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FACTORY TWIN AS A SERVICE – YOUR
SHORTCUT TO VALUE





3DEXPERIENCE

Manufacturers are leading
the digital revolution



Manufacturing Challenges

OPERATIONAL EFFICIENCY



Implement lean manufacturing



Increase productivity rate



Optimize human / robot collaboration

COMPLIANCE & RISK MANAGEMENT



Adopt real time monitoring



Comply to market needs and regulations

QUALITY



Enable inventory tracking

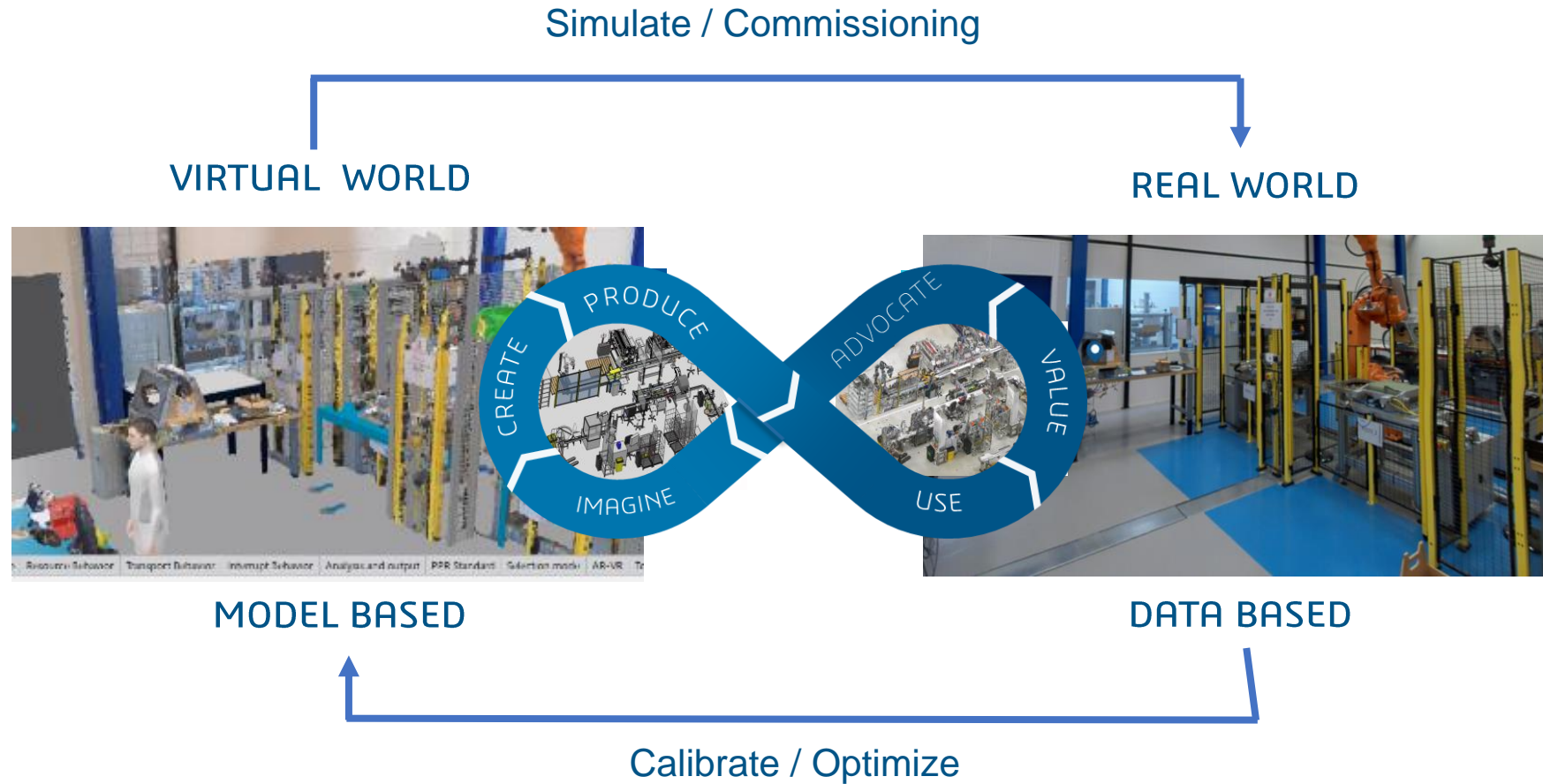


Ensure asset traceability



Enhance Engineering

VIRTUAL TWINS ENABLE VALUE CREATION IN PRODUCTION



OPERATIONAL
EFFICIENCY

COMPLIANCE & RISK
MANAGEMENT

QUALITY

VIRTUAL TWIN REQUIRES...



