



# Continuously optimizing with the Digital Enterprise





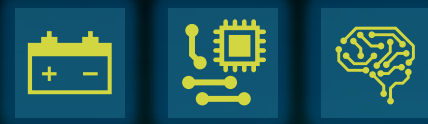


# Continuous optimization

Variety of drive concepts



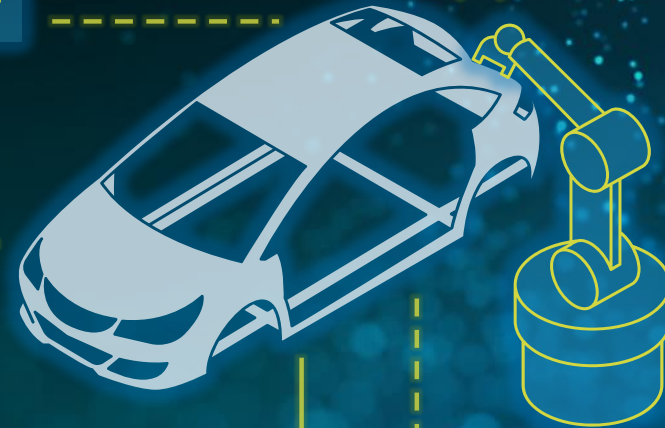
Future mobility requirements



Additive Manufacturing



Innovative product development



Automated Guided Vehicles

Integration of new value chains









## Example: Certification of autonomous driving functions – based on massive simulated testing







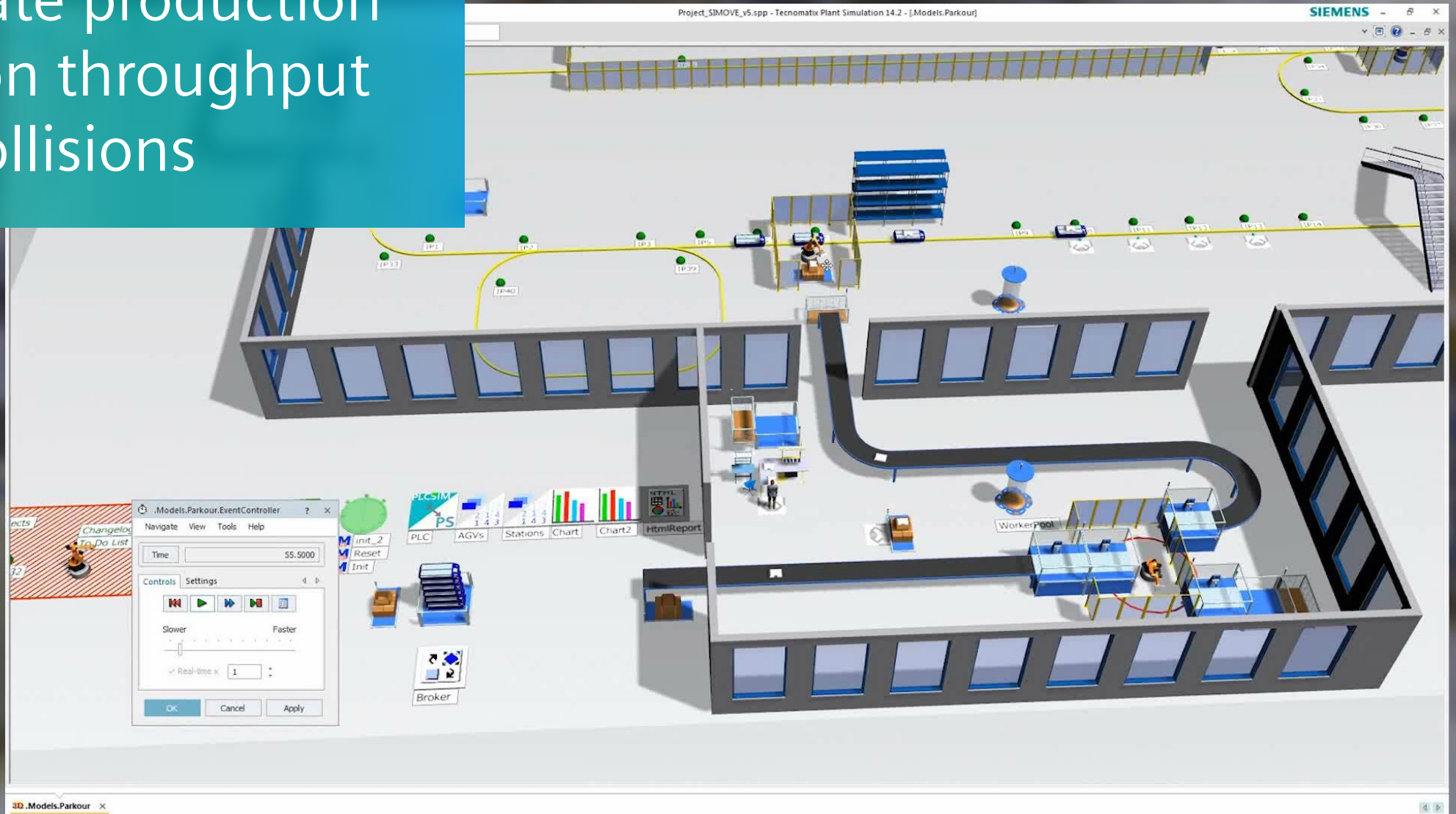


Addressing production complexity  
Flexible production  
concepts with  
Automated Guided  
Vehicles (AGVs)



