



Digital Twins

Manufacturing perspective

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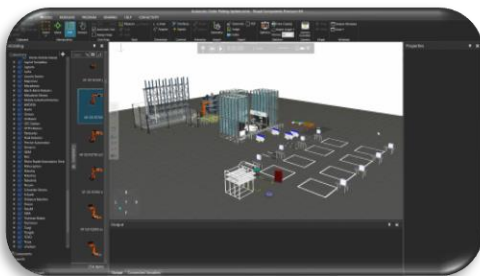
FROM CONCEPT TO REALITY



1

Concept

- ☐ Visualize
- ☐ Communicate
- ☐ Quick



2

Plan

- ☐ Statistics
- ☐ Analyze
- ☐ Optimize



3

Commission

- ☐ Validate
- ☐ PLC
- ☐ Robot Controller



4

Operate

- ☒ Robot Programming
- ☒ Remote Monitor
- ☒ Continuous improvement



FROM CONCEPT TO REALITY

VISUAL
COMPONENTS



1

Concept



Visualize



Communicate



Quick



Static layout details

2

Plan



Statistics



Analyze



Optimize



Tools, grippers

3

Commission



Validate



PLC



Robot Controller



Actuators, linear units

4

Operate



Robot Programming



Remote Monitor



Continuous improvement

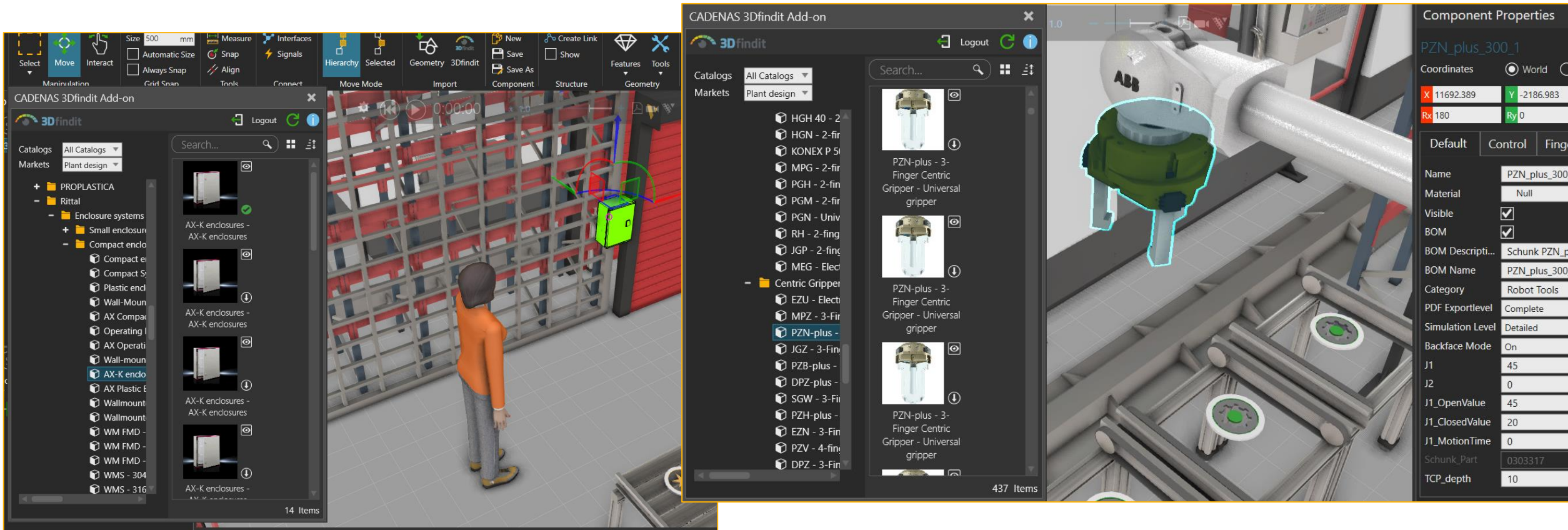


Life cycle Improvements

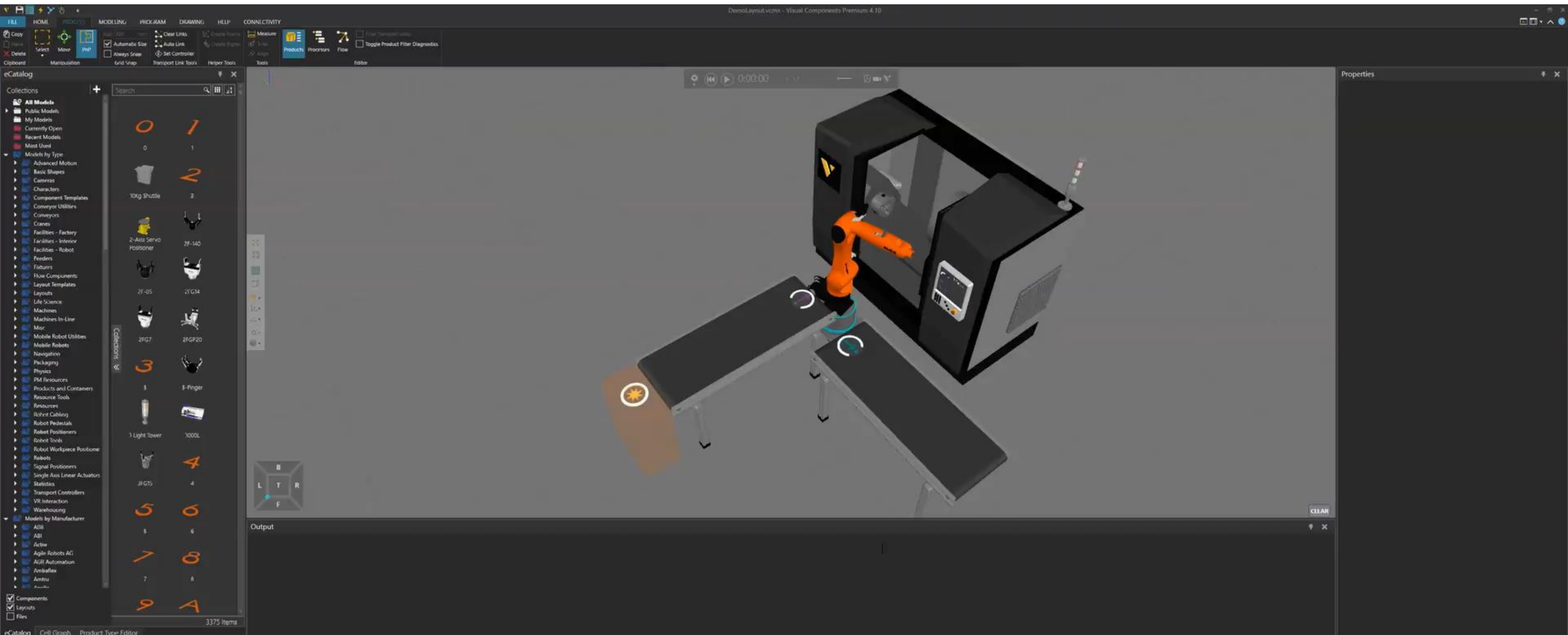


CADENAS

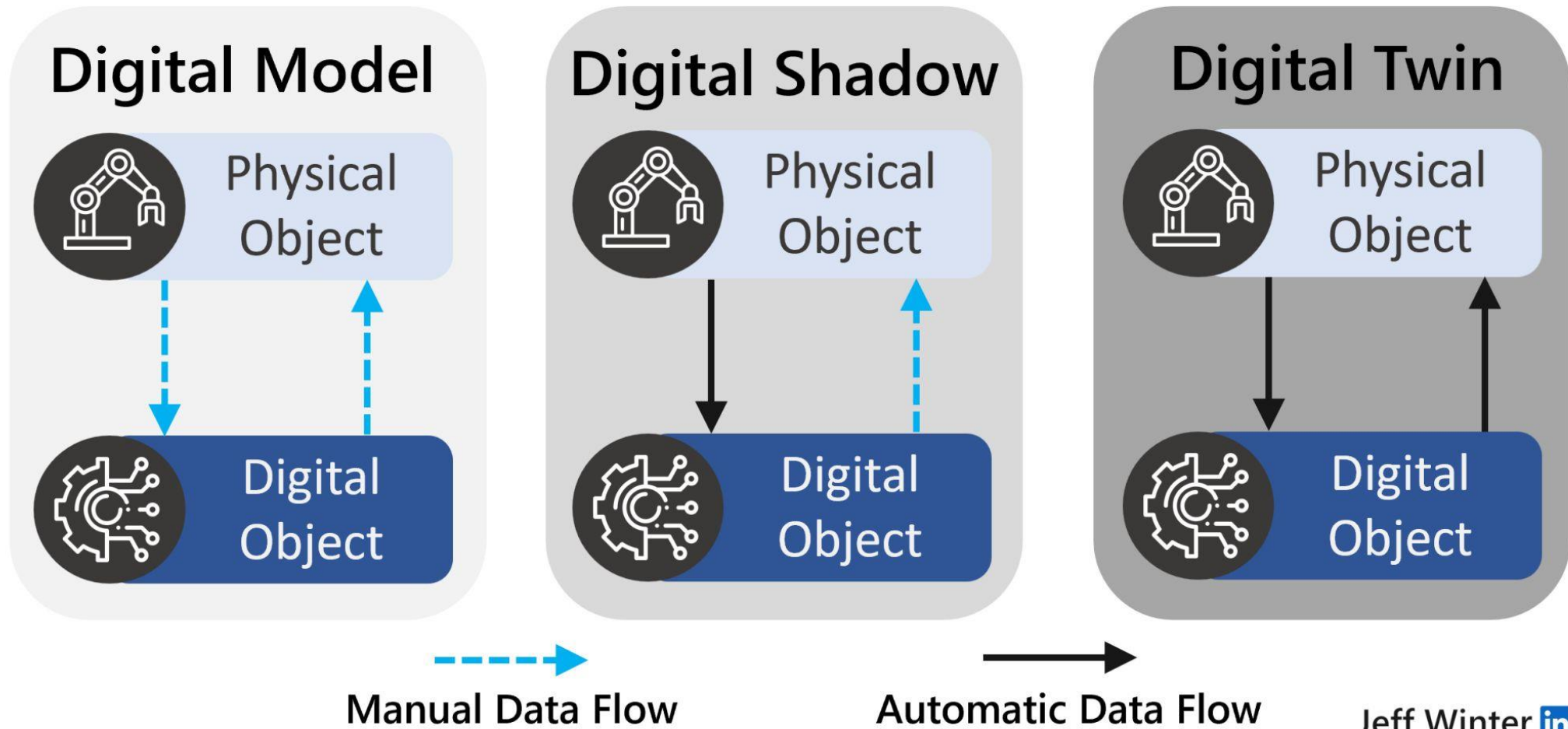
