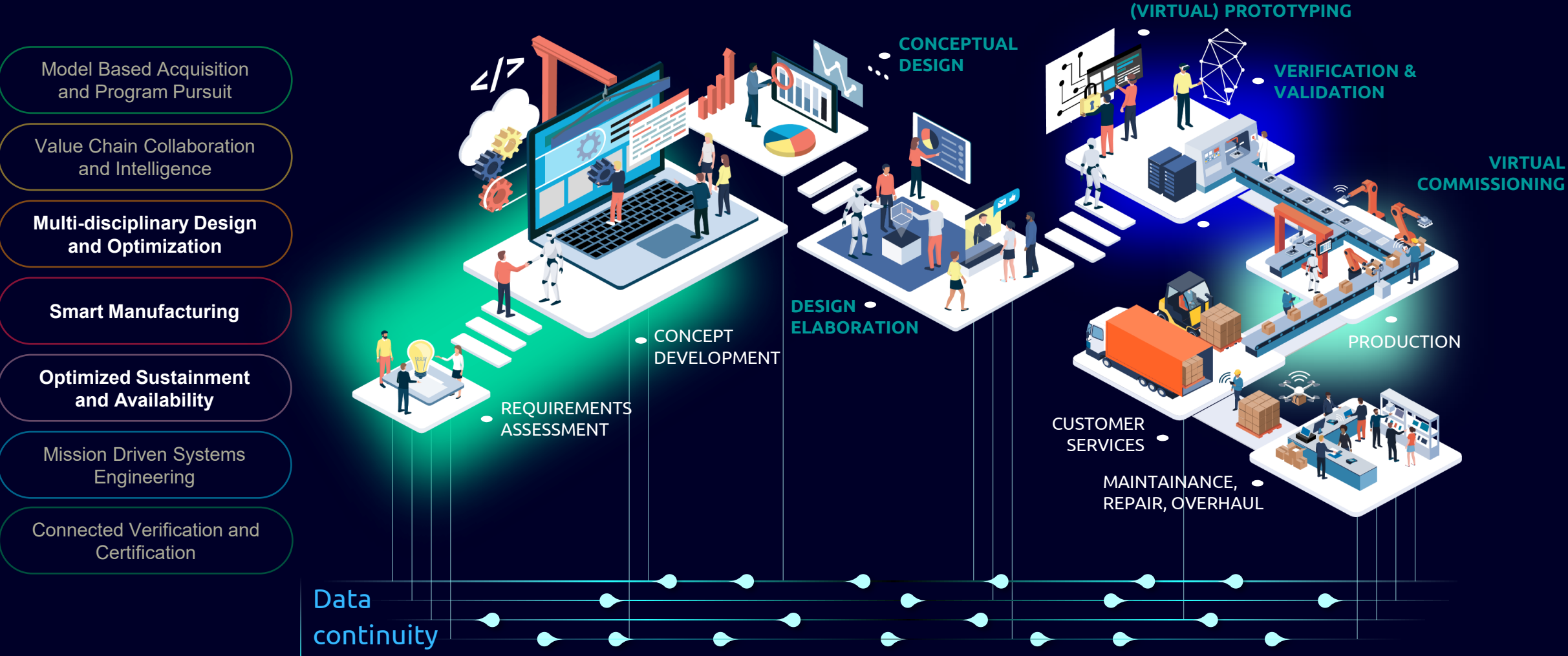


E2E framework for *Engineering and Validation* of Production Lines

Use-Case: Battery Package Assembly Line

Capgemini x Siemens | July 2026

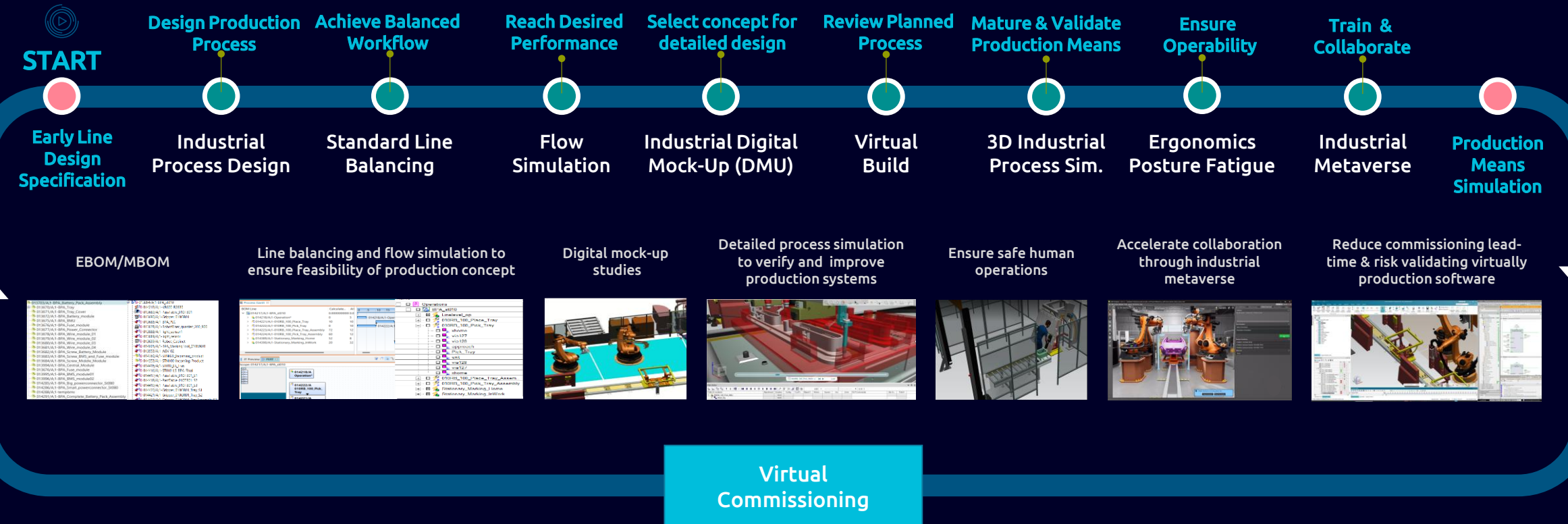
Leverage Simulation Technologies to Enable Virtual Before Physical, Achieving Your Time-to-Market at Reduced Cost



Accelerate the Time-to-Market Through Holistic Simulation Powered by Siemens Technologies

DESIGN

DETAIL



VALIDATE

DEVELOP

Production Line Concept Overview



CONCEPT DESIGNED FOR INTEGRATION

Design High-Performing Concepts for Production Through Simulation

DESIGN

DETAIL

DEVELOP

VALIDATE



DESIGN AND
ONBOARD DATA



MANAGE
EBOM,MBOM,BOE



PROCESS PLAN
AUTHORING



VALIDATE
PROCESS PLAN

- Empower teams with immersive tools to streamline workflows and foster collaboration
- Centralized and traceable data management for faster decision-making.
- Leverage simulation to optimize performance and reduce bottlenecks.
- Achieve production throughput to ensure feasibility and scalability

