Der Digitale Zwilling
Zwischen Realität und Vision

Dr. Katharina Schäfer, SAP
September 11, 2018
Global Aviation Market Trend

Global Aviation Market Trend

33,000

New aircraft required until 2035

Challenges in the aviation sector

- Shorter and more cost-efficient development cycles
- Shorter production cycles
- End of life strategies
- Increased efficiency in operation and reduction of environmental impact
Digital Twin reaching top of hype cycle

Original digital twin defined

Physical product in real space

Virtual product in virtual space

Digital twin

Data

Info
Digital twin and digital thread

Closed loop engineering

- Ideas
- Designs
- Geometries
- Stress simulations
- Cost

- Quality fingerprint
- Production data
- Ramp Up

- Performance
- Issues
- Cost
- Profitability

The digital world

Engineering → Production → Installation → Operation → Decomission

The physical world

As Designed → As Built → As Delivered → As Maintained

© 2018 SAP SE or an SAP affiliate company. All rights reserved. | PUBLIC
Digital Twin in aviation - Examples

AVIATAR

skywise

Boeing AnalytX

PREDIX
It’s about sharing data

Tier 2

Tier 1

OEM

Airplane in operation

MRO provider

Tier 1

Airline

Regulator
The Network of Digital Twins
Digital, physical, conditional, commercial

Manufacturer
Product intelligence
Collaborative R&D, engineering and manufacturing

Asset intelligence
Asset Management, predictive maintenance and service

Operator
The Network of Digital Twins
Digital, physical, conditional, commercial

Product intelligence
Collaborative R&D, engineering and manufacturing

Asset intelligence
Asset Management, predictive maintenance and service

Manufacturer

Operator

SAP S/4HANA
Business Transactions
SAP Leonardo
Intelligent Insights

© 2018 SAP SE or an SAP affiliate company. All rights reserved. I PUBLIC
Network of digital twins to drive business outcomes

- Shorter and more cost-efficient development cycles
- Shorter production cycles
- End of life strategies
- Increased efficiency in operation and reduction of environmental impact
Thank you.

Contact information:

Dr. Katharina Schäfer
Solution Management
Aerospace and Defense Industry
SAP SE
katharina.schaefer@sap.com

Follow me on Twitter @aerokathi
Disclaimer

The information in this presentation is confidential and proprietary to SAP and may not be disclosed without the permission of SAP. Except for your obligation to protect confidential information, this presentation is not subject to your license agreement or any other service or subscription agreement with SAP. SAP has no obligation to pursue any course of business outlined in this presentation or any related document, or to develop or release any functionality mentioned therein.

This presentation, or any related document and SAP's strategy and possible future developments, products and or platforms directions and functionality are all subject to change and may be changed by SAP at any time for any reason without notice. The information in this presentation is not a commitment, promise or legal obligation to deliver any material, code or functionality. This presentation is provided without a warranty of any kind, either express or implied, including but not limited to, the implied warranties of merchantability, fitness for a particular purpose, or non-infringement. This presentation is for informational purposes and may not be incorporated into a contract. SAP assumes no responsibility for errors or omissions in this presentation, except if such damages were caused by SAP’s intentional or gross negligence.

All forward-looking statements are subject to various risks and uncertainties that could cause actual results to differ materially from expectations. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of their dates, and they should not be relied upon in making purchasing decisions.