



Electric motor plant
Bad Neustadt an der Saale
The showcase factory for
digitalization in metalworking

About us

Siemens electric motor plant in Bad Neustadt a. d. Saale

- 1 location with 2 production facilities:
Industriestrasse and Siemensstrasse
- 1,500 employees
- Up to 600,000 electric motors in over 30,000
versions annually

About us

In the market

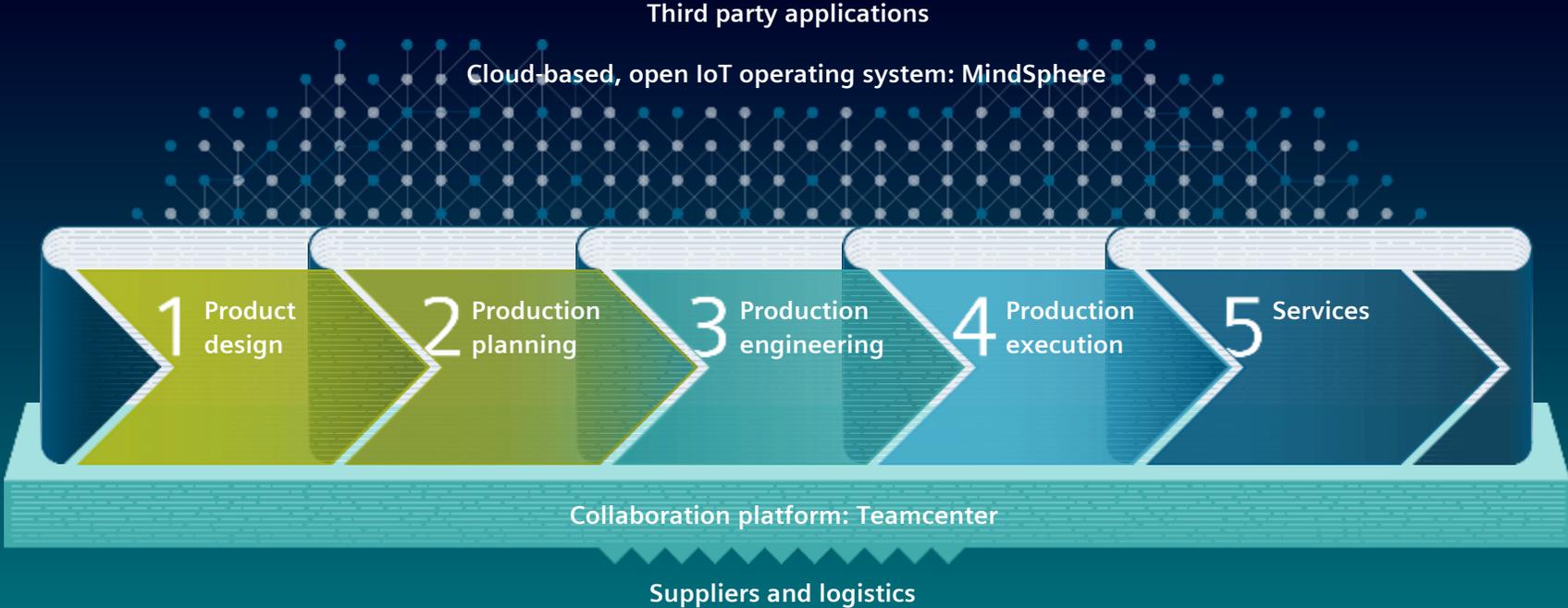
- Speed
- Flexibility
- Efficiency
- Quality

In production

- High degree of product diversity
- Different machines
- Different machine types
- Different machine generations