Immersive Engineering Empowers Collaboration to Reduce Lead-Time & Costs

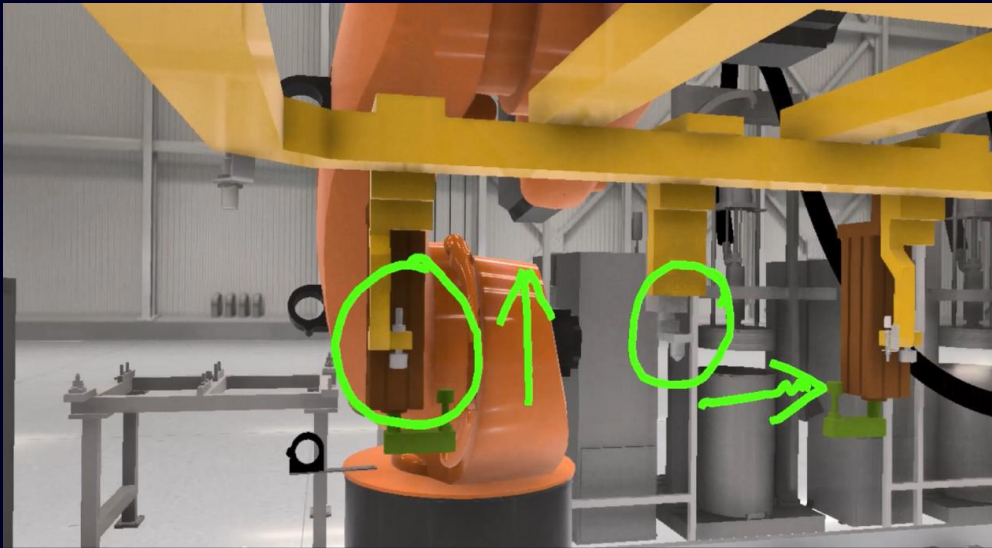
DESIGN

DETAIL

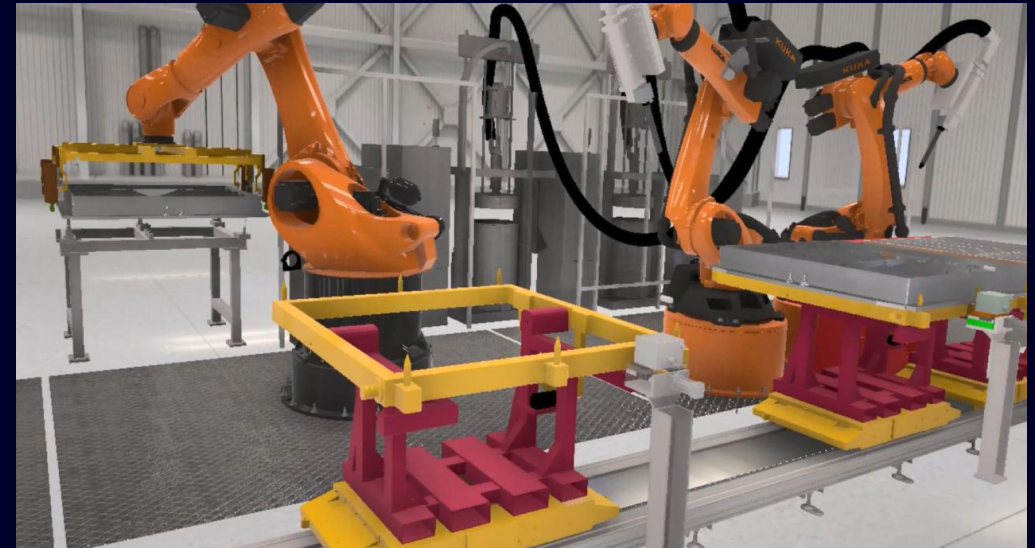
DEVELOP

VALIDATE

- Facilitate cross-functional verification through immersive engineering
- Reactive to proactive problem solving