**Specific Skills,
Advanced Technology,
Time & Costs,
Years of Experience,
Extended Engineering Department**

YOUR SHORTCUT TO VALUE

CREATE ~~AN INITIATIVE TO DEVELOP A NEW TECHNOLOGICAL INNOVATION, SPEND MONTHS TO BUILD A TEAM AND TRAIN ON THE NEEDED SKILLS, SPEND WEEKS TO ACQUIRE AND DEPLOY THE NEEDED TECHNOLOGY, TAKE A YEAR TO PULL IT ALL TOGETHER TO OPERATE AND INDUSTRIALIZE THE NEW CAPABILITY, AND THEN START TO PRODUCE THE~~ **VALUE**

VIRTUAL TWIN AS A SERVICE

UNIV+RSE of Experiences

Infrastructure as a Service

enabling Unified Cyber Governance



Dedicated Cloud
Confined Collaboration

Sovereign Cloud
Trusted Collaboration

International Cloud
Secured Collaboration

Platform as a Service

connect people, ideas and data



3DEXPERIENCE®

Software as a Service

Industry Solution Experiences



Industry Process Experiences

Roles & apps



Experience as a Service

Virtual Twin as a Service

Experience as a Service

Business Experiences

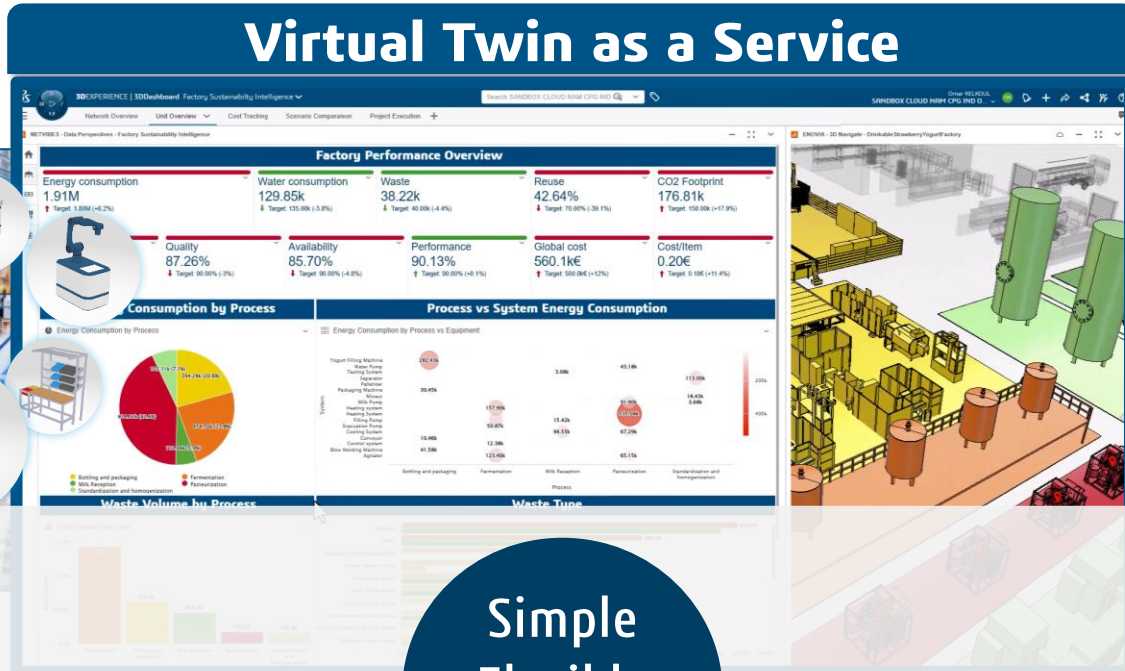
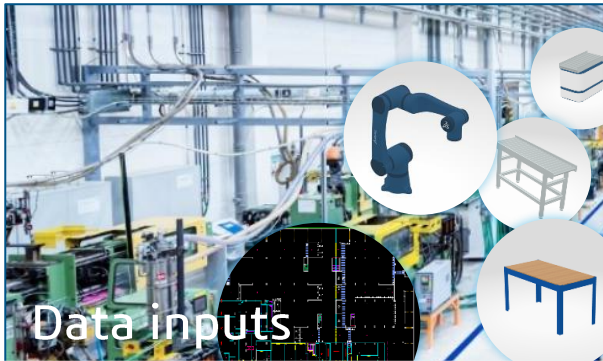
MyExperiences

Learning Experiences



SUBSCRIBE TO A DIGITAL SERVICE PROVIDING TO ANSWER YOUR BUSINESS NEEDS WITH DATA BASED INSIGHTS FROM EXPERIENCES RUNNING ON YOUR VIRTUAL TWIN MAINTAINED FIT FOR USE