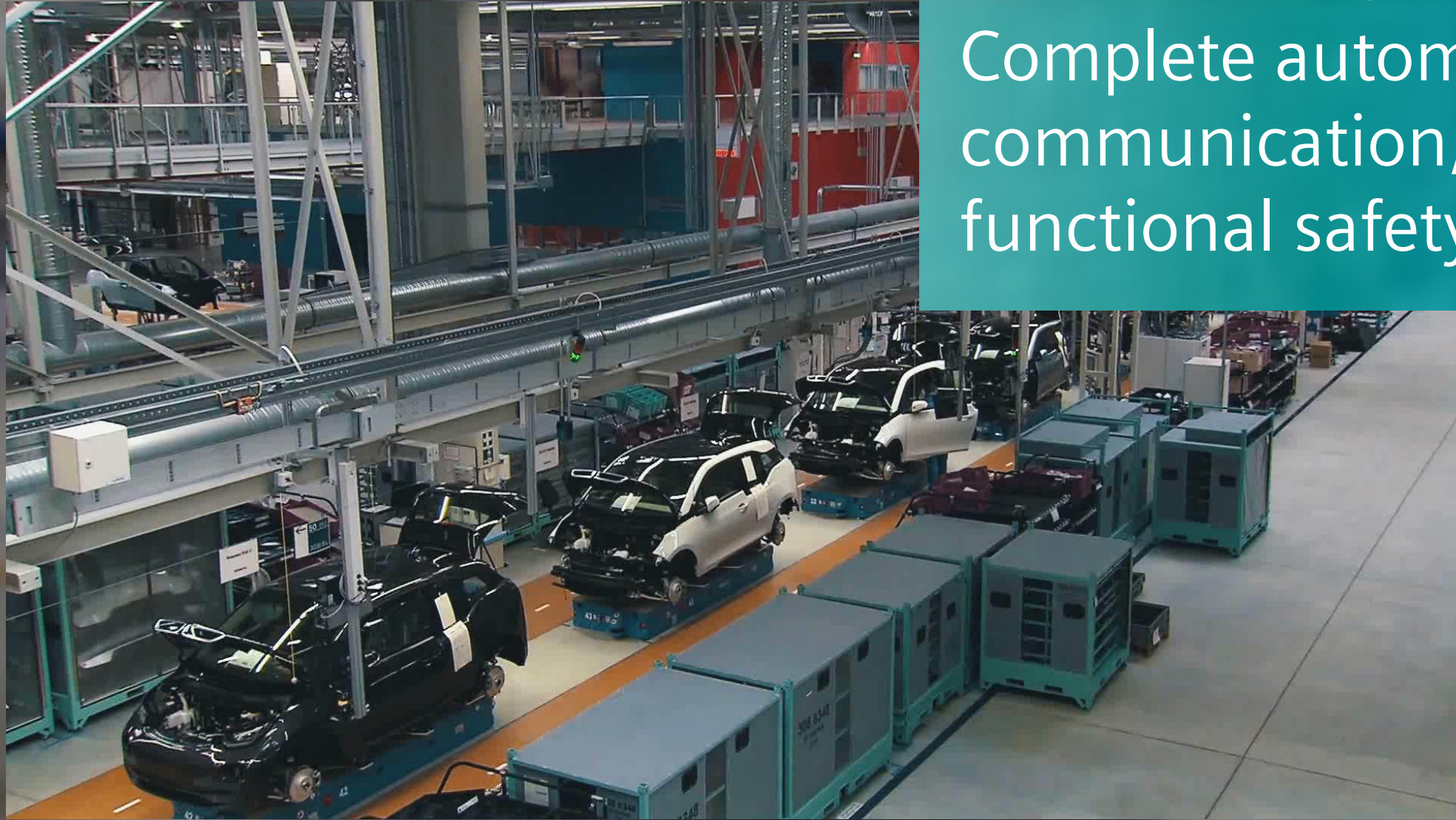


# Simulate production lines on throughput and collisions



Standardized and open system package

Complete automation,  
communication, and  
functional safety