Our path

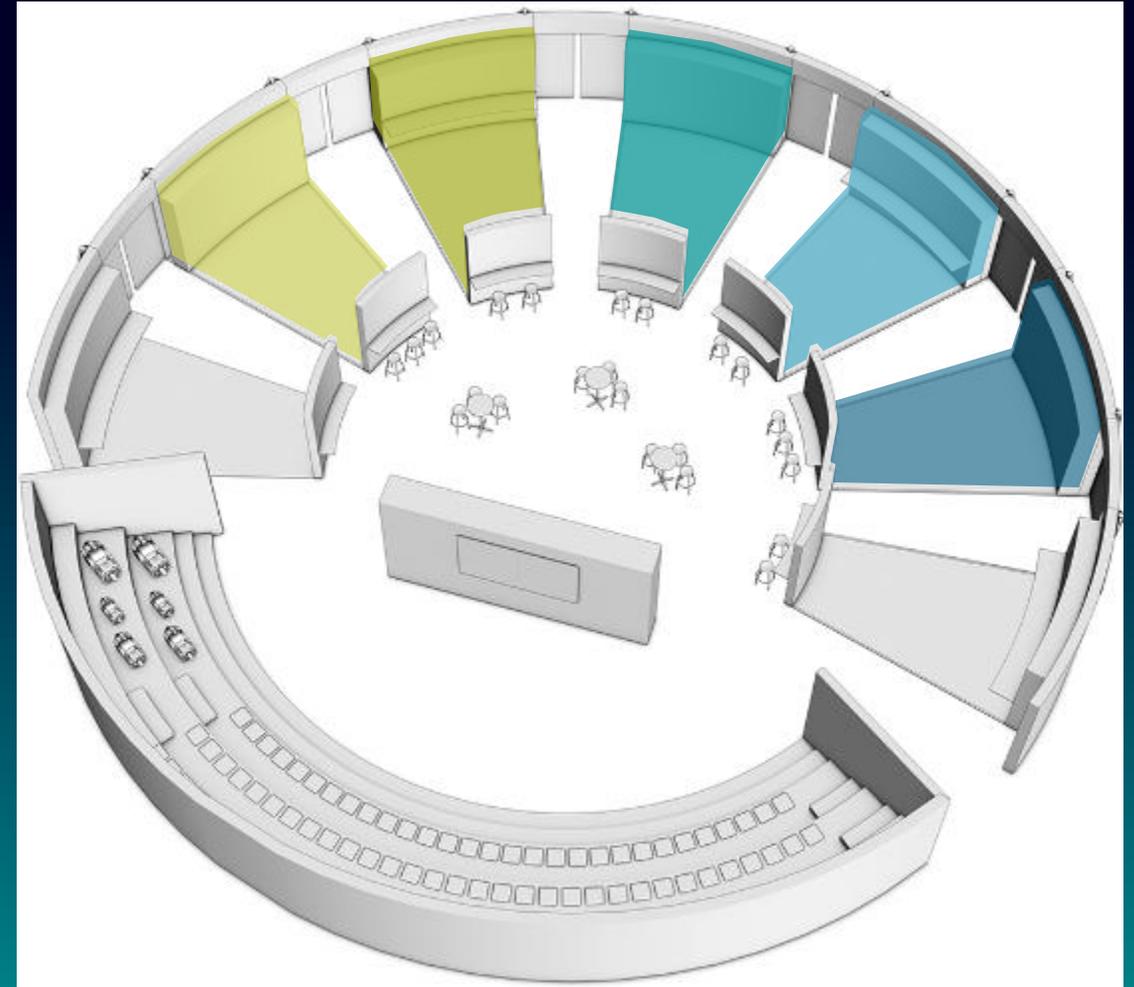
On the path to the LEAN Digital Factory



ARENA OF DIGITALIZATION

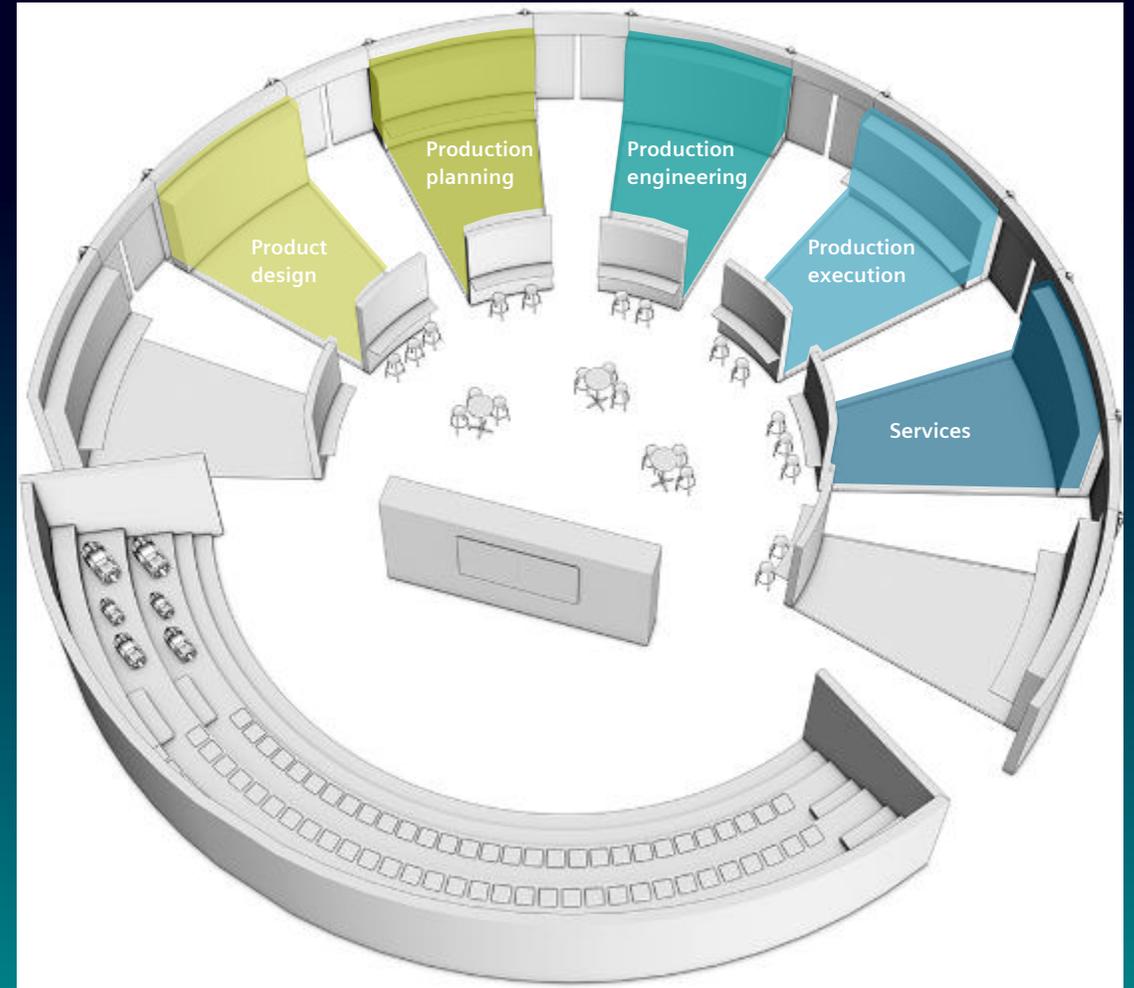
An interactive showroom that proves that the Siemens Digital Factory approach works

