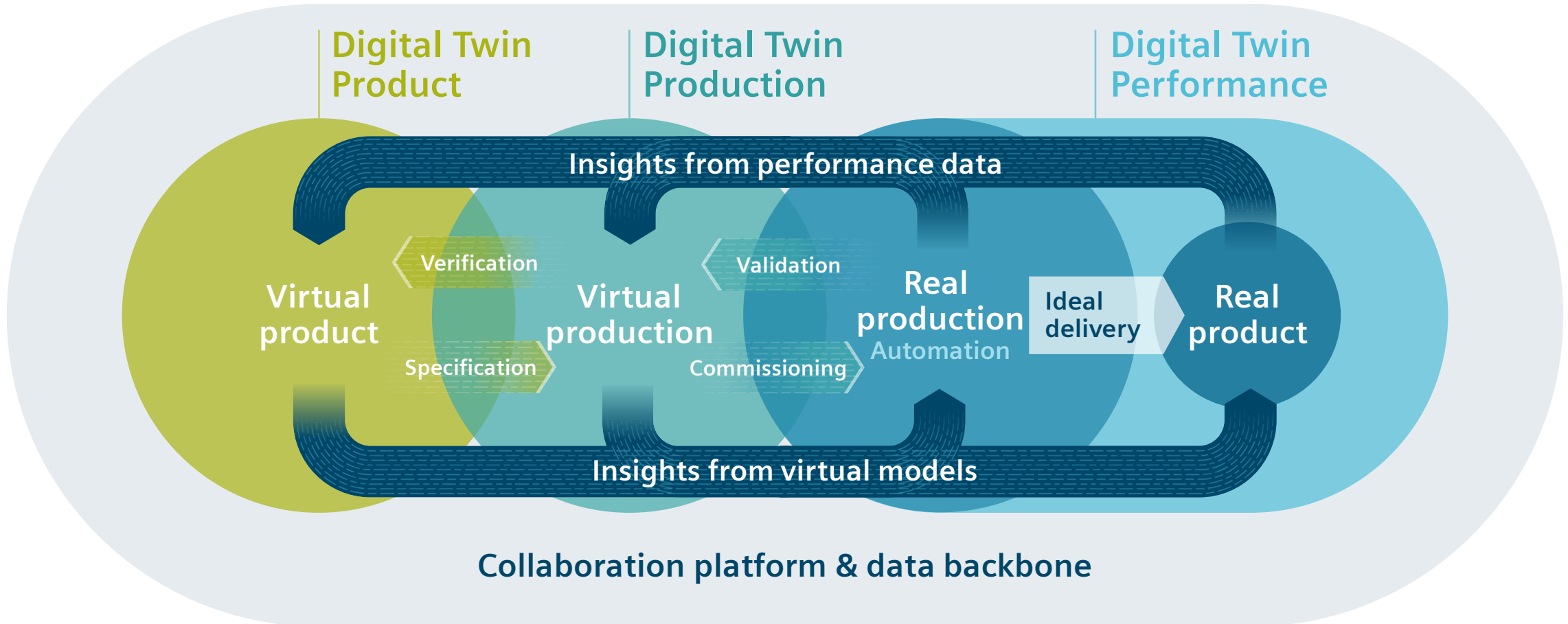
# We design and establish supply chains based on competencies and expertise in production, logistics & procurement