## Simulation and flexible production concepts

**Faster  
validation and  
verification**

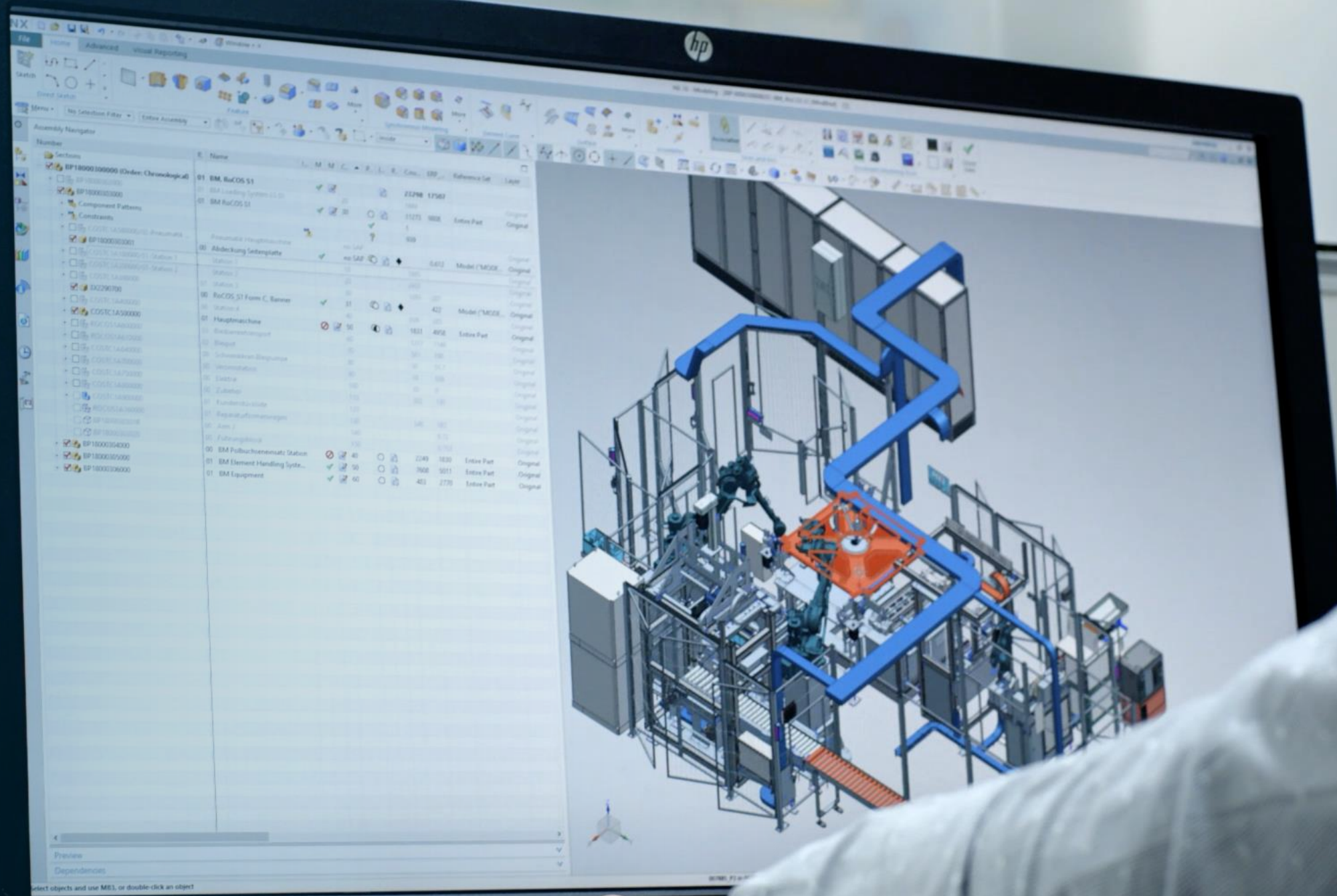
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**Economic  
manufacturing  
of different car  
models**