- Making digitalization come alive
- Based on the example of an end shield and motor
- For machine users and builders, partners and employees



ARENA OF DIGITALIZATION - Our software tools

- **Product design**
NX CAD, Teamcenter Product Cost Management
- **Production planning**
NX Mold Design, Process Simulate, Plant Simulation
- **Production engineering**
NX CAM, Virtual Machine, VNCK-Simulation, CMM Inspection Programming, NX Robotics, Process Simulate
- **Production execution**
Manage MyTools, Manage MyPrograms, Shopfloor Integrate Resource Management, Analyze MyPerformance, Manage MyMachines, Visual Explorer Tableau, Analyze MyPerformance /OEE
- **Services**
Analyze MyCondition, Analyze MyWorkpiece /Toolpath, Visual Analyzer, Fleet Manager
- **Maschine builder perspective**
Mechatronics Concept Designer, SIMATIC Machine Monitor, Fleet Manager, Visual Flow Creator
- **Overall**
Teamcenter, MindSpere

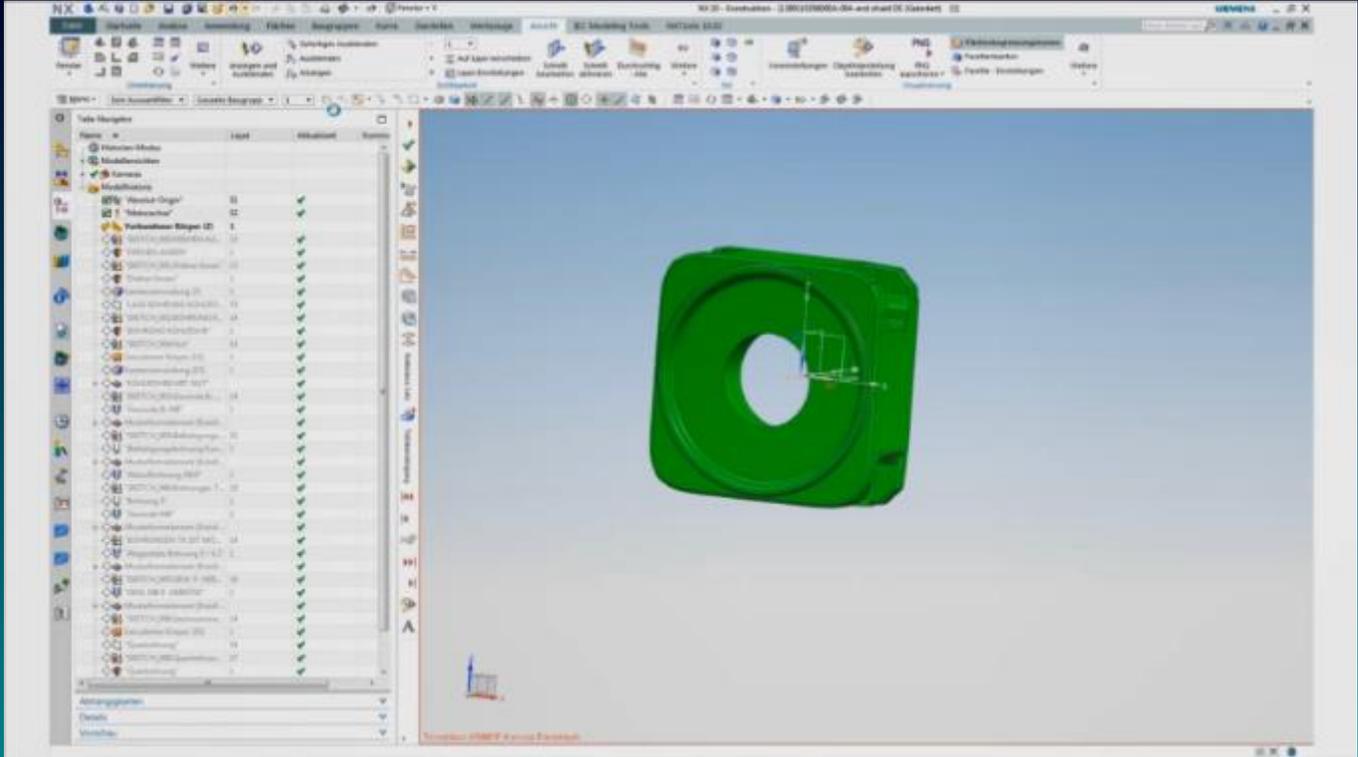


ARENA OF DIGITALIZATION



PRODUCT DESIGN theme area

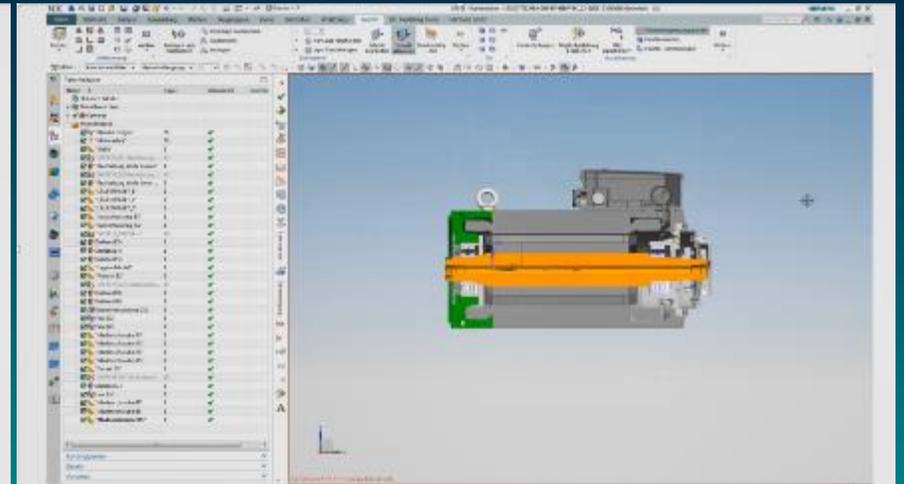
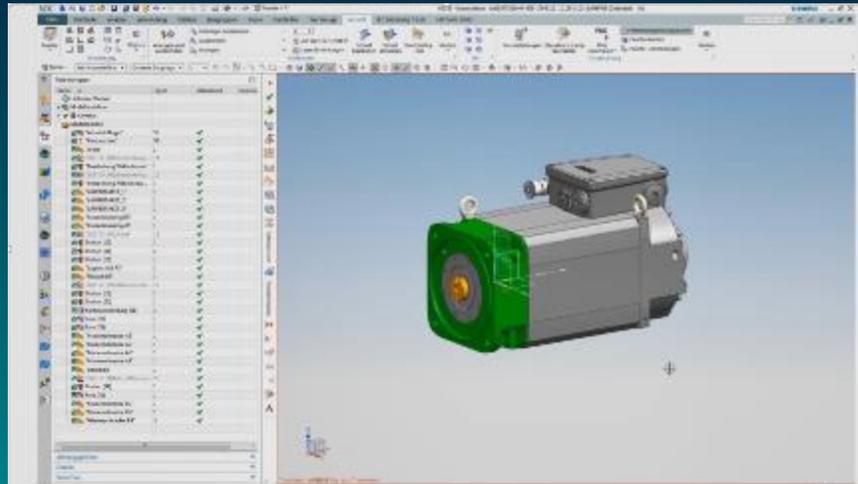
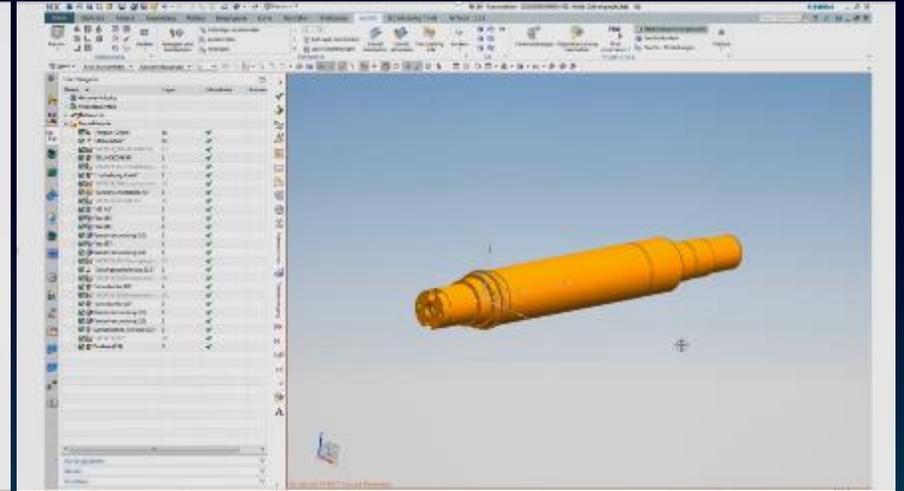
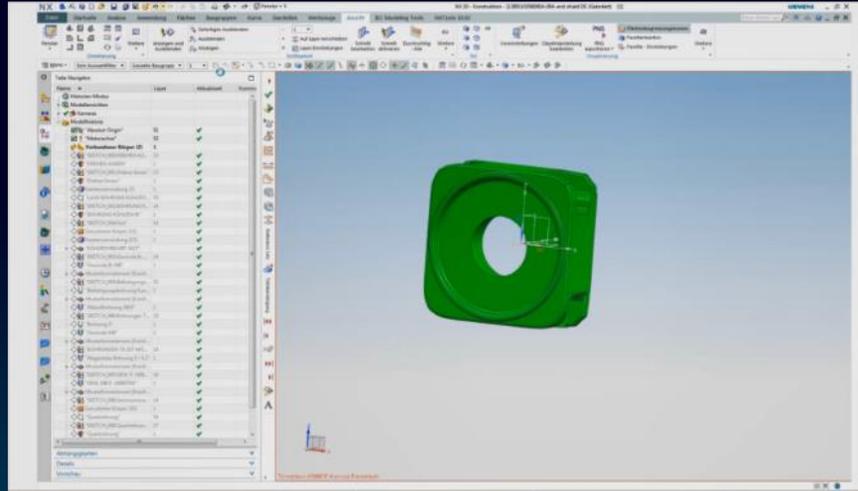
Create the digital twin of the product