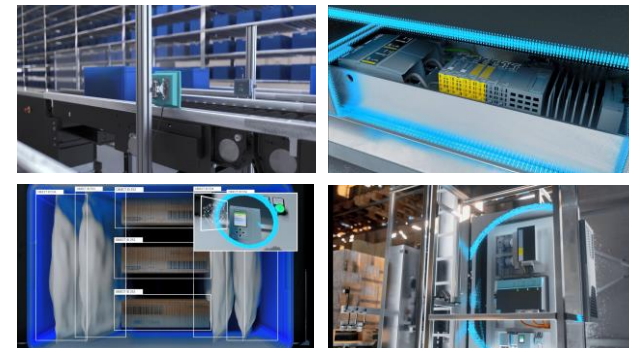
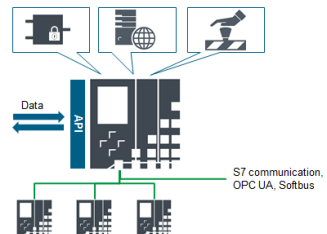
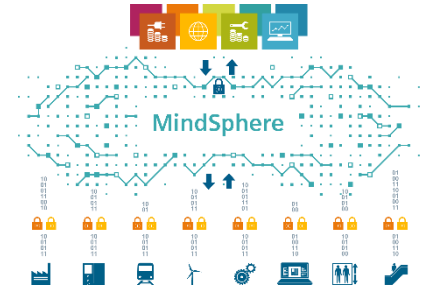
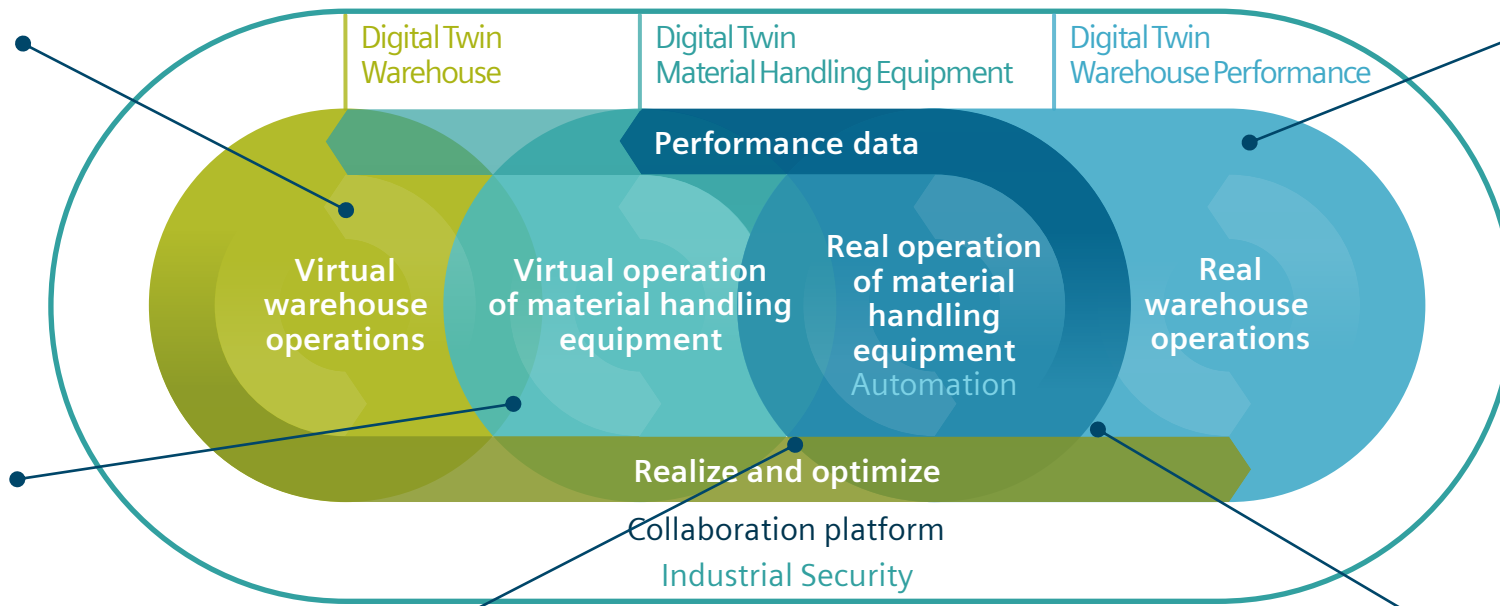
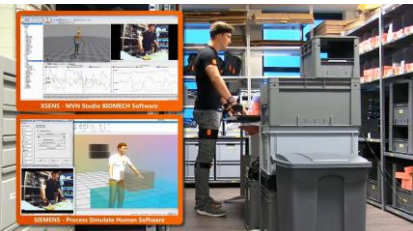
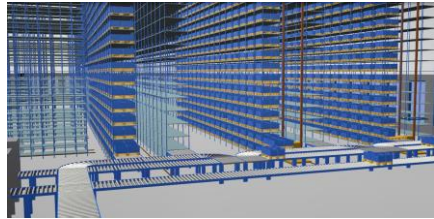
# DIGITAL TWIN

