

DEFENCE AND SPACE



Looking for the Digital Twin Aircraft

EXPO MATLAB 2019

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Alonso Pardo Sanguino 28 Mayo 2019



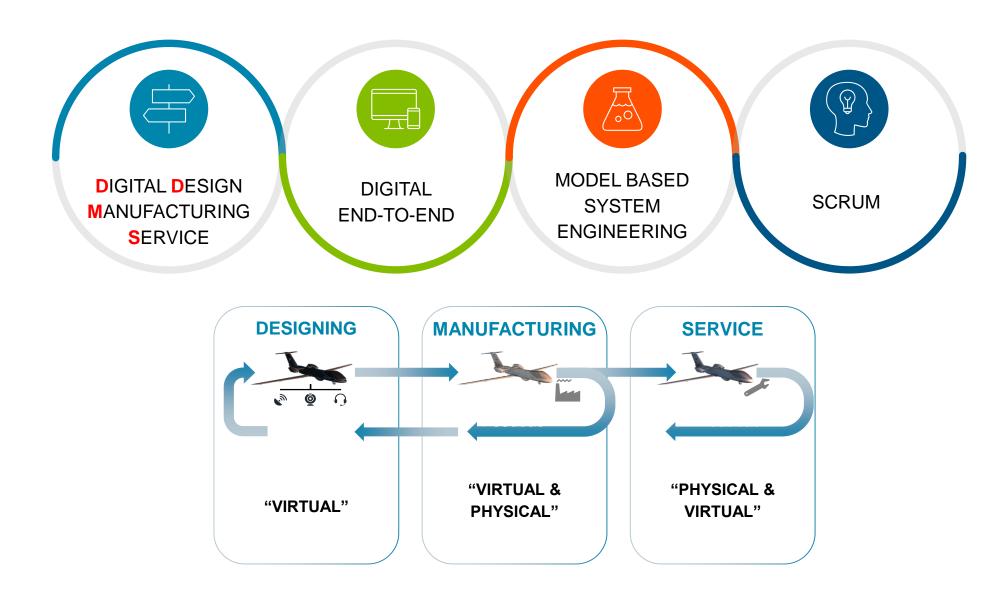
AIRBUS DEFENCE AND SPACE

MRTT MANUFACTURING ENGINEERING DEPARTMENT





DIGITAL TWIN AIRCRAFT





BASIC CONCEPTS AND TOOLS CUSTOMER **REQUIREMENTS FUNCTIONAL SYSTEM TEST MODEL REQUIREMENTS TEST MEAN REAL FUNCTIONAL** MODEL **MODEL** REQUIREMENTS MANUFACTURING **PHYSICAL SCHEMATIC** MODEL **MODEL MODEL GROUND TEST VALIDATION INSTRUCTION TEST MODEL MATLAB Simulink Simscape**

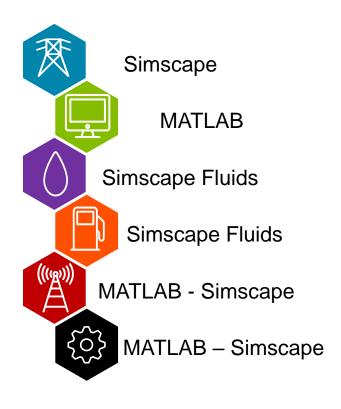


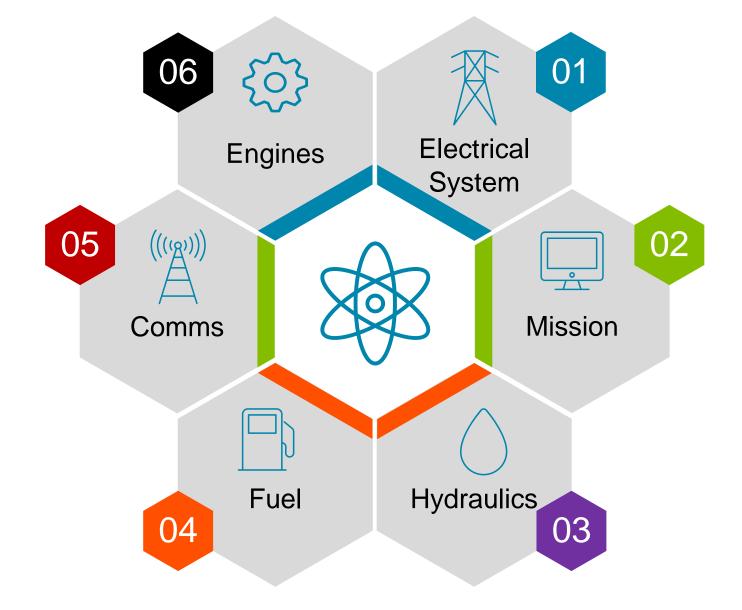
THE BRIDGE





NEXT STEP



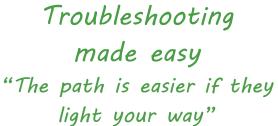




CONCLUSIONS

Modelling cost
"A big model
needs time"

New skills
required



Detect design failures "The earlier, the better"



Flexibility

"Give me the correct tool, and I shall move the plane"

"A small effort becomes a big difference"

Dynamic tool "Wiring diagrams are alive!"

Deep understanding of the system "Let the engineers be engineers again"



QUESTIONS



Thank you

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