PRODUCT DESIGN theme area

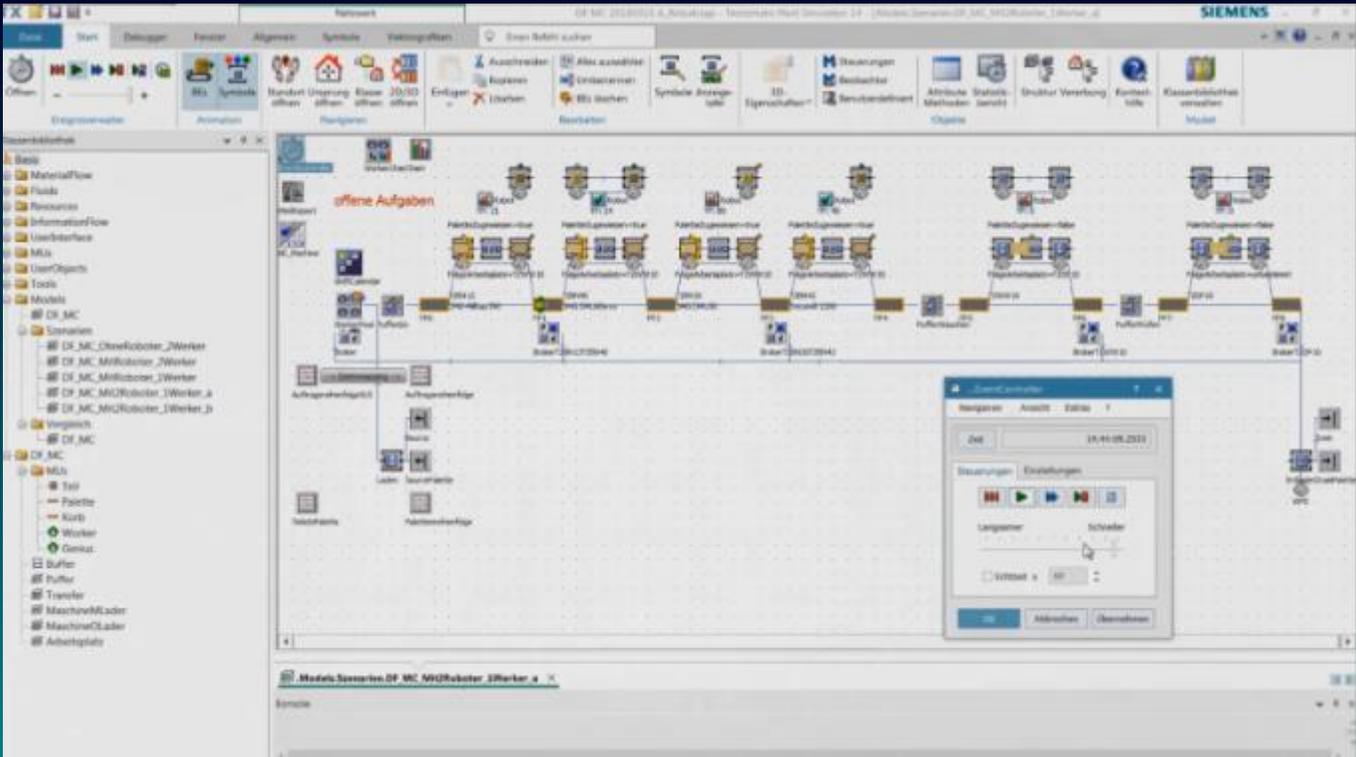
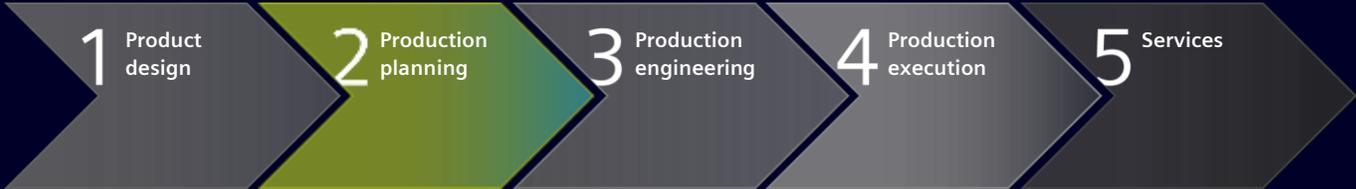
Create the digital twin of the product

- Design in NX
- Storage in Teamcenter
- Available for all subsequent processes
- Optimized for the task
- Basis for production planning