Our understanding

# The Digital Twin can be applied to Product, Production, and Performance



# The Digital Twin in Intralogistics





# LOGISTICS CONCEPT

Approach

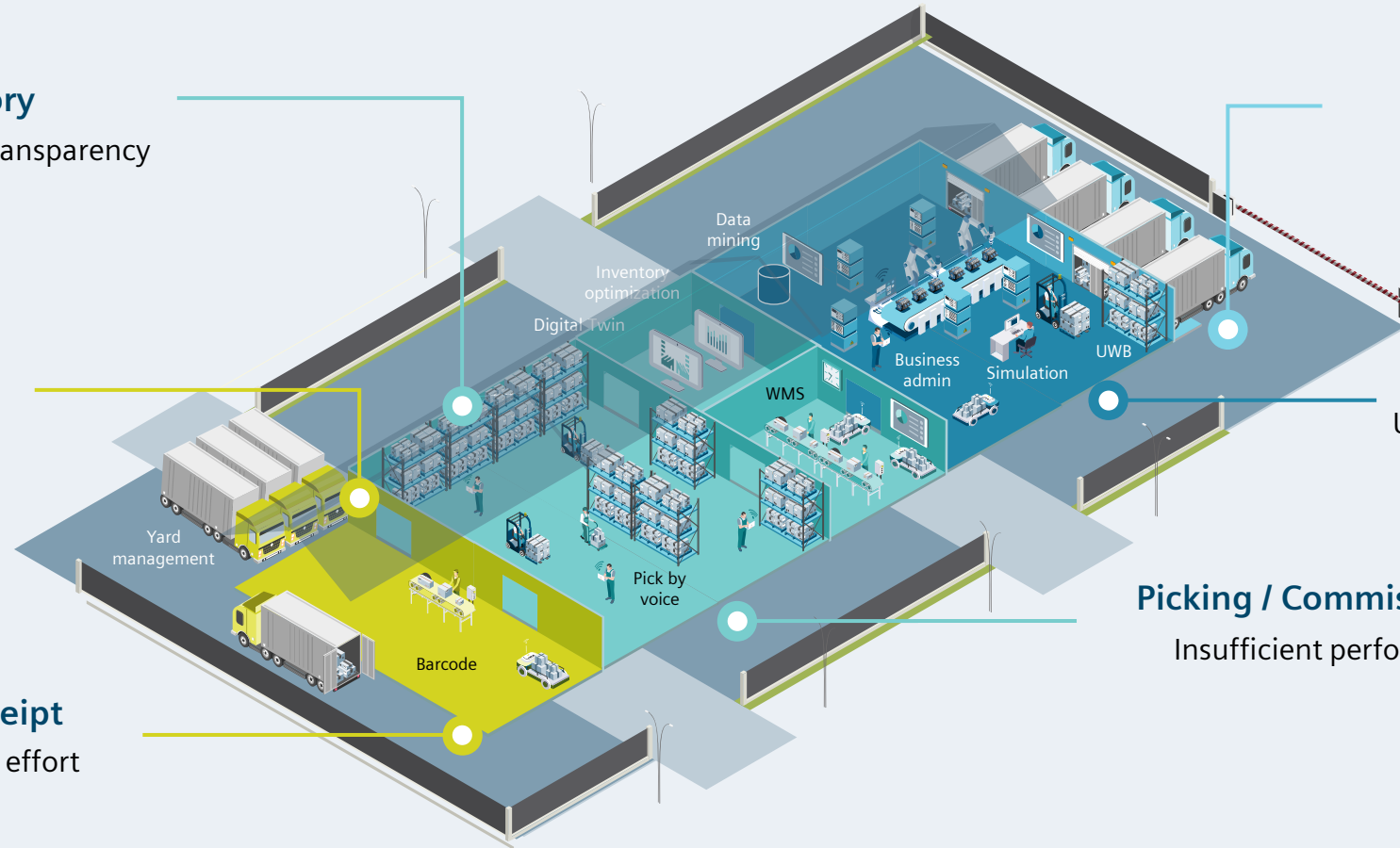
# Challenges for Plant Logistics

*Examples*

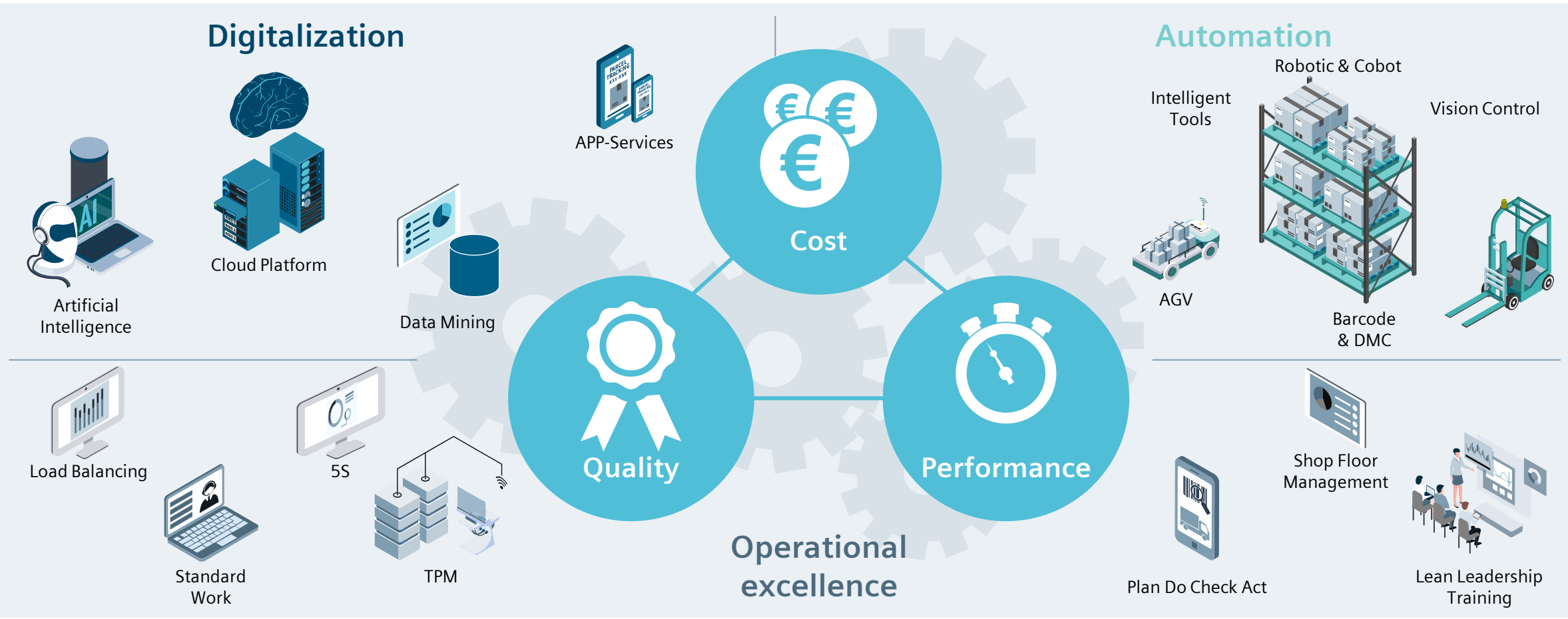
**Inventory**  
Missing holistic transparency