Virtual Twin as a Service



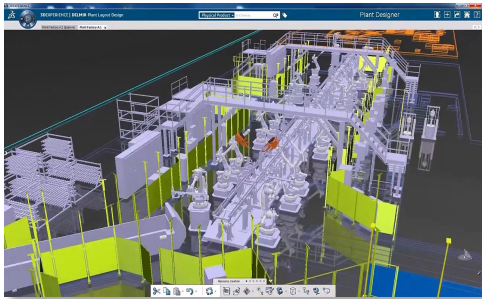
3D Knowledge & Know-how

Simple Flexible Scalable

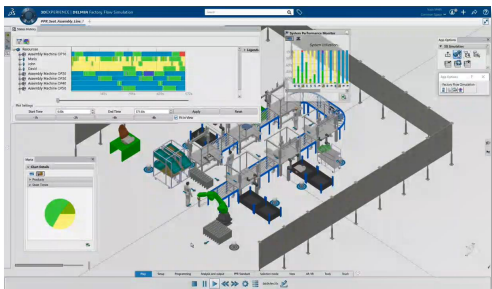
Online Collaboration Platform

ADDRESS MANUFACTURING CHALLENGES

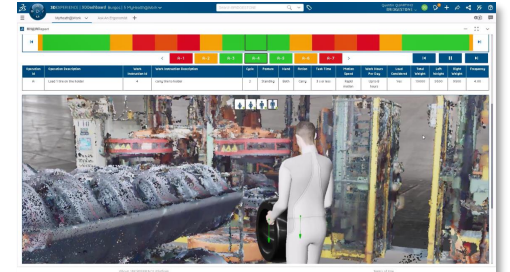
1 Plant Layout scenarios



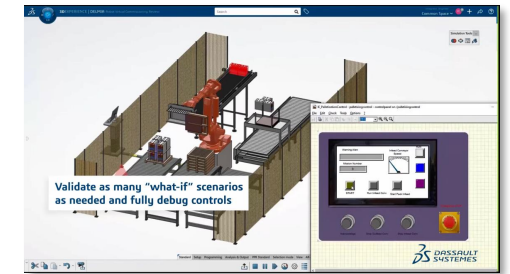
2 Line Flow Optimization



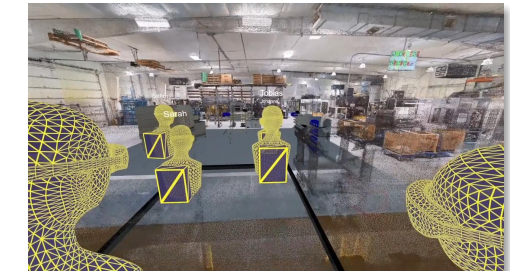
4 Safety



3 Virtual Commissioning



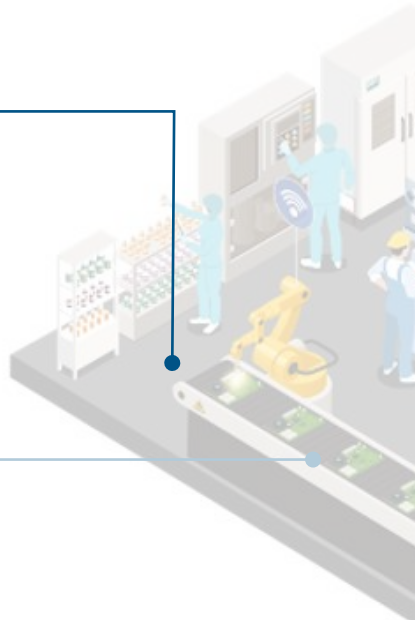
5 Immersive Experience



PLANT LAYOUT EXPERIENCE

1 Plant Layout

2 Flow Optimization

A screenshot of the 3DEXPERIENCE software interface. The window title is "3DEXPERIENCE | DELMIA Plant Layout Design". The main view shows a 3D simulation of a factory layout with various machines, conveyor belts, and safety barriers. The interface includes a top menu bar with "Physical Product" and "Plant Designer" tabs, and a bottom toolbar with various icons. The simulation shows a complex industrial environment with multiple levels and structures.

Key Values

- Efficient layout & space optimization
- Early discovery of layout problems
- Collaboration and validation of proposed layout
- Simulation of "What If" layout scenarios