PRODUCTION PLANNING theme area

Prepare the digital twin of the production



PRODUCTION PLANNING theme area

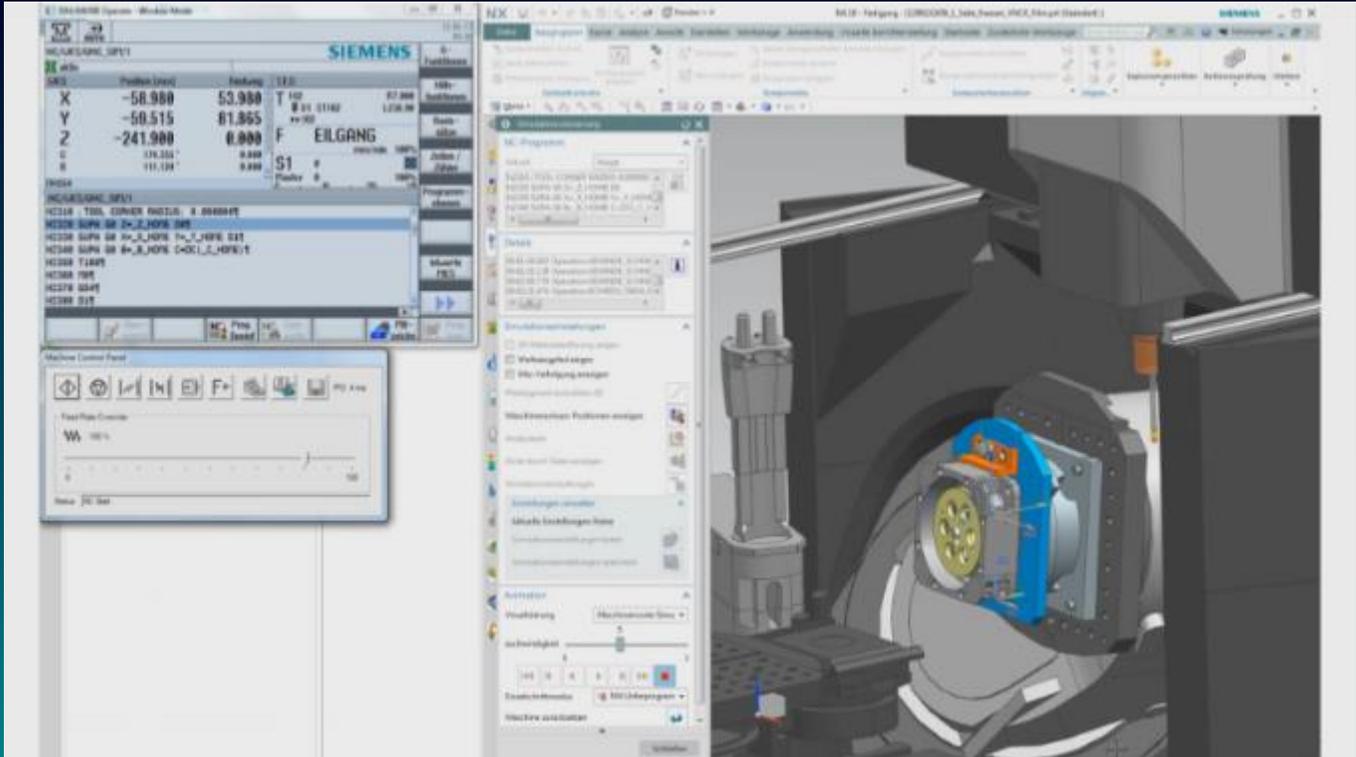
Prepare the digital twin of the production

- Simulation of plant and workpiece flow
- Evaluation of versions
- Evaluation of capacities and work planning



PRODUCTION ENGINEERING theme area

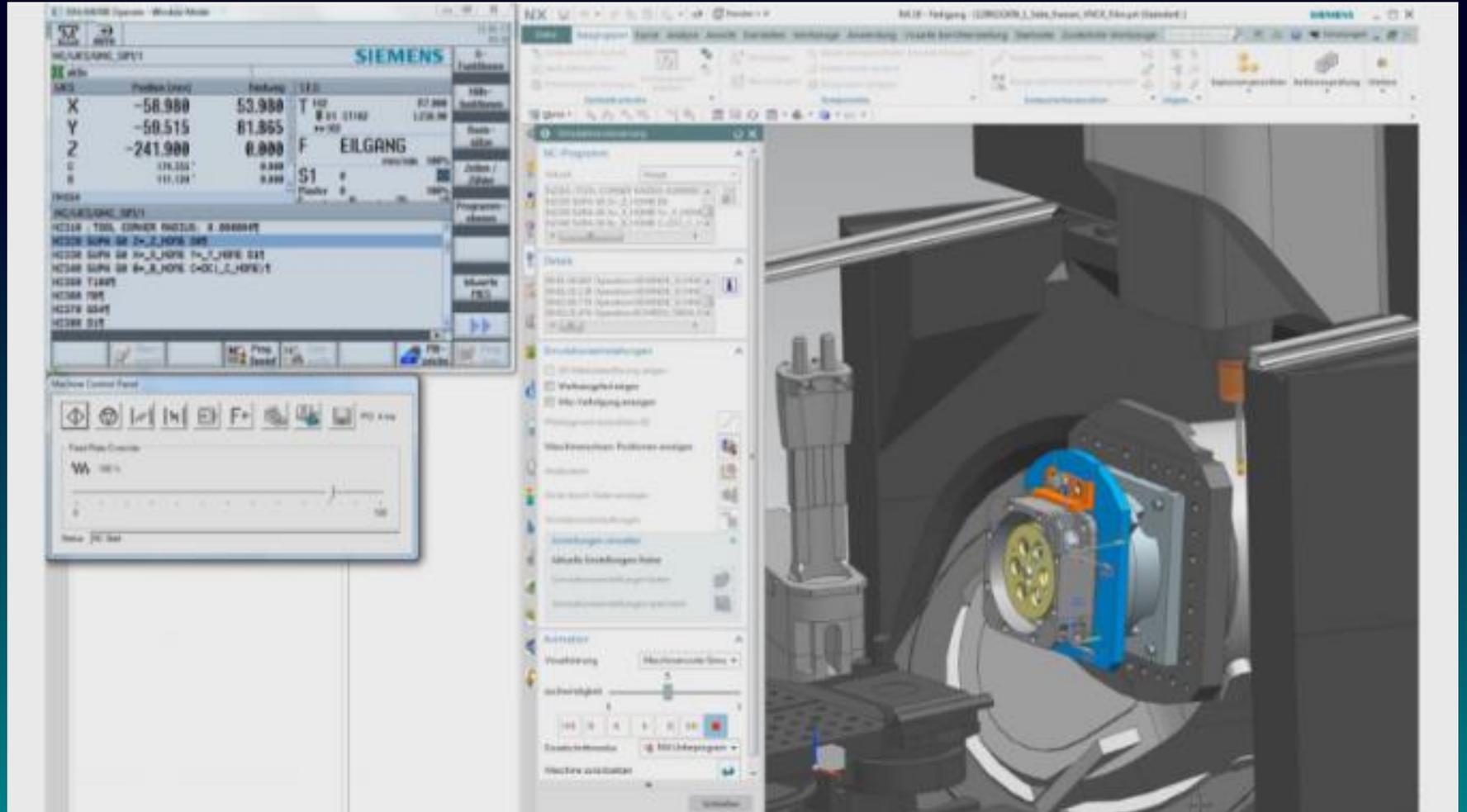
Complete the digital twin of the production



