



3DEXPERIENCE®

DIGITAL THREAD IN PRODUCT LIFECYCLE : OPERATIONS & MAINTENANCE

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 DASSAULT SYSTEMES | The 3DEXPERIENCE® Company



Increase Fleet Availability at Less Cost

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Maintenance Task Progress

60%

DIGITAL THREAD IN PRODUCT LIFECYCLE

Closing the gap between OEM & Operators – Between Virtual & Real



AS NEEDED

AS SPECIFIED

AS DESIGNED

AS PLANNED

AS BUILT

AS CERTIFIED

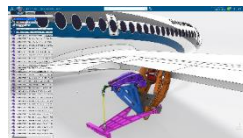
AS MAINTAINED



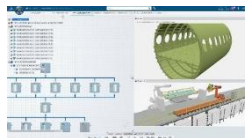
CONCEPTUAL STUDIES



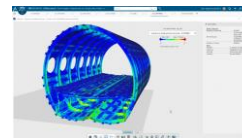
PRELIMINARY DESIGN & JOINT DEFINITION



DETAILED DESIGN



MANUFACTURING & ASSEMBLY



GROUND & FLIGHT TESTS



IN-SERVICES OPERATORS & SUPPORT

AS GOVERNED

People and Organization

Program & Contract Management

Configuration and Change Management

Validation and Verification

Business Intelligence

Knowledge and Know-how Capitalization

Platform services

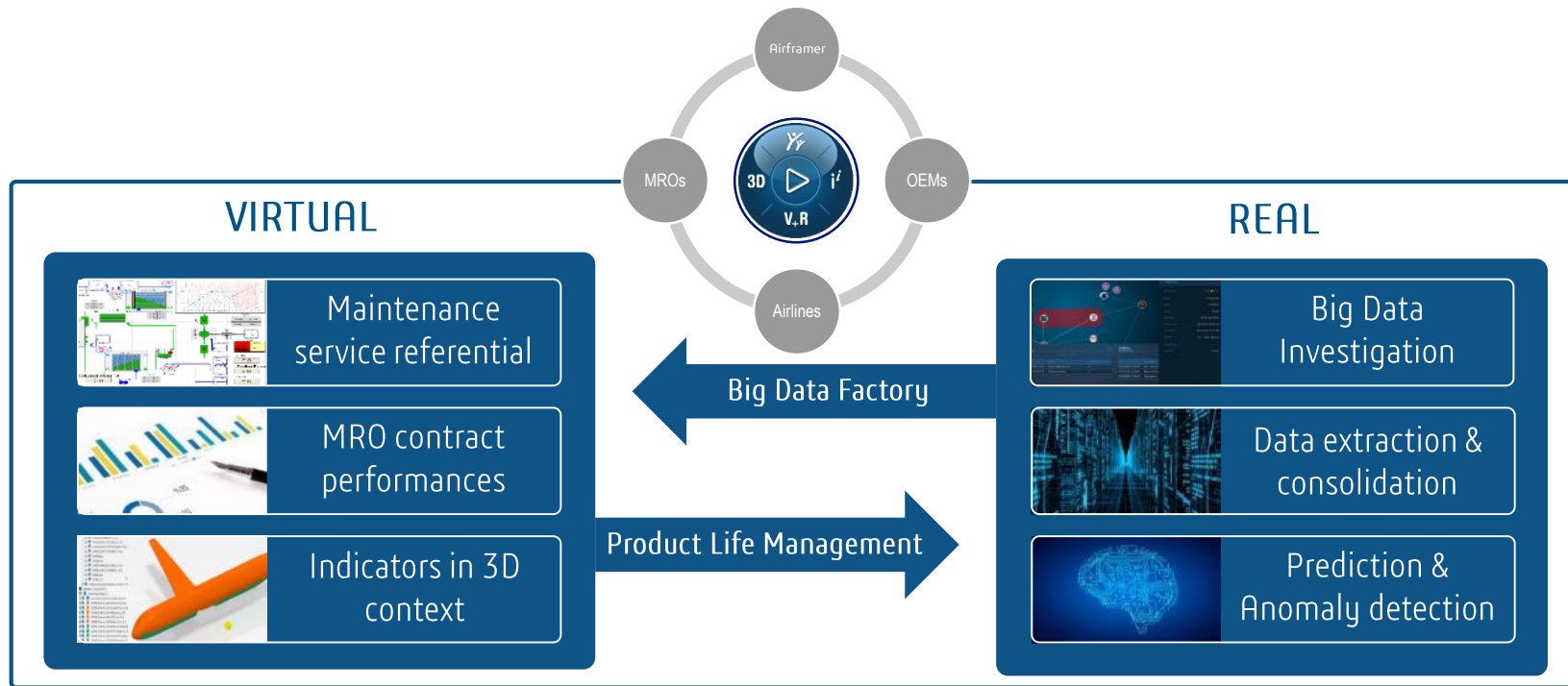


Openness



DIGITAL THREAD IN PRODUCT LIFECYCLE

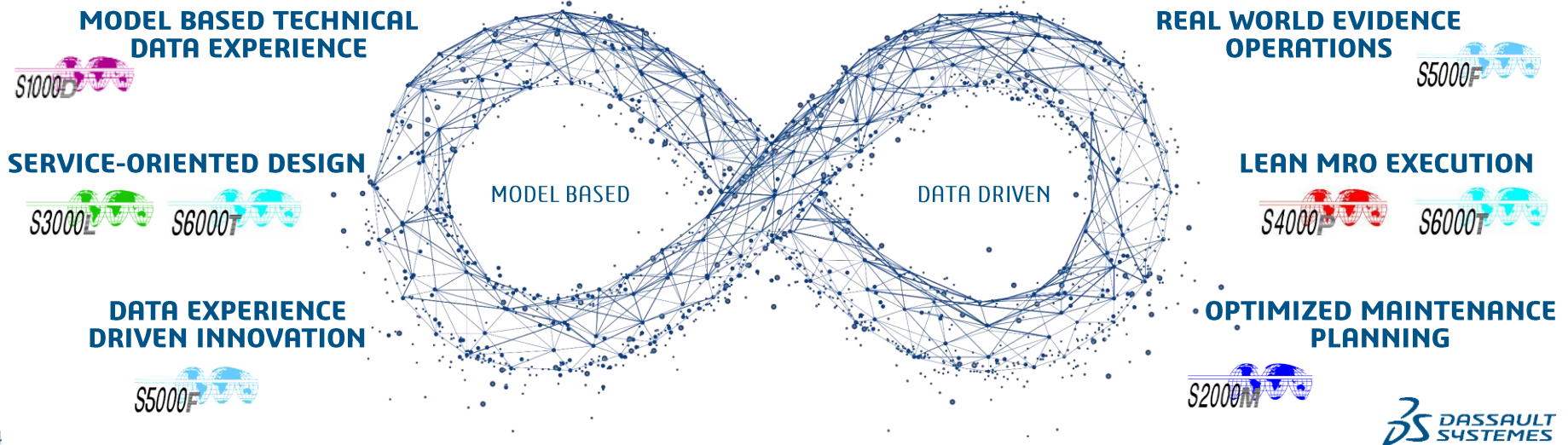
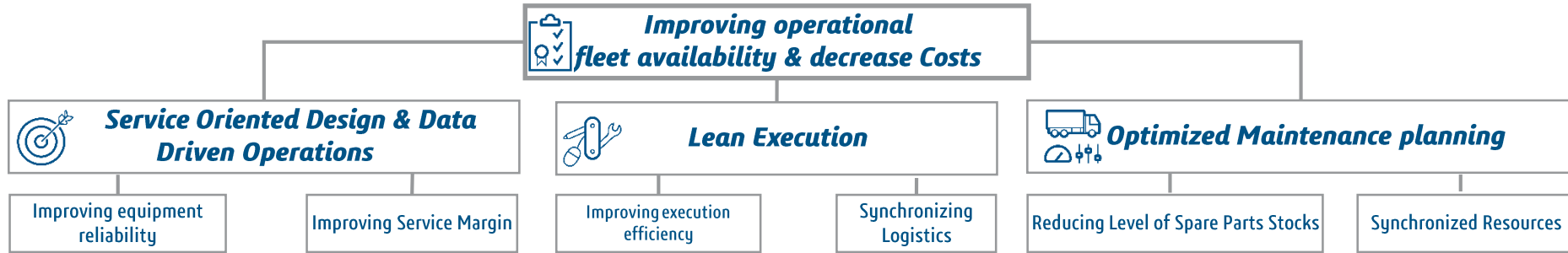
Closing the gap between OEM & Operators – Between Virtual & Real



