

Airbus Innovation Days 2019

**The Industrial challenge at Airbus -
Production System Excellence as
an enabler for continued success**

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AIRBUS

Setting the scene

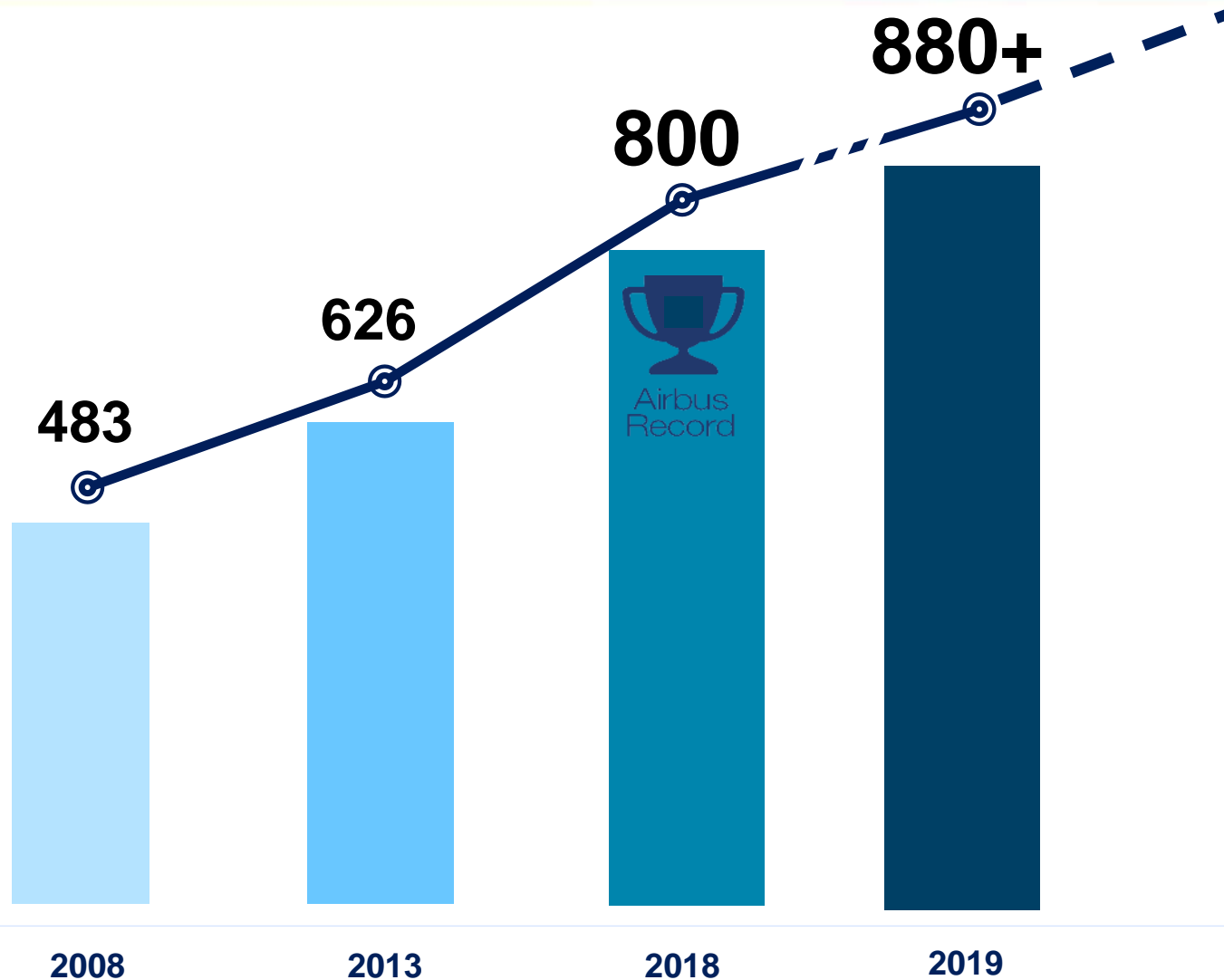
First 100 days' impressions:

- Passionate people with excellent industrial expertise
- High complexity & highly customised products
- Complex and partly challenged supply chain

Action fields:

- Keep safety and quality focus
- Continue to grow Airbus Operating System (AOS)
- Simplification, Empowerment and Accountability
- Develop the industrial flow
- Digitise and automate in a people centric way

Rising to the challenge



- Moving towards an end-to-end industrial flow
- Ensuring the supply chain can sustain
- Looking more into automation and robotics
- While maintaining the highest standards of quality and safety