Identify issues and provide suggestions

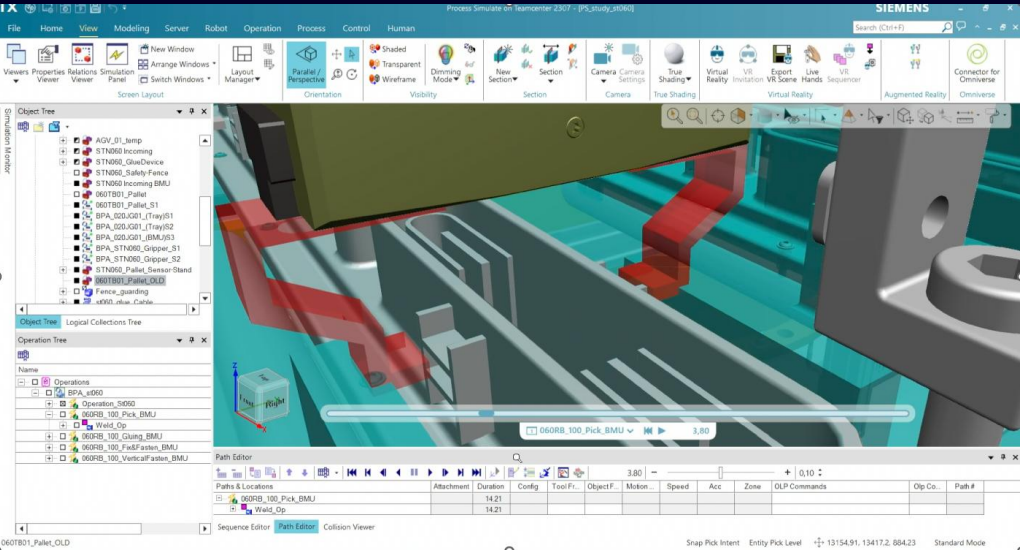


Virtually verify design changes

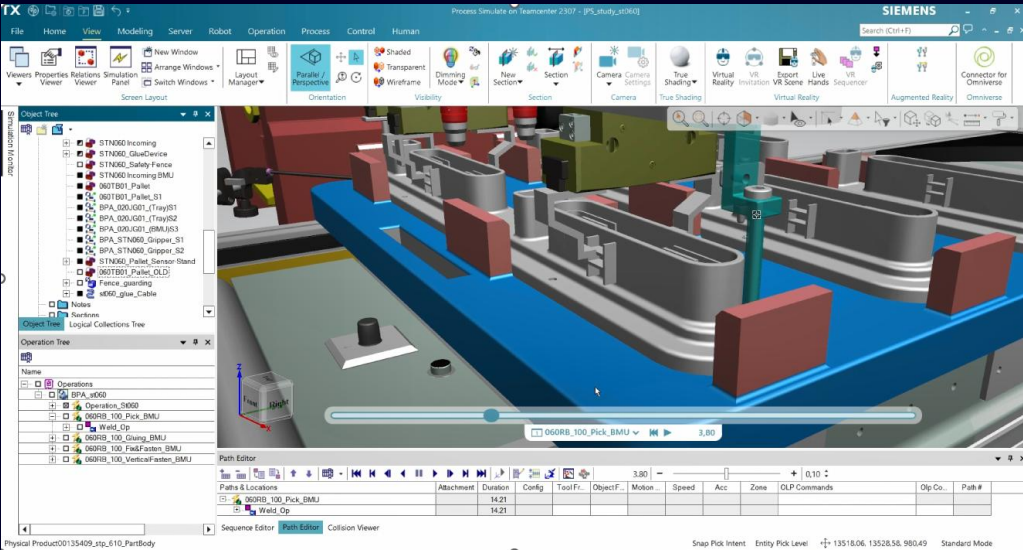
Detect & Mitigate Risks Through Simulation During Detailed Engineering



Virtually challenge the process and design to secure CAPEX before major investments are committed



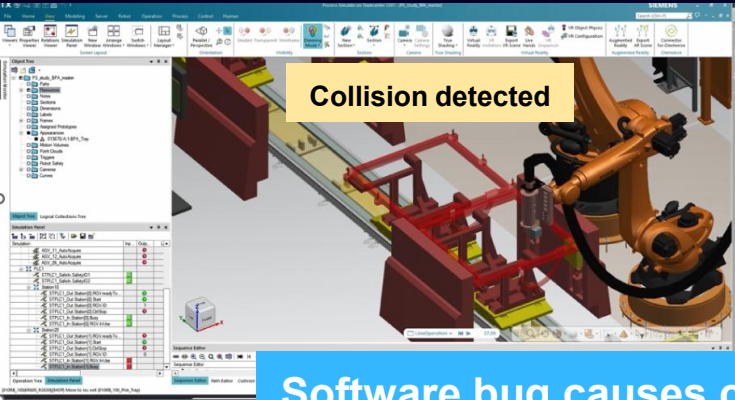
Identify virtually issues in the process & design



Fix & validate issues before critical milestones

Develop Production Software: Identify and Solve Software Issues

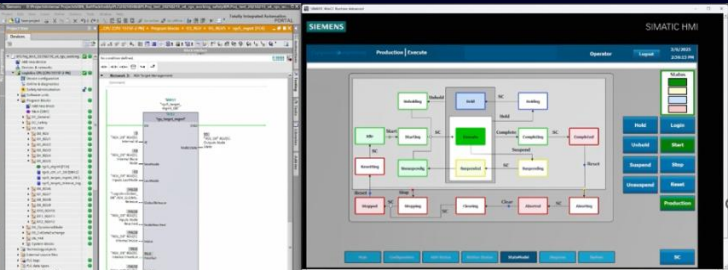
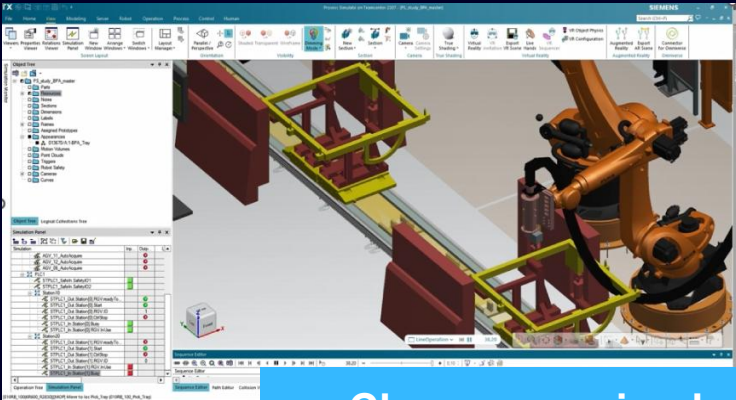
Develop, verify, and validate virtually PLC-Software Functions & Blocks/Modules throughout development