**Put away**  
Labor intensive

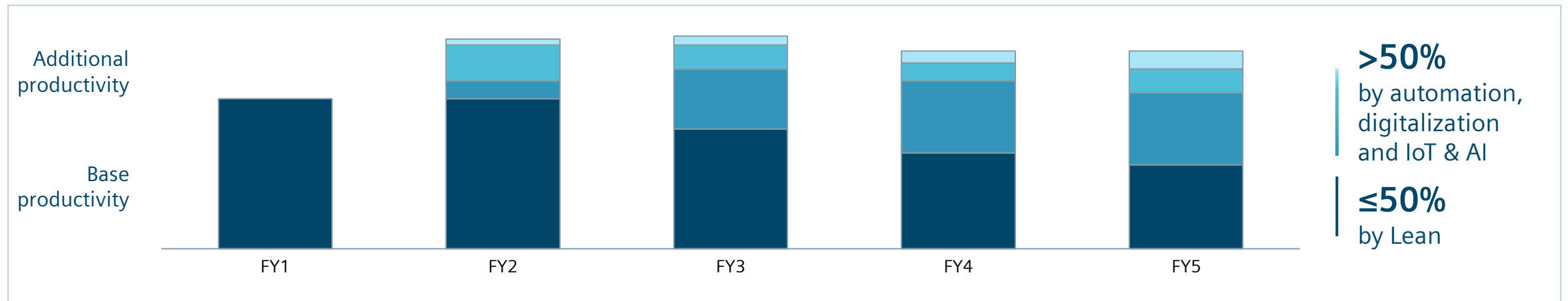
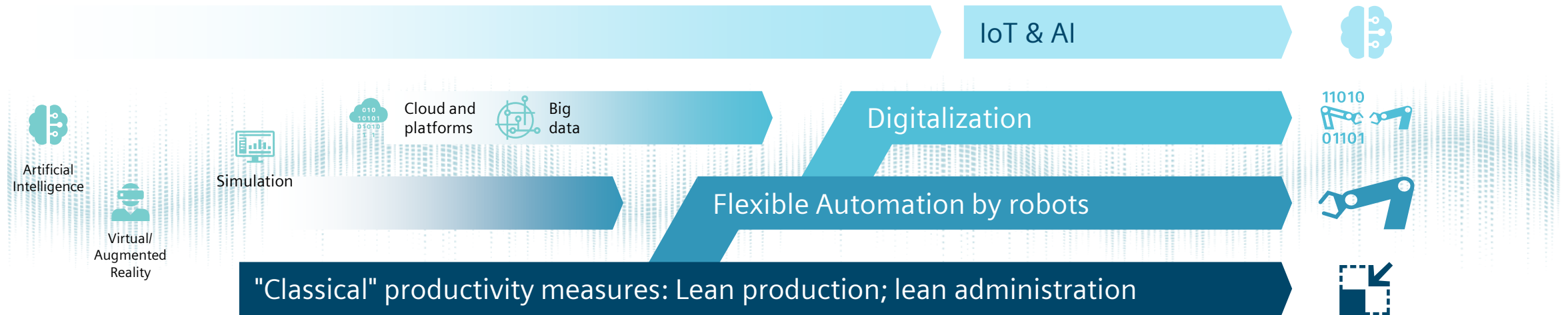
**Goods receipt**  
High manual effort