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**Easy scalability  
of production  
capacity**

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Assembly Navigator

Number	Name	QTY	UOM	Part Type	Status
01	BM_RuCOS S1	1		Entire Part	Original
02	BM Loading System L1.01	1		Entire Part	Original
03	BM_RuCOS S1	1		Entire Part	Original
04	Abdeckung Getriebeplatte	1		Model ("MCKE")	Original
05	Station 1	1		Original	Original
06	Station 2	1		Original	Original
07	Station 3	1		Original	Original
08	RuCOS S1 Form C, Sensor	1		Model ("MCKE")	Original
09	Station 4	1		Original	Original
10	Hauptmaschine	1		Entire Part	Original
11	Endarmmontage	1		Original	Original
12	Beleg	1		Original	Original
13	Schwenkarm-Steuerung	1		Original	Original
14	Arbeitsstation	1		Original	Original
15	Leuchte	1		Original	Original
16	Zubehor	1		Original	Original
17	Fundament-Blatte	1		Original	Original
18	Regelungsaufbauverriegelung	1		Original	Original
19	Arm 1	1		Original	Original
20	Fahrerplattform	1		Original	Original
21	BM Fullschwenkarm-Station	1		Entire Part	Original
22	BM Element Handling System	1		Entire Part	Original
23	BM Equipment	1		Entire Part	Original

Select objects and use MB1, or double-click an object





*For some 30 years, industry believed it had reached the physical limits when casting lead poles for classic lead-acid batteries*

**Siegfried Altmann**  
CEO Rosendahl Nextrom GmbH

Simulating and optimizing all machine processes with a digital twin







*We achieve a totally new level of output, quality, and performance. None of this would be possible without a digitalized and digitally controlled workflow in the factory."*

**Siegfried Altmann**

CEO Rosendahl Nextrom GmbH



From up to 24 months  
of developing time

down to  
**12**





## The digitalization effect

**50% shorter  
development  
time**

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**95% machine  
efficiency rate**

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**25% higher  
production  
output**