Identify & fix bug



Software bug causes collision of transfer jig



Changes are implemented & validated

Validate Production Software: Derisk Integration With Virtual Commissioning

DESIGN

DETAIL

DEVELOP

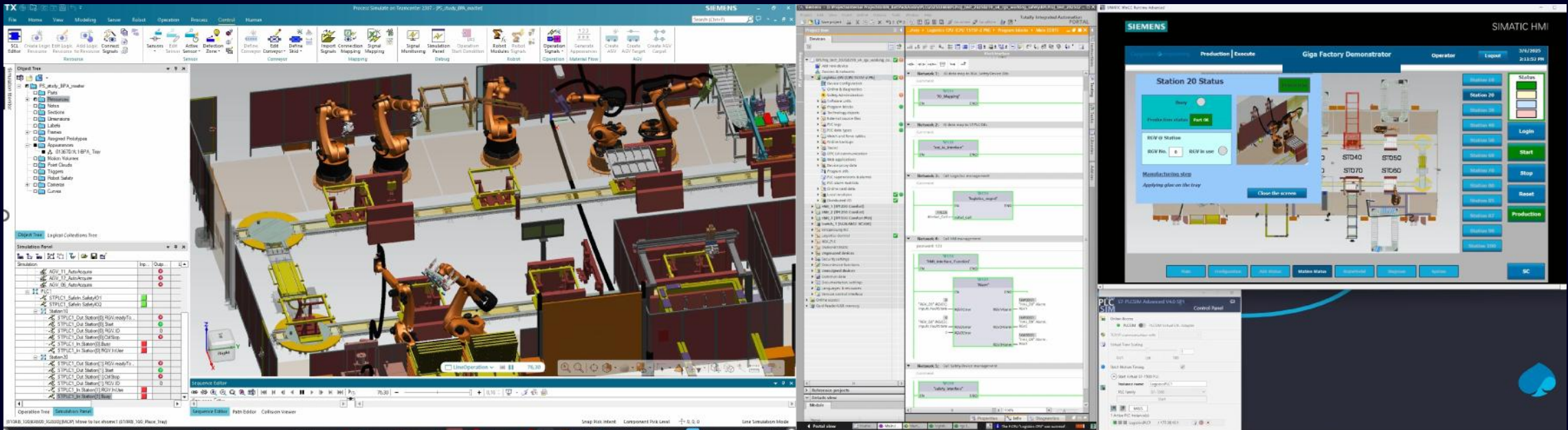
VALIDATE

- Secure virtually the integration of the production system by fully validating the final software version

Validation of transfer system incl. all jigs

Final PLC program

Final HMI program



About Capgemini

Capgemini is a global business and technology transformation partner, helping organizations to accelerate their dual transition to a digital and sustainable world, while creating tangible impact for enterprises and society. It is a responsible and diverse group of 340,000 team members in more than 50 countries. With its strong over 55-year heritage, Capgemini is trusted by its clients to unlock the value of technology to address the entire breadth of their business needs. It delivers end-to-end services and solutions leveraging strengths from strategy and design to engineering, all fueled by its market leading capabilities in AI, cloud and data, combined with its deep industry expertise and partner ecosystem. The Group reported 2023 global revenues of €22.5 billion.

Get the future you want | www.capgemini.com



This presentation contains information that may be privileged or confidential and is the property of the Capgemini Group.

Copyright © 2025 Capgemini. All rights reserved.