FLOW OPTIMIZATION EXPERIENCE

1 Plant Layout



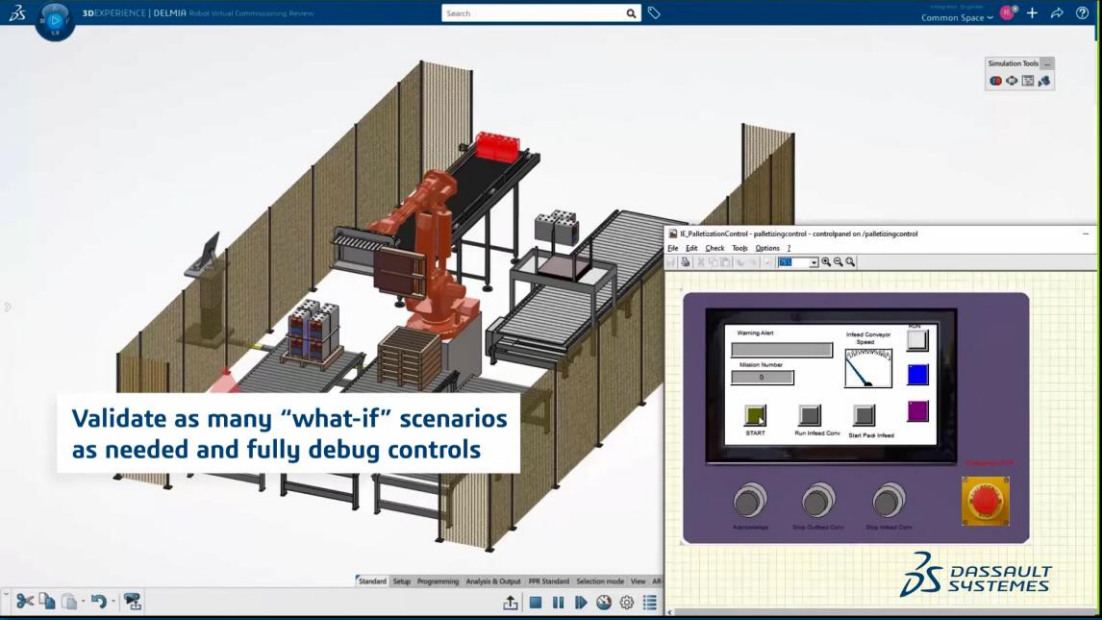
2 Flow Optimization

A screenshot of the 3DEXPERIENCE DELMIA Factory Flow Simulation software. The interface is divided into several panels. On the left, there's a 'Resources' tree showing a hierarchy of assembly machines (OP10, OP20, OP30, OP40, OP50) and operators (Maris, John, David). In the center, a large 3D model of a factory floor is shown with a green arrow indicating a production path. To the right, there's a 'System Performance Monitor' window displaying a bar chart of system utilization. Below the 3D model, there's a 'Plot Settings' window with 'Start Time' at 0:00 and 'End Time' at 5:71:00. At the bottom, there's a 'Menu' window with a pie chart. The software title bar reads '3DEXPERIENCE | DELMIA Factory Flow Simulation' and the file name is 'PPR_Seat_Assembly_Line.f'.

Key Values

- Visualize production flow
- Understand the impact of introducing / modifying a line
- Identify bottlenecks
- Optimize number of resources to operate a line