Closed Loop Collaboration & Continuous Improvement
for Service Operation and Fleet Availability

DIGITAL THREAD IN PRODUCT LIFECYCLE

Virtual Twin Experience Strategy



DIGITAL THREAD IN PRODUCT LIFECYCLE

Addressing Business Objectives & Benefits through Business Transformation



New Profitable Service Business

Increase Business
New Service Opportunities

BUSINESS MANAGEMENT PLATFORM



Multi echelon Spares Management

Reduce
Inventory

INTEGRATED SPARE PARTS AND
MAINTENANCE PLANNING



Predictive Maintenance

Optimize
Maintenance

BUSINESS ANALYTICS PLATFORM



Virtual & Real Execution

Faster
Execution

DIGITAL CONTINUITY TROUGHOUT MRO



3D Printing

Lean
Obsolescence Management

ON DEMAND AT ANY PLACE



Web centric Data Platform for All

Data Access
Throughout Value Network

3DEXPERIENCE PLATFORM



Support & Service Engineering

Concept Safety Assessment

- ▷ Execute Reliability, Availability, Maintainability and Safety analysis following S4000P & S3000L
- ▷ Define failure modes, analyze causes and gravity effects of each failure mode

Design for Service

- ▷ Optimize engineering design in the context of maintenance execution
- ▷ Minimize downtime by assuring visibility, reachability, safety or demount-ability

Service Process Engineering

- ▷ Provide a fully integrated solution to cover service engineering
- ▷ Leverage up-to-date engineering data and related 3D data to build Maintenance Tasks

Service Tooling

- ▷ Complete service tooling solution on a single platform
- ▷ Tool supplier integration and collaboration
- ▷ Full traceability on tool requirements, design, delivery and changes

Technical Documentation

- ▷ Keep digital thread, configuration and change control into publications
- ▷ Automatically generate technical documents based on model based digital data

Dismantling & Recycling Process Engineering

- ▷ Understanding aircraft condition at end of life
- ▷ Identifying high value items and its condition
- ▷ Planning the dismantling strategy and procedures

Knowledge Content Authoring MRO

- ▷ Authoring service training content based on up-to-date Service Engineering content
- ▷ Capturing knowledge and business best practices for internal and external re-use

SUPPORT & SERVICE ENGINEERING

Increased Service Efficiency with Integrated Logistic Support Engineering

Gain in Efficiency



Decrease Service Lead time



Improve Right First Time



Increase cross Service Domain Collaboration Efficiency

Gain in Accuracy



Increase Service Plan confidence and quality



Increase digital dataset completeness and consistence



Reduce late & costly modifications to meet Service Engineering target KPIs



In Service Engineering

Engineering Power to Improve Fleet Availability

SERVICE ANALYTICS & PREDICTION

Closing the Gap between OEM & Operator – Between Virtual & Real

The screenshot displays the 3DEXPERIENCE 3DDashboard interface for Flight Operations. The main content area is titled "Maintenance Analysis - KPIs Analysis" and is divided into several sections:

- LM Criticality:** A donut chart showing a red ring, labeled "Heavy".
- SM Criticality:** A donut chart showing an orange ring, labeled "Medium".
- Line Maintenance:** A bar chart comparing "Average (6 months)", "Last month", and "Forecast" for two components: "LH Inner Spoiler..." and "BRAKE TEMPERA...". The values for "Average (6 months)" are 11.5 and 11.75, respectively. The values for "Last month" and "Forecast" are 1 for both.
- Component Details:** Two panels provide detailed metrics for "BRAKE TEMPERATURE SENSOR" (N101-32410500) and "LH INNER SPOILER 20" (N101-57712000). Each panel includes metrics for MTBUR, MTBF, LM, SM, and Inventory, along with "Locate" and "Investigate" buttons.
- 3D Model:** A 3D model of an aircraft engine component, "ENOVIA - 3D Navigate - N101-0000000", is displayed on the right side of the dashboard.

The interface also features a navigation bar at the top with the 3DEXPERIENCE logo, a search bar, and various utility icons. The bottom right corner shows a 3D navigation toolbar with "View" and "Tools" options.