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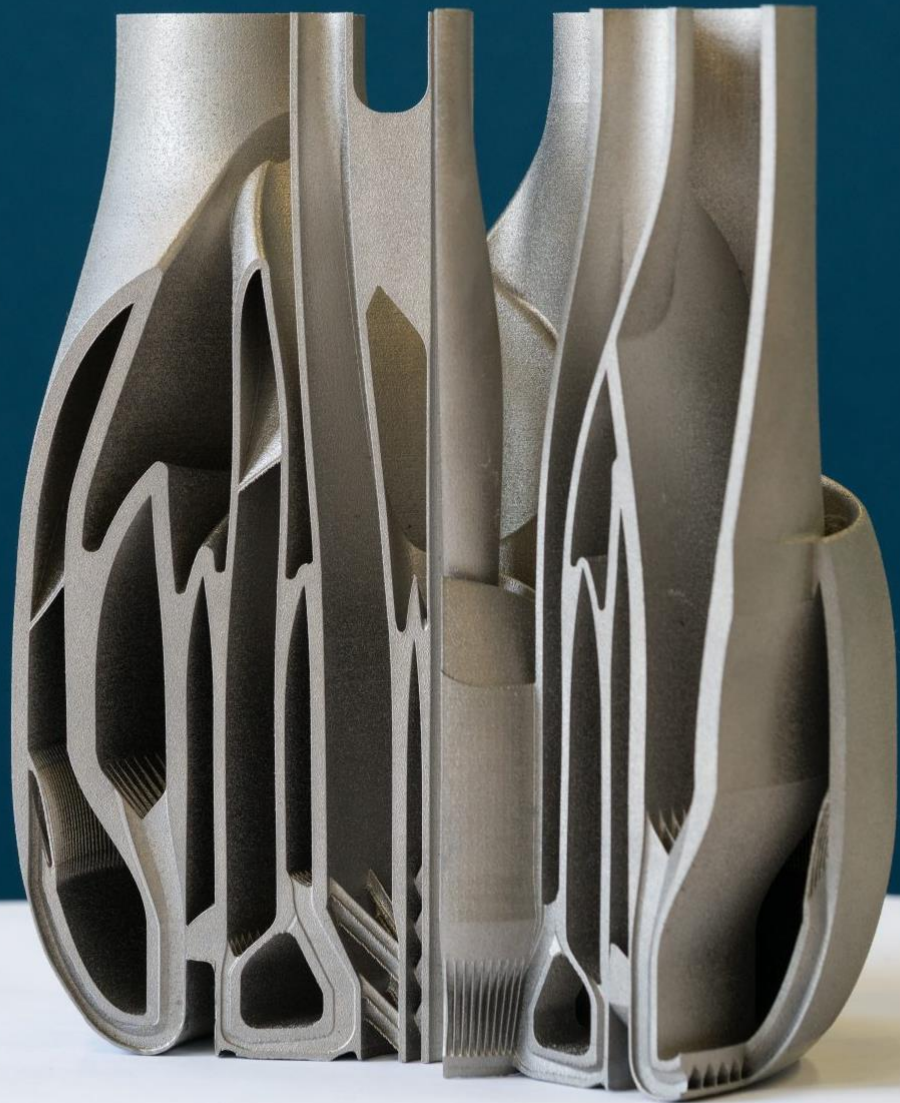