Our vision for the future of manufacturing

Workplace design



Digital continuity



Automation

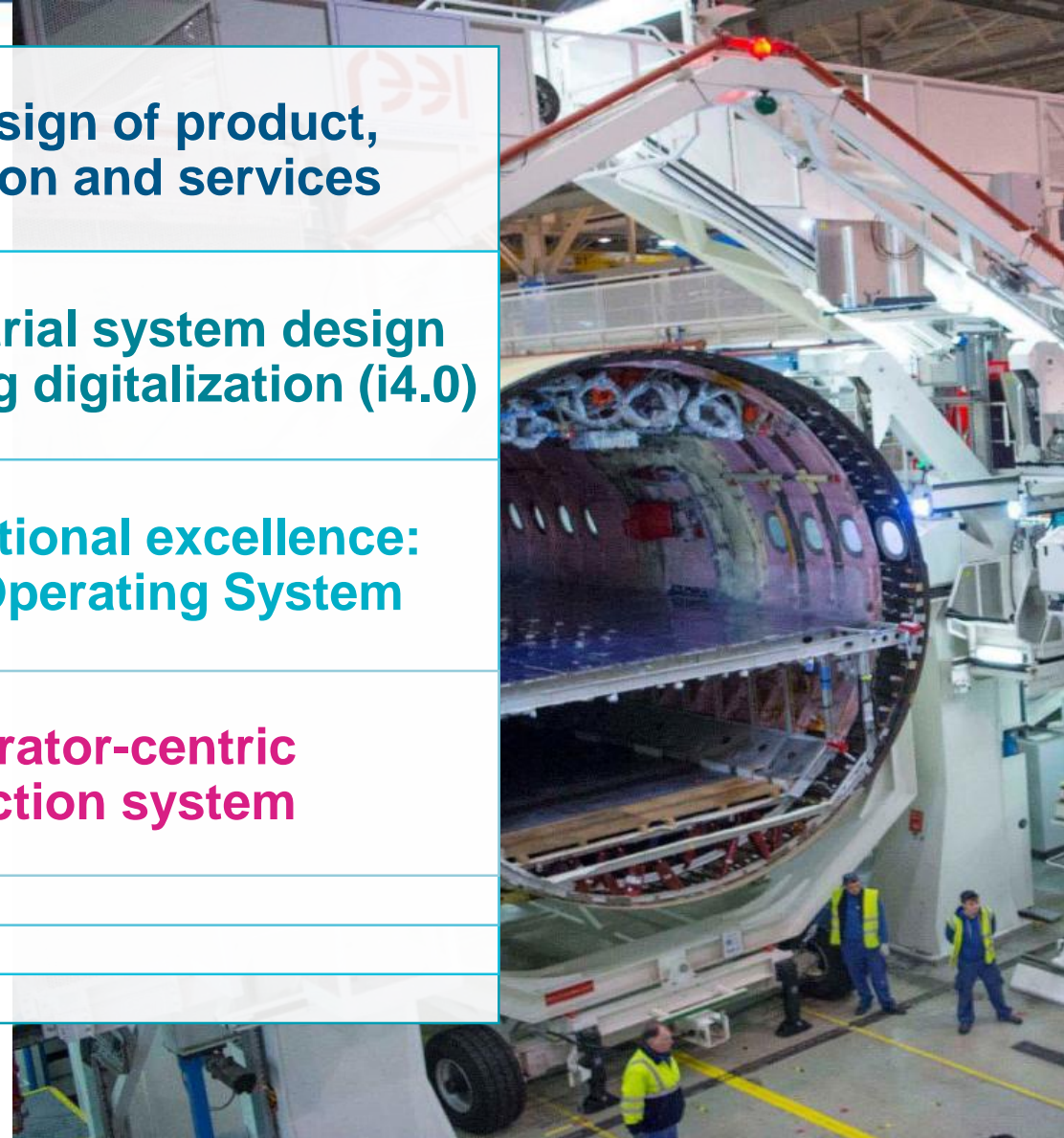


4. Co-design of product, production and services

3. Industrial system design including digitalization (i4.0)

2. Operational excellence: Airbus Operating System

1. Operator-centric production system



Workplace design: safer, easier and sustainable

- Health, safety & ergonomics
- Workers supported by smart wearables
- De-Carbonisation of production



Digital continuity: organising end-to-end flow

1.

Product Design

2.

Production

3.