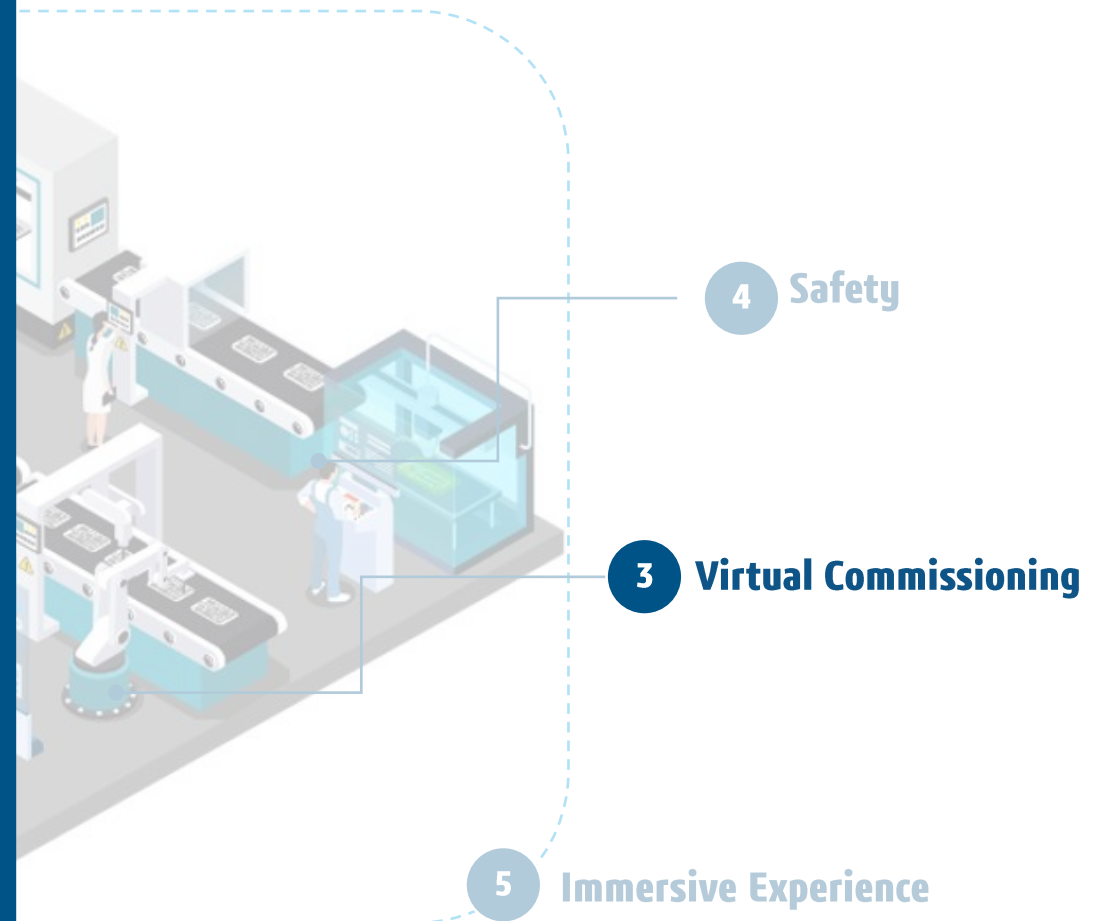
VIRTUAL COMMISSIONING EXPERIENCE



Validate as many "what-if" scenarios as needed and fully debug controls

Key Values

- Ease equipment adoption within production lines
- Visualize & assess equipment's mechanical behavior
- Accurately determine equipment downtime & maintenance cycle
- Early discovery & resolution of resource related issues



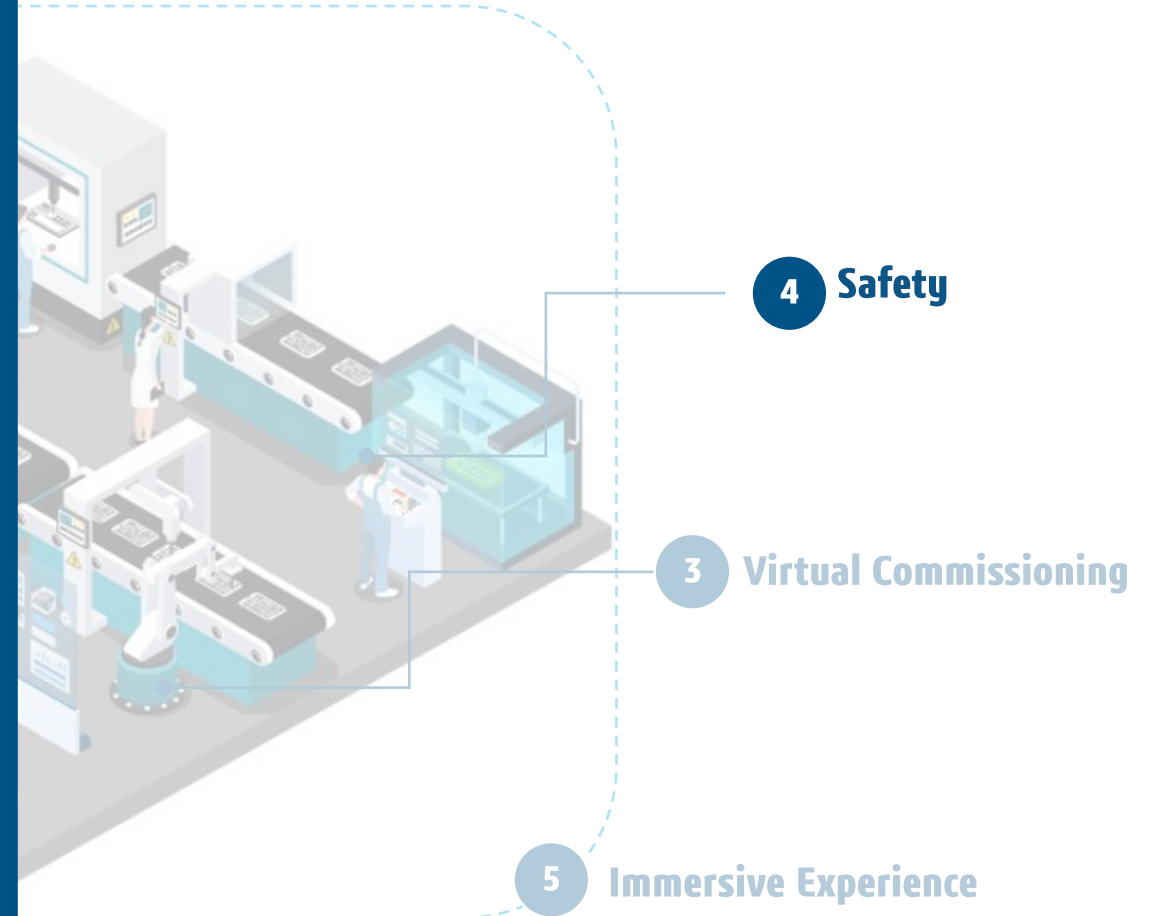
SAFETY EXPERIENCE

Operation Id	Operation Description	Work Instruction Id	Work Instruction Description	Cycle	Posture	Hand	Action	Task Time	Motion Speed	Work Hours Per Day	Load Considered	Total Weight	Left Weight	Right Weight	Frequency
R	Load 1 tire on tire holder	4	carry tire to holder	2	Standing	Both	Carry	3 s or less	Rapid motion	Up to 8 hours	Yes	19000	9500	9500	4.00