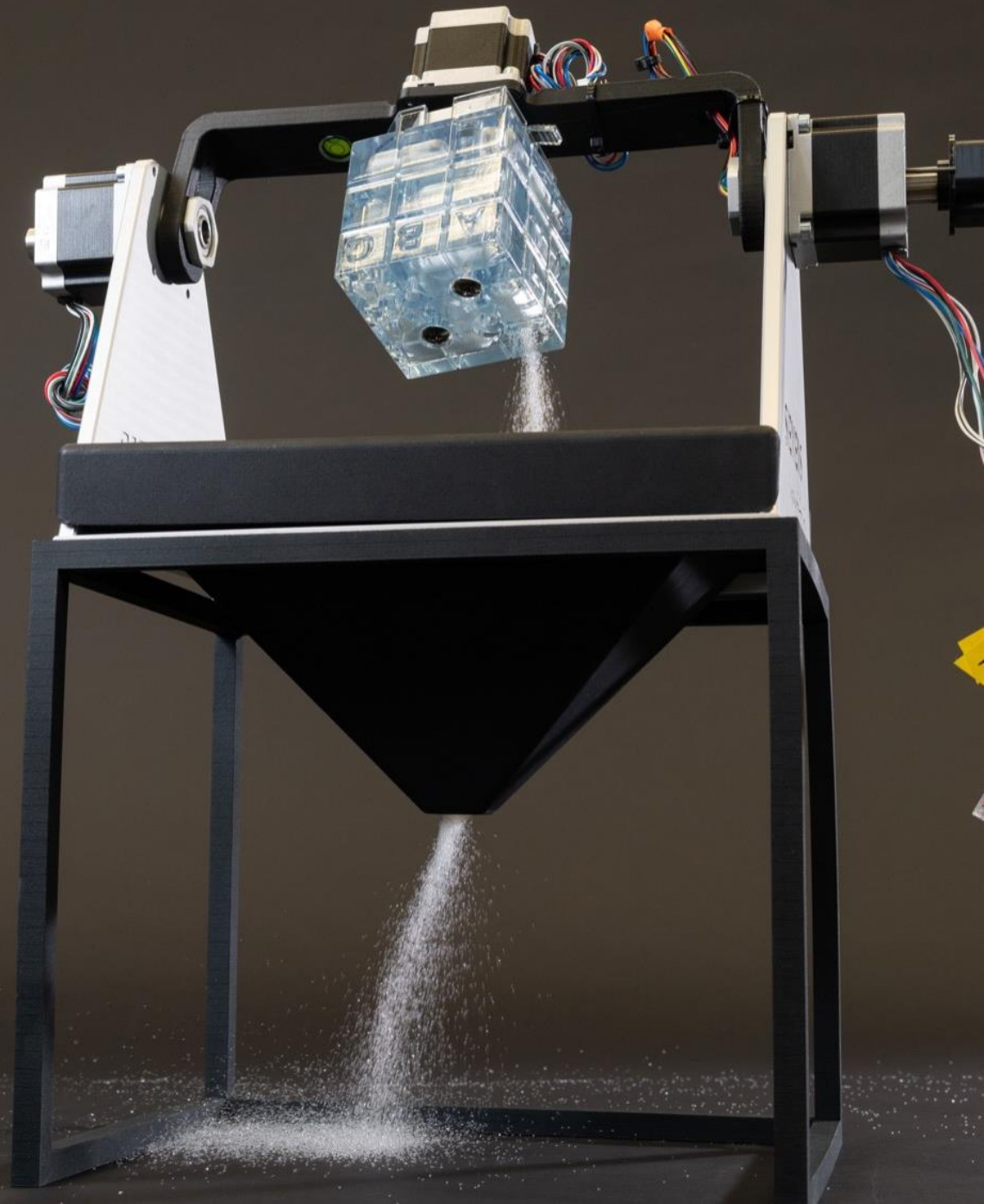
## Non-value-adding-time and waste of resources











Algorithm for  
a depowdering  
chamber

Fully automated  
removal of metal  
powder based on  
algorithms





## Automated depowdering

No harm for  
human workers

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Reusing metal  
powder

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Less environ-  
mental impact