Services

PDM



ERP



MES



SKYWISE

DIGITAL CONTINUITY across the whole Product Life Cycle

PDM: Product Data Management
ERP: Enterprise Resource Planning
MES: Manufacturing Execution System

Automation: continuously optimising production

- From heavy automation to light and increasingly collaborative robots
- Materials to point of use
- IoT-based transparency for materials: real-time tracking and alerts
- Logistics Mobile Terminal: reporting logistics in real-time
- Skywise in production e.g. for quality management



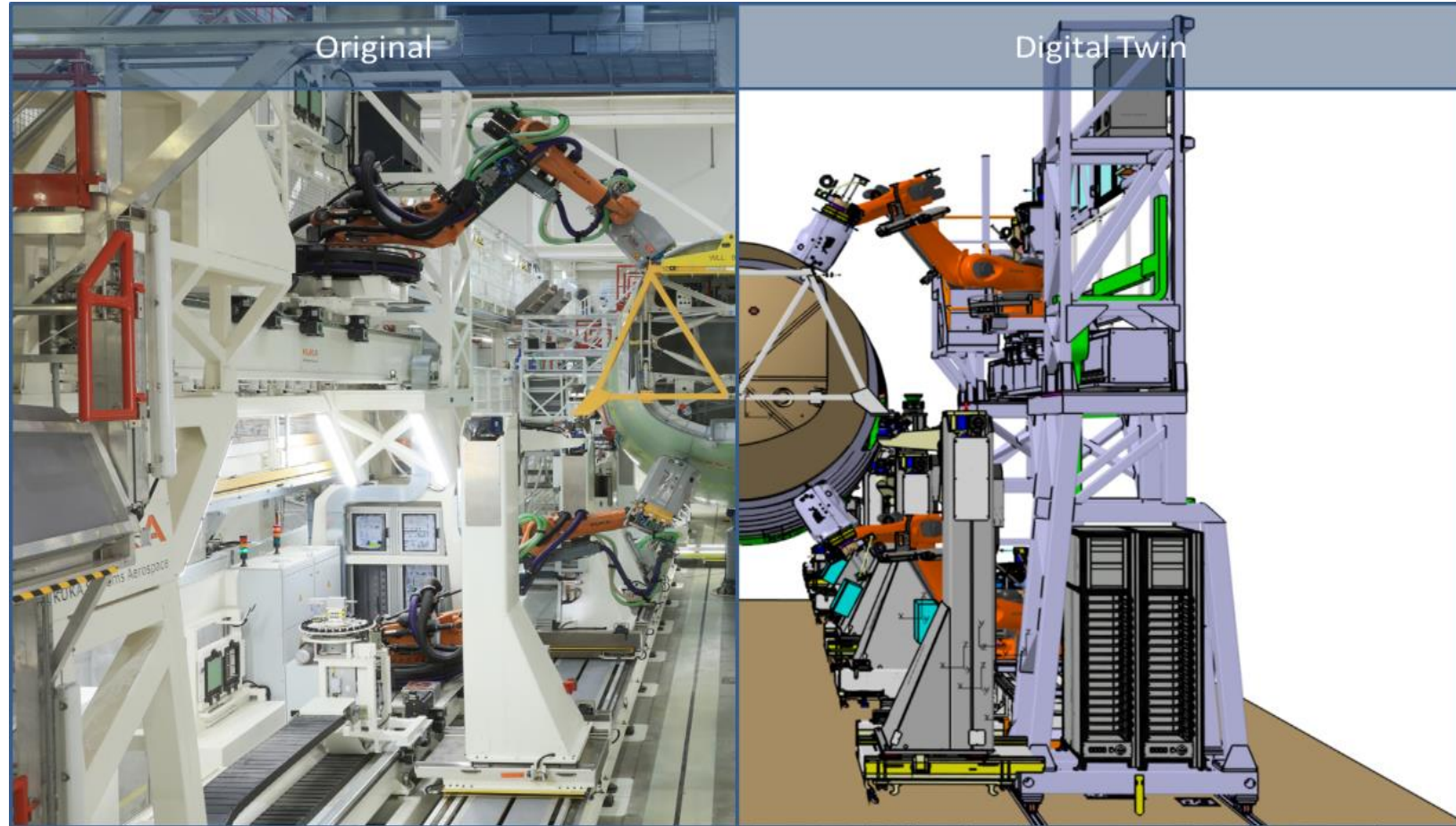
Hamburg 4th FAL Hangar 214 Drilling



Autonomous transport robot

DDMS: preparing the next industrial leap

- Developing a digital and integrated industrial system
- Using modelling and simulations for the design of the production system
- ... to move towards fully deployed Digital Design Manufacturing & Services



Summary and key take-aways

- Competitive challenge ahead – industrial performance will make the difference
- Aerospace production will continue to require a high manual work content
- Basis for further and lighter automation in Airbus:
 - Co-Design and Design for Manufacture and Assembly (DfMA)
 - Digital Continuity across the whole Product Life Cycle



Thank you!

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