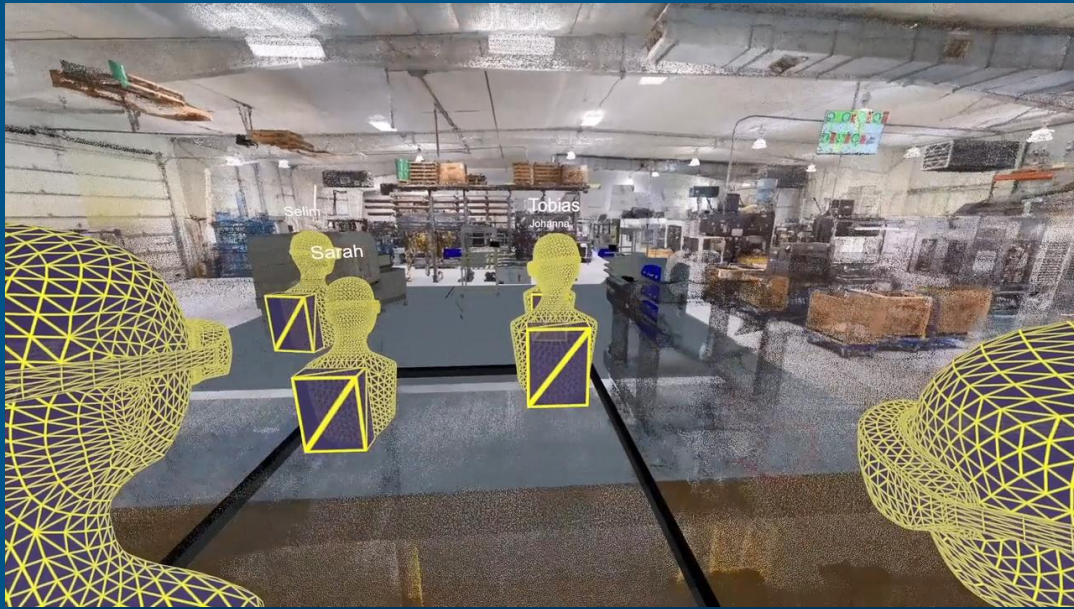
Key Values

Simulate to prevent safety risks:

- Musculoskeletal disorders
- Ergonomics problems
- Cold/Heat spots to operate
- Spread of pathogens
- Noise levels



IMMERSIVE EXPERIENCE



Key Values

- Investment decision making
- Change adoption from factory stakeholders
- Immersive training for operators