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# Continuous optimization



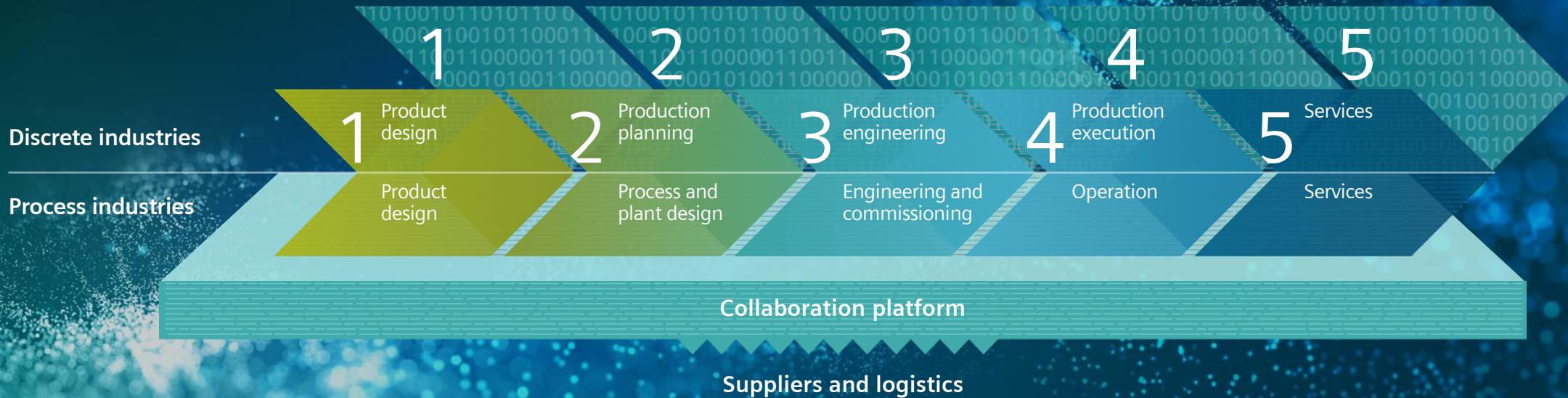
| What makes  
all this possible?



Embracing  
digitalization



# Integrating and digitalizing the entire value chain



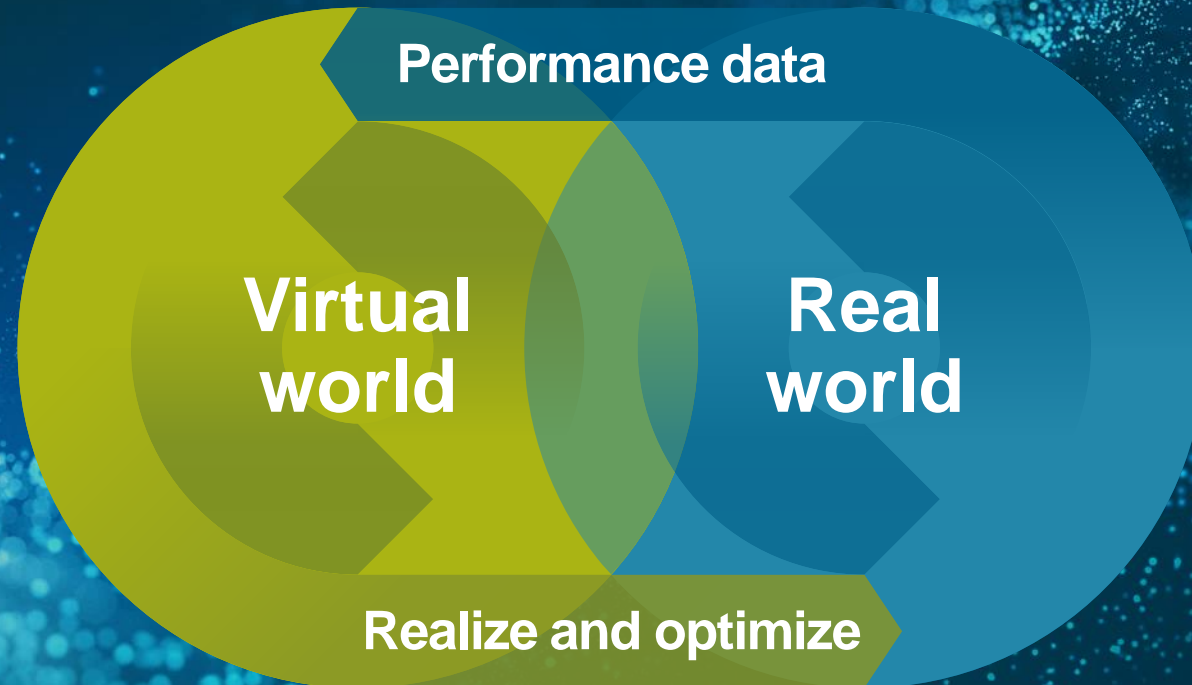
End-to-end solutions  
for all industries