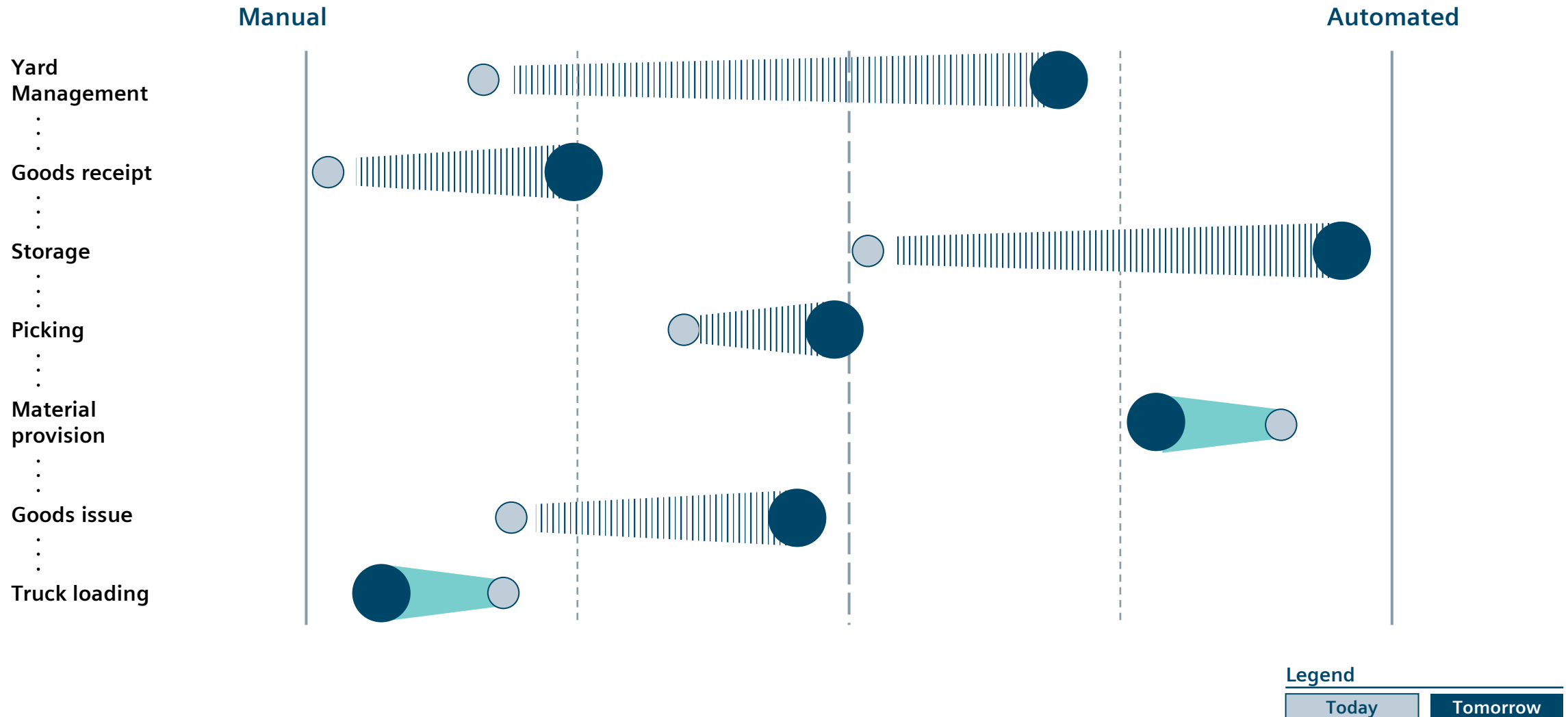
# Intelligent Plant Logistics



# From process optimization to IoT & AI usage



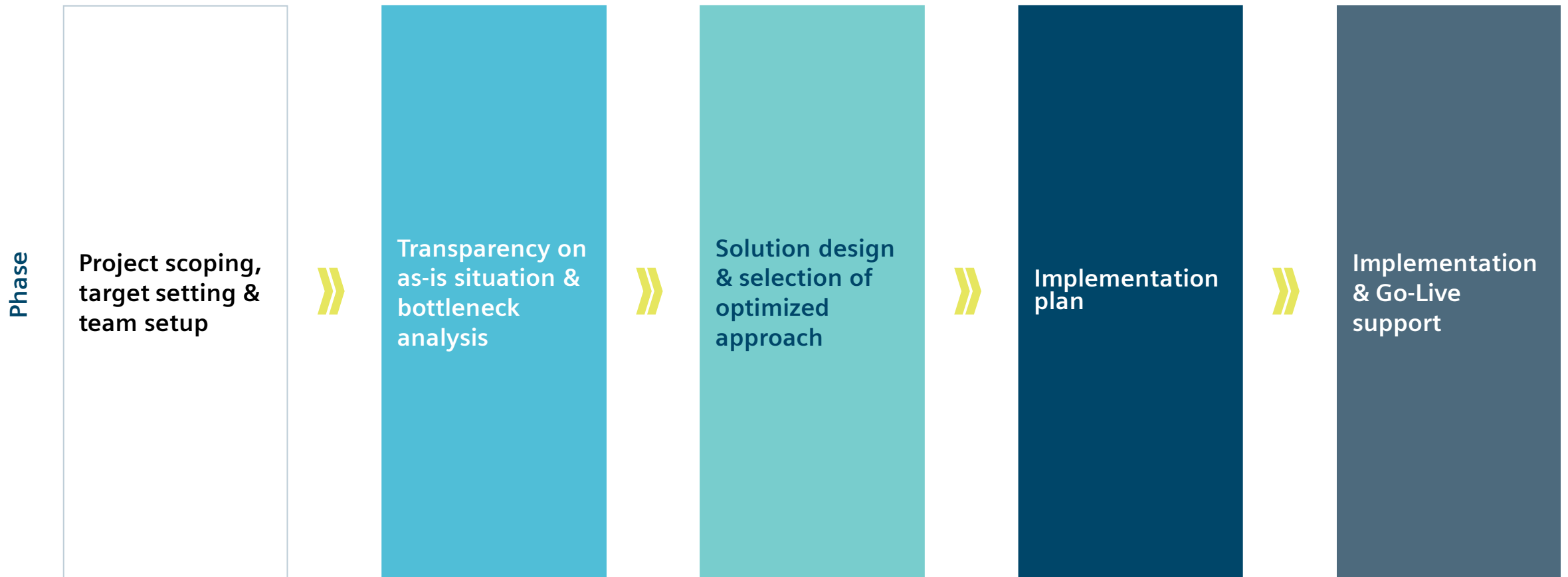
# Intelligent automation will improve process challenges