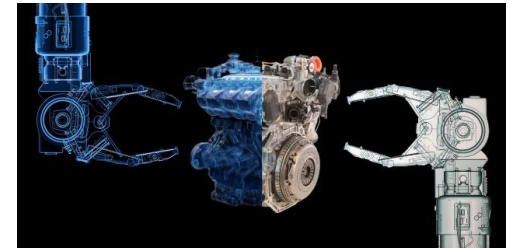


4 Safety

3 Virtual Commissioning

5 Immersive Experience

CUSTOMER CASE | GLOBAL POWER ENGINE LEADER

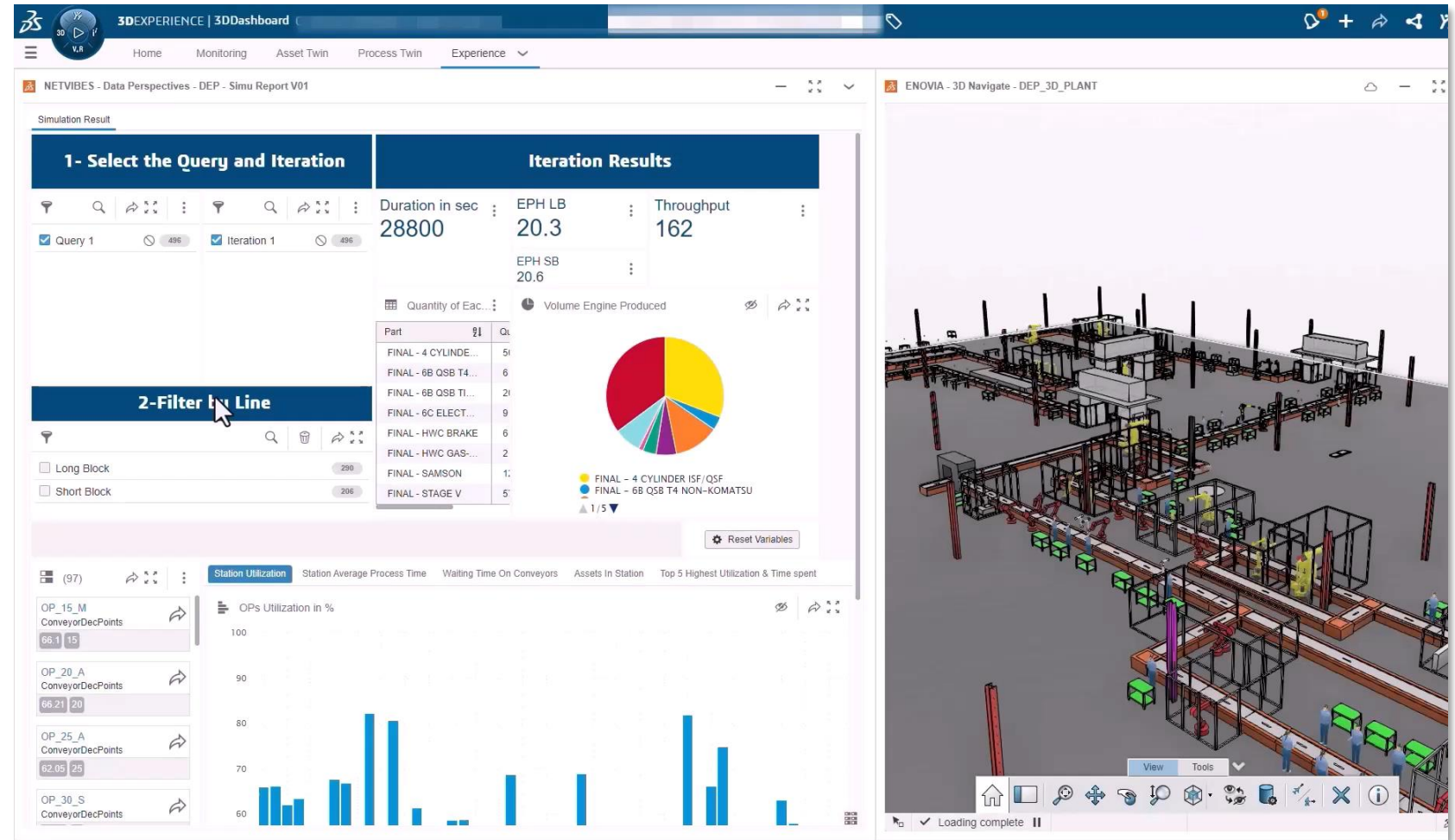


Challenges

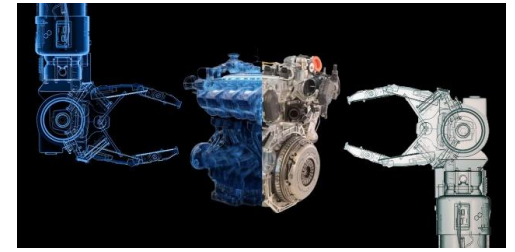
- Must adapt production for a **new mix of engine platforms** to comply with new regulation
- **Improve productivity** in while absorbing new complexity

Value

- **Optimize** operation cost aligned to throughput target for the mix of **engine production rate**
- **Accelerate manufacturing digital transformation** program with other sites



CUSTOMER CASE | GLOBAL POWER ENGINE LEADER

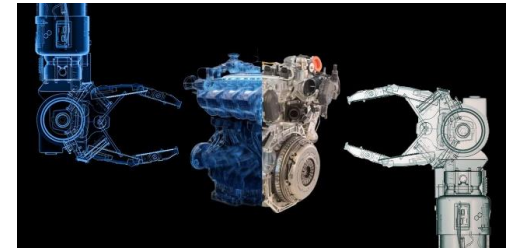


Asset Twin Level

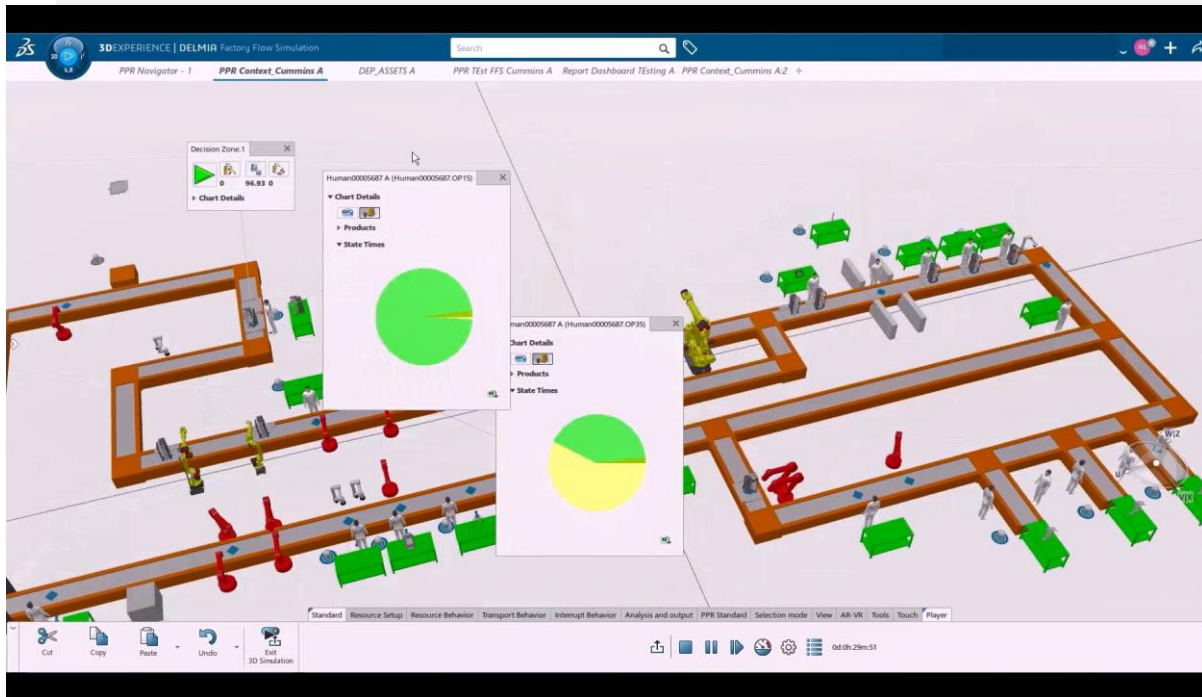
- Commission **Virtual Twins for lines** in 4 weeks.