Numerous starting  
possibilities

Brownfield or  
greenfield

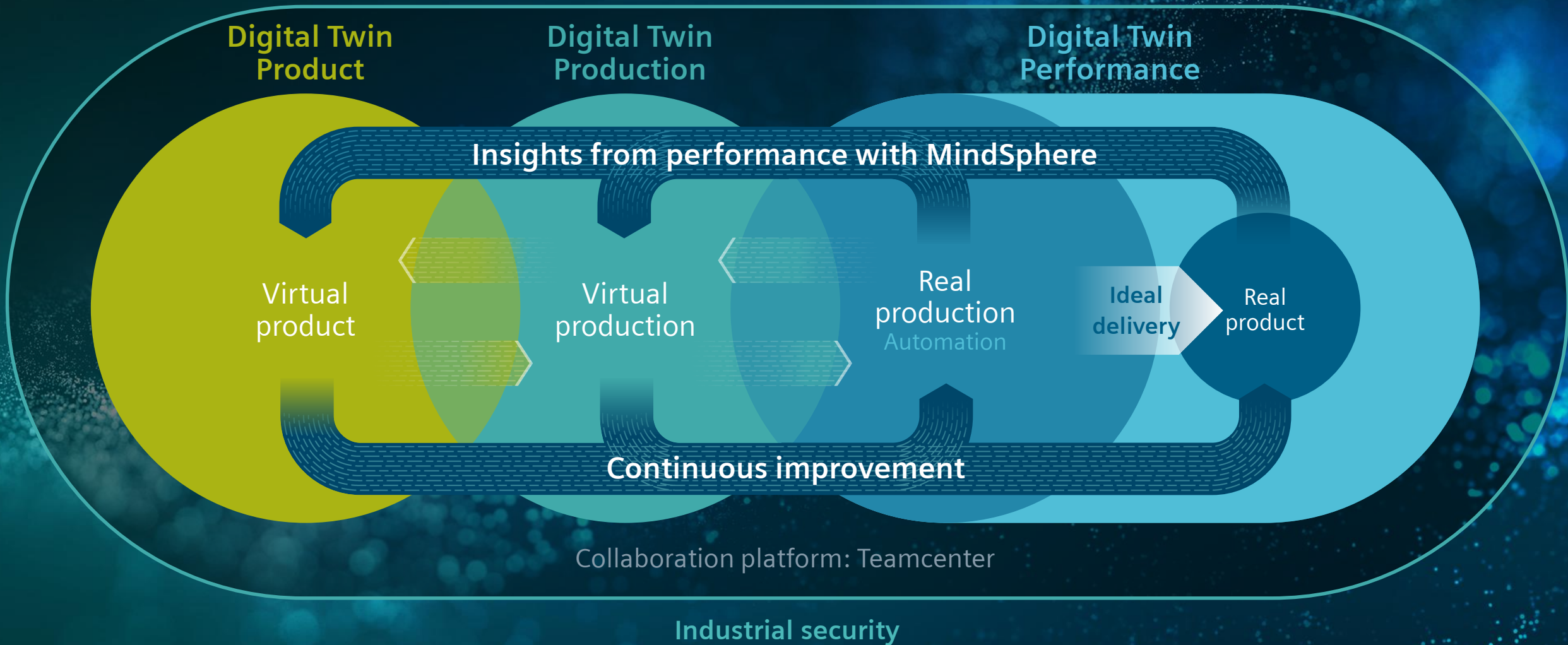
Standardized and  
open interfaces

# The basis for continuous optimization





# The basis for continuous optimization



The basis for continuous optimization

# Portfolio

Services for the Digital Enterprise

Consulting

Implementation

Optimization





# Continuous optimization

Thinking industry further!



Let's start your  
digital journey  
together!