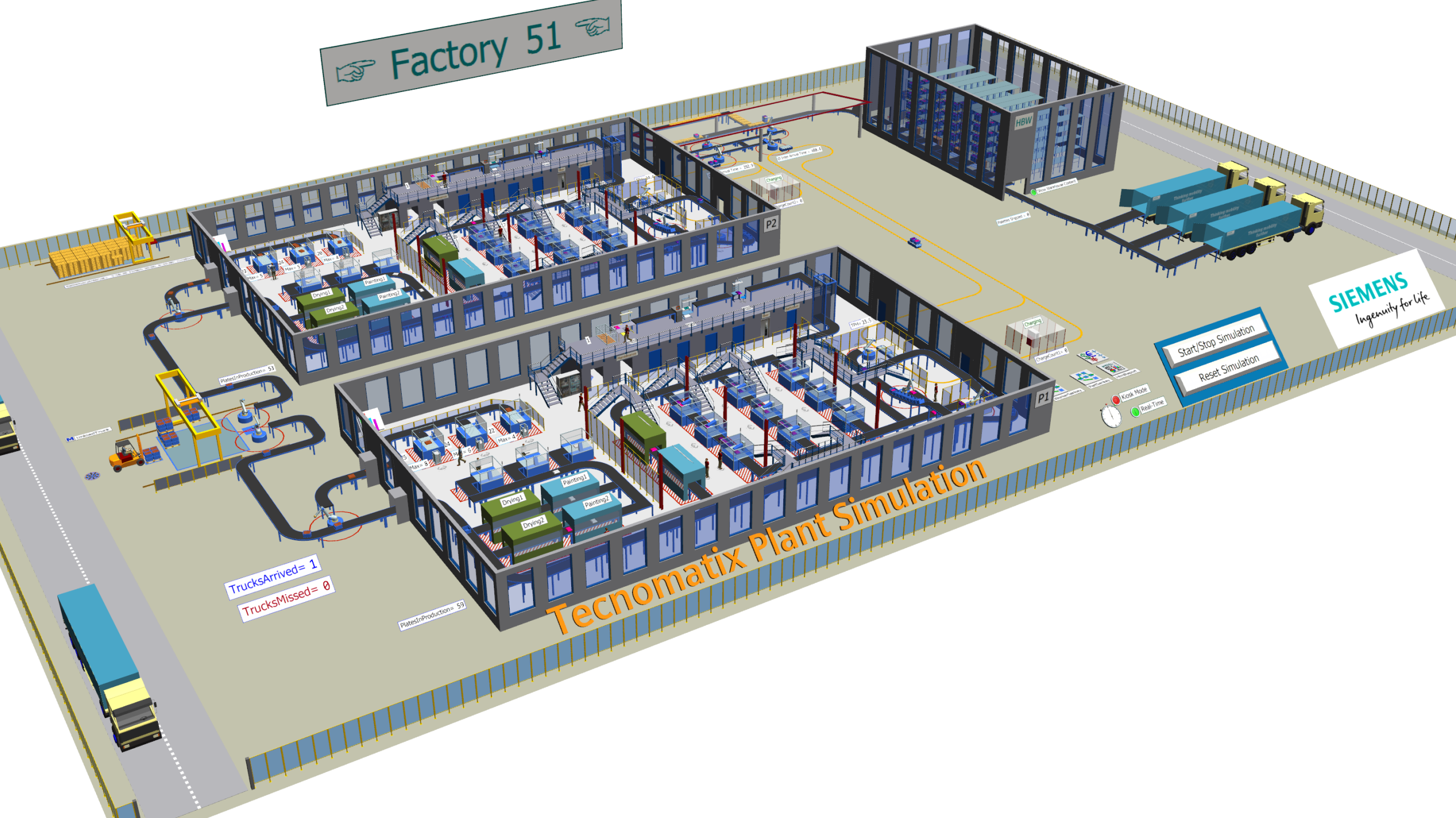
# DIGITAL TWIN IN DER INTRALOGITIK

Use Case

# Advanta Consulting approach to optimize logistics processes



# Factory 51



TrucksArrived= 1  
TrucksMissed= 0

PlatesInProduction= 53

## Tecnomatix Plant Simulation

Start/Stop Simulation  
Reset Simulation

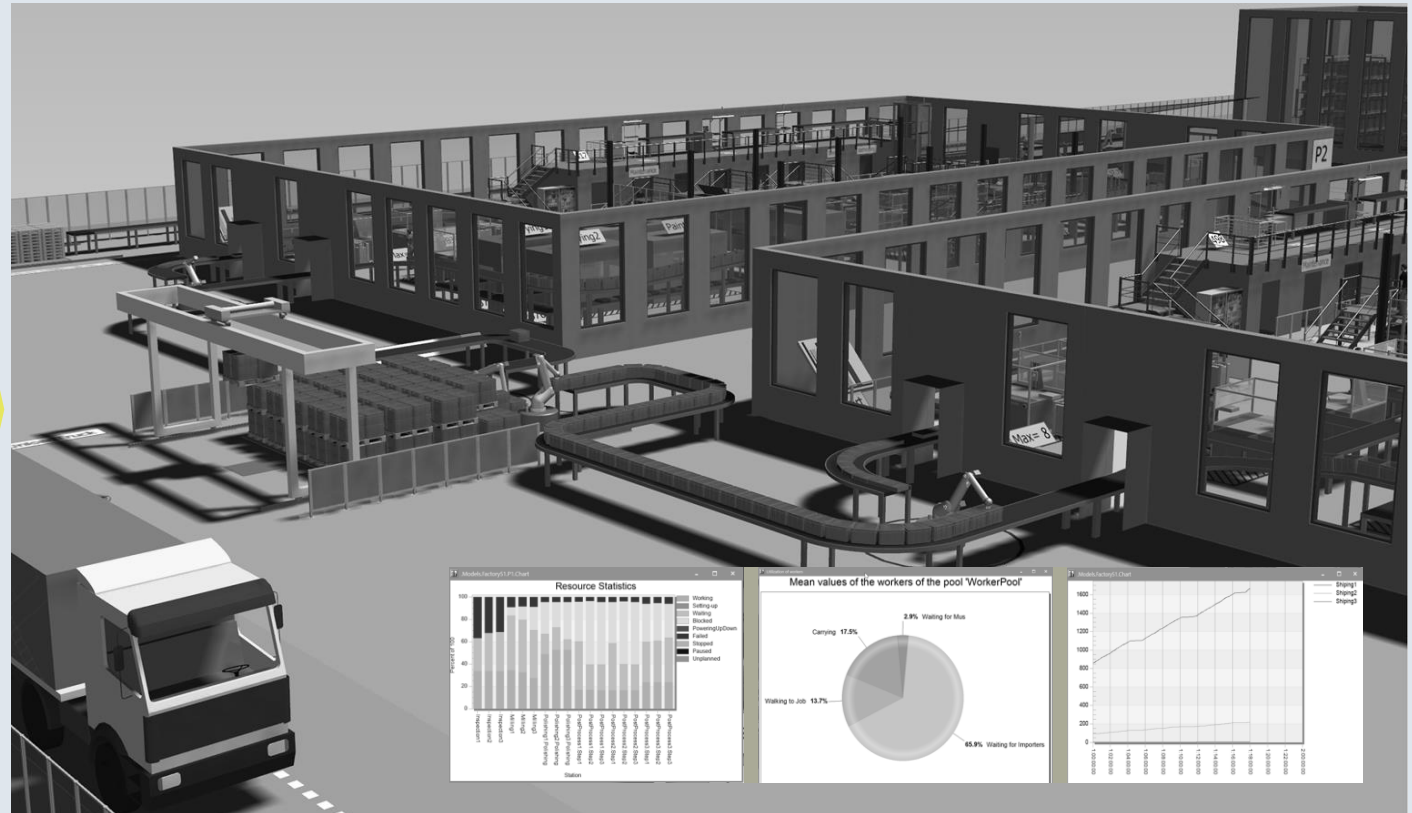
SIEMENS  
Ingenuity for life



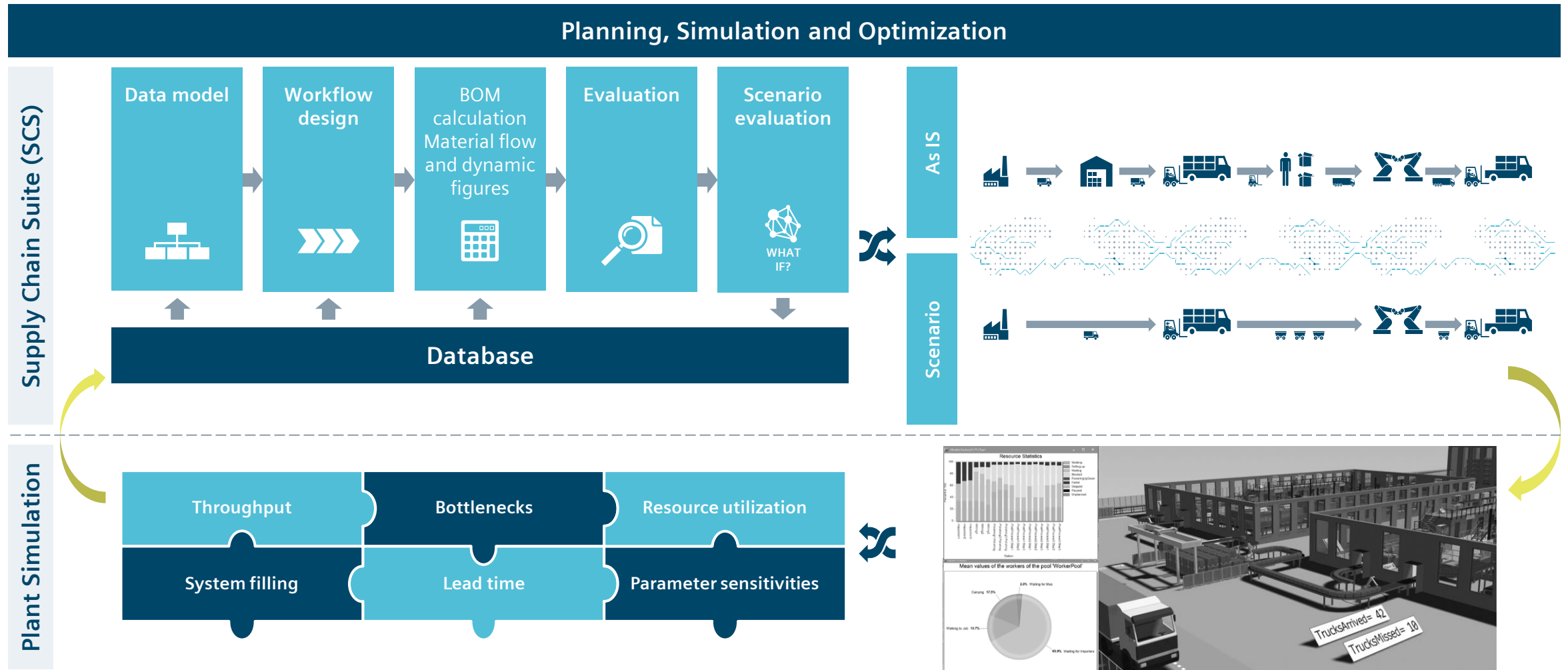
# Material flow simulation to evaluate and improve intralogistics

## Exemplary key questions

- How to **dimension a intralogistics system** with the optimal number of equipment (i.e. number of AGVs/tugger trains/etc.)?
- Which is the **right intralogistics concept and automation level** for the system?
- What is the **right number of employees** to supply all production lines?
- Where is the **bottleneck** if production orders change during production?



# Connecting the Siemens Digital Logistic - Supply Chain Suite (SCS) and Plant Simulation



## Benefits at a glance



**-60%**  
Lead Time

**Optimize** processes, lead times, and costs to gain maximum **efficiency** as well as **flexibility**



**+20%**  
Productivity

**Validate** your **investment** and capacity planning



**-30%**  
Planning Time

**Validate environmental improvements** without interfering the running processes



**-60%**  
Inventory

**Reduce** working capital, optimized material flow and improved predictability

**> A Digital Twin boosts your performance to the next level**

# YOUR CONTACTS

## @ Siemens Advanta Consulting



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