CUSTOMER CASE | GLOBAL POWER ENGINE LEADER



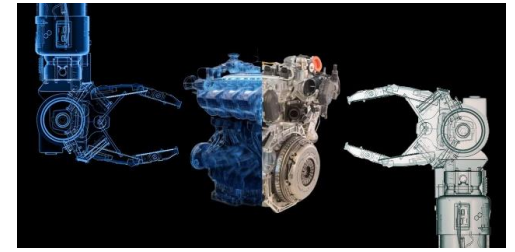
Process Twin Level



- Simulate flow performance across each scenario in a week.

- Identify bottlenecks on data perspectives across scenarios and optimize for targeted KPIs on Production, Resource and Operator Utilization, ...

CUSTOMER CASE | GLOBAL POWER ENGINE LEADER



Asset Twin Level

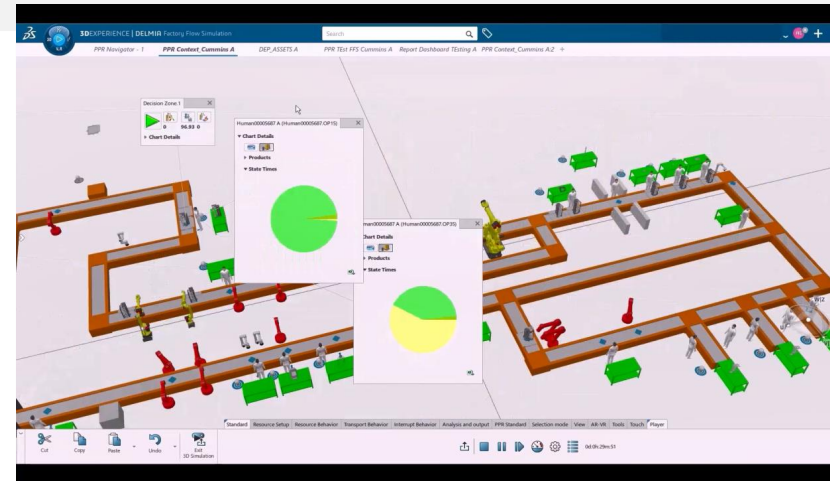
- Commission **Virtual Twins for lines** in 4 weeks.



- **Validate** changes to the production system

Process Twin Level

- **Simulate flow performance across each scenario** in a week.



- **Identify bottlenecks** on data perspectives across scenarios and **optimize** for targeted KPIs on Production, Resource and Operator Utilization, ...

AN ATTRACTIVE BUSINESS CASE

Your Business Gains

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Time to Value
Cost to Value
Risk to Value

Factory Twin as a Service Adaptive Pricing



Quantity

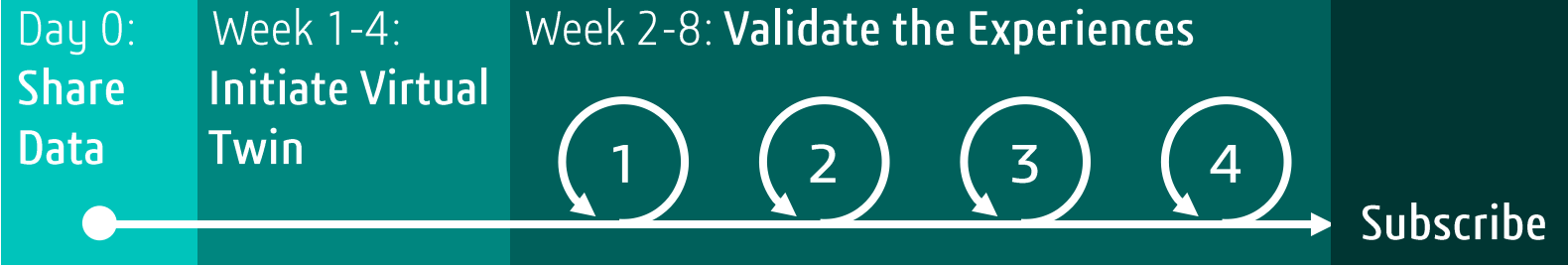


Scope



Subscription
Duration

START NOW





shortcut to value

THANK YOU FOR YOUR INTEREST