FROM CONCEPT TO REALITY



FROM CONCEPT TO REALITY



Relationship Between the Physical World & Digital World



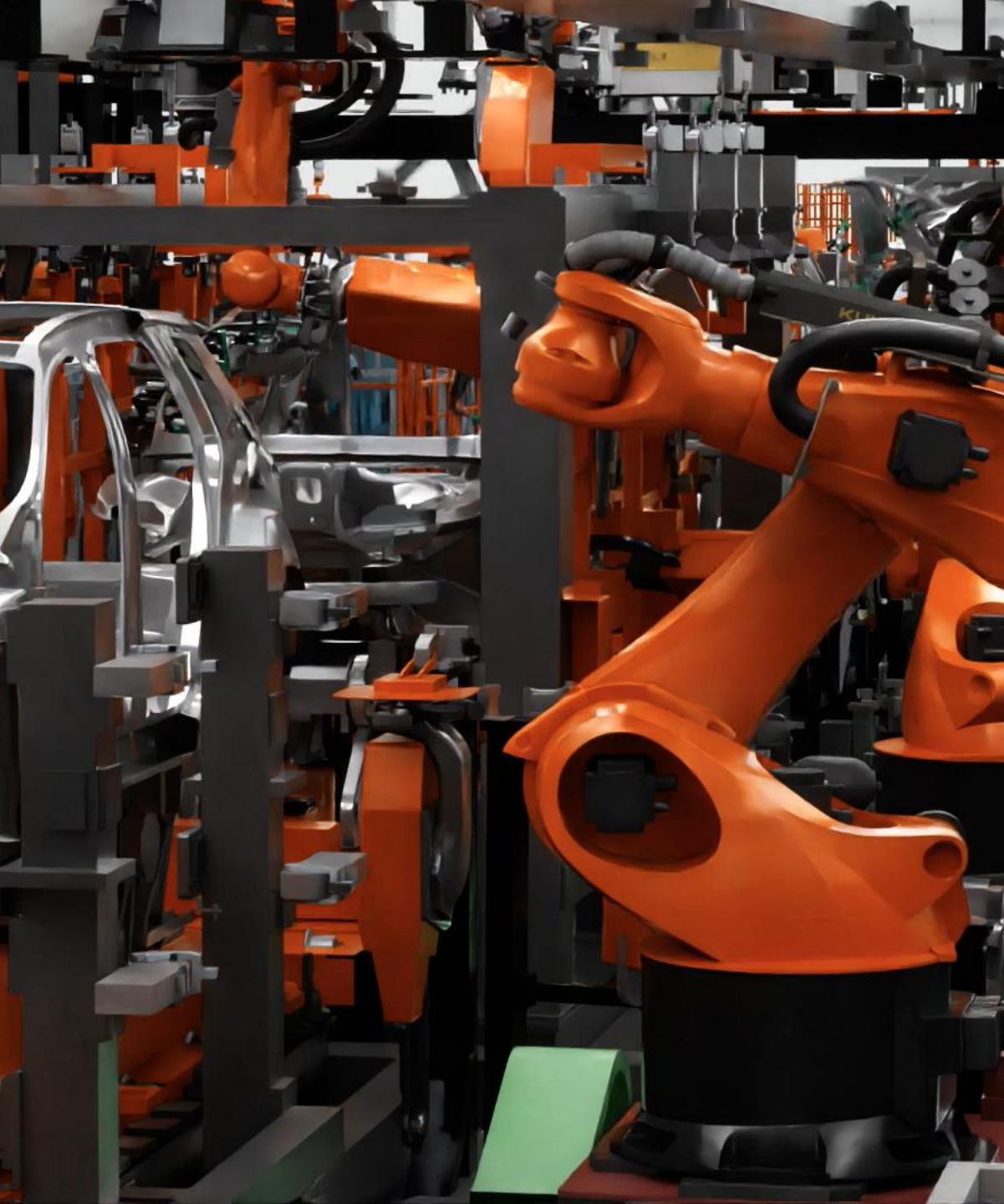
PRODUCTION SYSTEM LIFECYCLE



IMPLEMENTATION OF DIGITAL MANUFACTURING



Digital Model Digital Shadow Digital Twin



Why digital world?



- Risks and Time
- Efficiency and Waste
- Flexibility and Adaptability

*Manufacturing is volatile and complex,
data driven environment.*



Thank You