PRODUCTION ENGINEERING theme area

Complete the digital twin of the production

- Simulate processes
- Generate NC programs
- Provide production-related information



PRODUCTION EXECUTION theme area

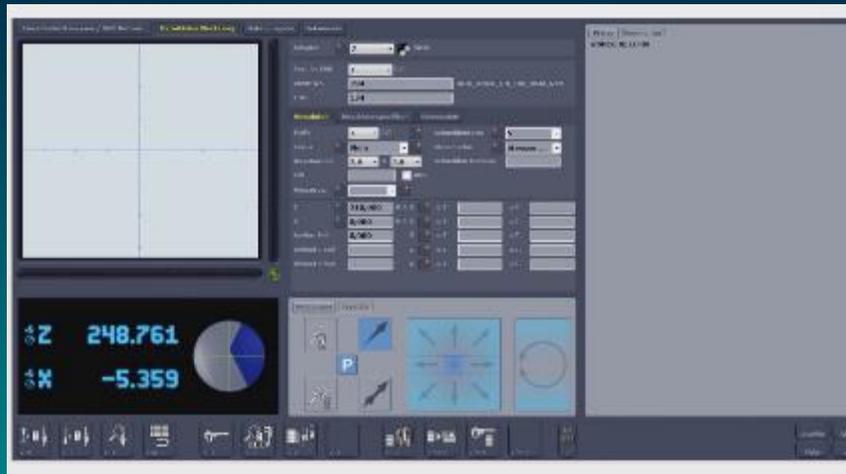
Create the digital twin of the performance



PRODUCTION EXECUTION theme area

Create the digital twin of the performance

- Machine setup and run-in
- Load NC programs
- Perform machining
- Series-accompanying quality assurance



SERVICES theme area

Protect and increase productivity

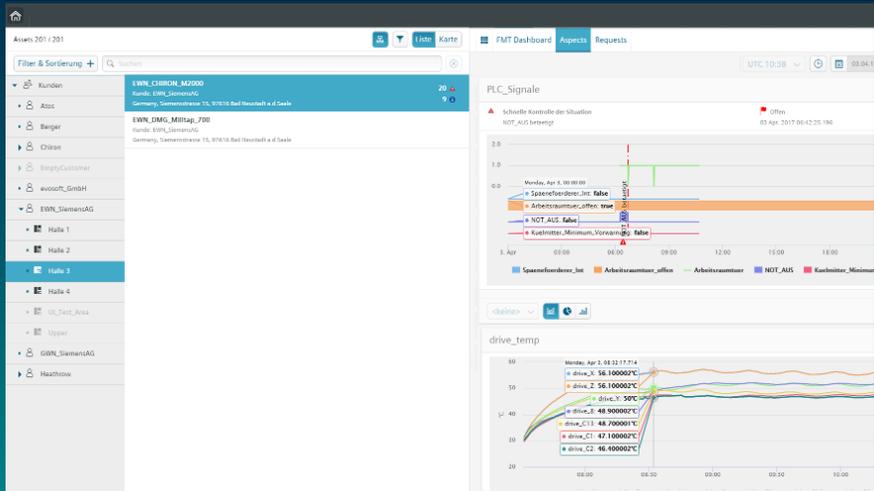
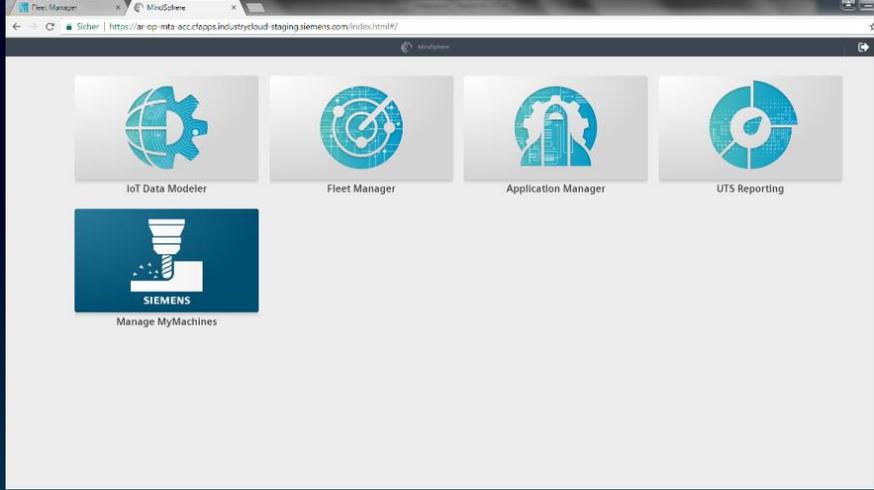
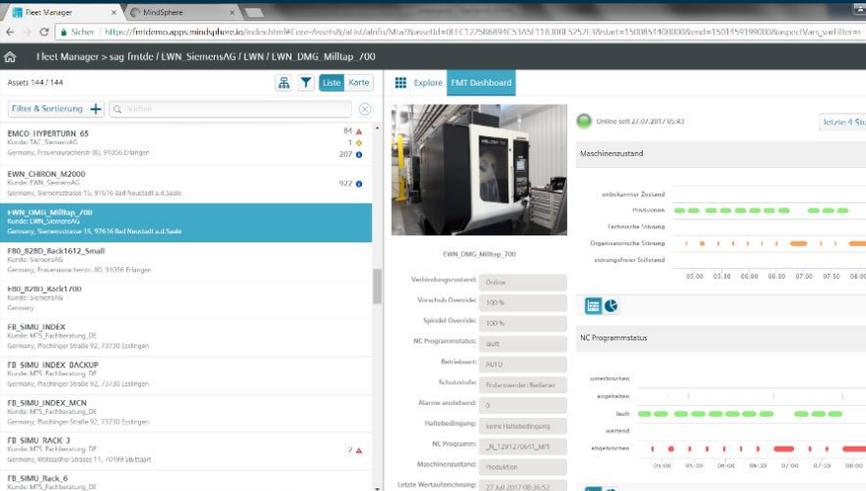


SERVICES theme area

Protect and increase productivity

Manage MyMachines for MindSphere

- Worldwide access to machine data
- Record machine status
- Record and evaluate production data
- Reduce inspection and maintenance costs

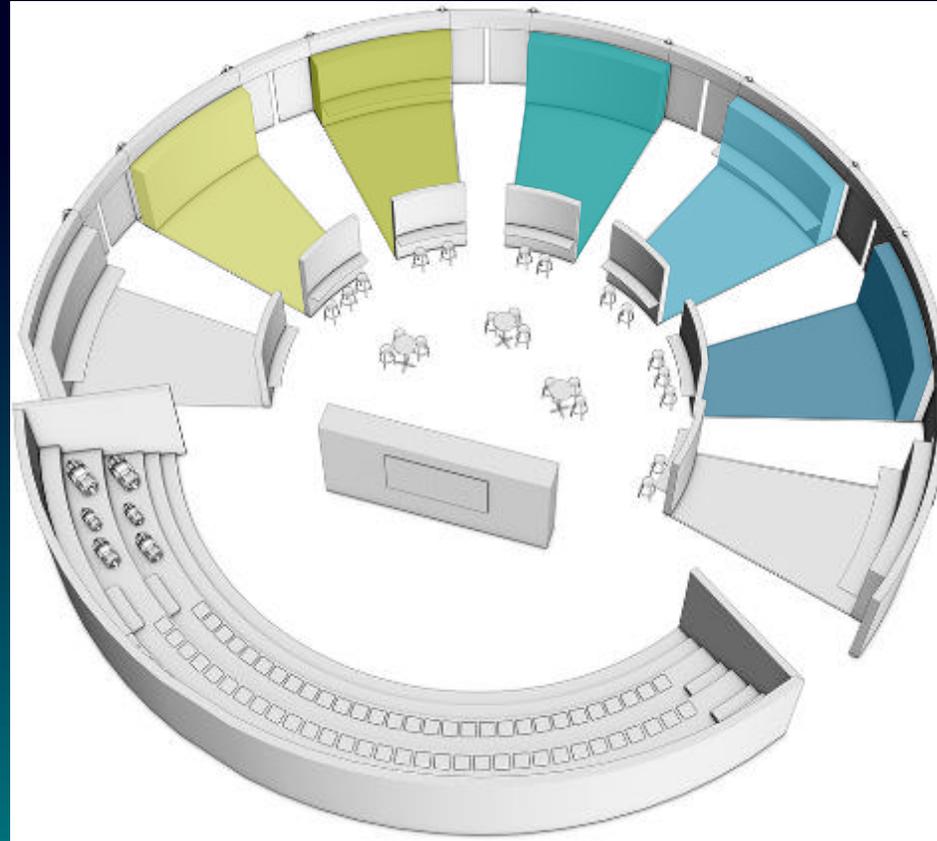


ARENA OF DIGITALIZATION

Other theme areas

DIGITALIZATION CHANGES THE WAY WE WORK

Inspire employees.
Integrate partners.
Measure impact.



MACHINE BUILDER PERSPECTIVE

Develop concepts.
Build machines.
Offer services.

SHOPFLOOR

Experience digitalization firsthand



SHOPFLOOR

Experience digitalization firsthand

In pre-fabrication

- Overview of completed parts
- Digital integration of a 35-year-old lathe (GU1000 with SINUMERIK S3 and SIMATIC S7-1511)
- Digital program and tool management (DMU50 with Manage MyPrograms and Manage MyTools)
- Spindle data analysis (EMCO EM1200 with Smart Spindle)
- Production optimization at the tool setting station (SFIRM links Teamcenter and Manage MyTools)
- Digital transparency in production with Analyze MyPerformance
- Additive manufacturing with SINUMERIK (GEFERTEC 5-axis 3D metal printing machine)
- Robot integration (GE42 with Run MyRobot/ Handling and FZ12 with Run MyRobot/ Direct Control)
- NC data analysis (Grob 550 with SINUMERIK Edge)
- Adaptive Control & Monitoring
- View order information directly on the machine (FZ12)



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