More Affordable Aircraft through eXtended, Integrated and Mature nUmerical Sizing.

- MAAXIMUS aims at achieving the fast development and right-first-time validation of a highly-optimised composite fuselage thanks to a coordinated effort between virtual structure development and composite technology.

- The Consortium is made up of 57 partners. It gathers the key players in the aircraft industry, R &T Centres, universities and software providers.

- The project budget is 67 M€ and the project duration is 5 years (2008-2013). It is funded by the European Commission through FP7 work grant number 213371 and led by AIRBUS.

SEVENTH FRAMEWORK PROGRAMME

AIRBUS

www.maaximus.eu

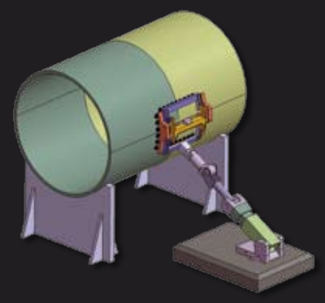
Maaximus Objectives

Highly-Optimised Composite Fuselage

- Enable a high-production rate: 50% reduction of the assembly time of fuselage section
- Reduce the manufacturing and assembly recurring costs by 10% compared to the ALCAS equivalent reference
- Reducing weight by 10%, compared to best available solutions on similar fuselage sections (F7X, A320 and TANGO fuselage)

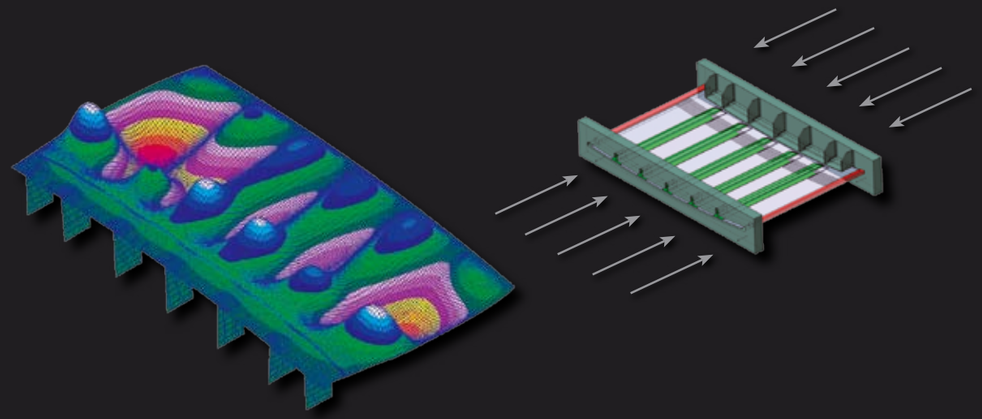
Faster Development

- Reduce by 20% the current development timeframe of aircraft composite structures from preliminary design up to full-scale test
- Reduce by 10% the non-recurring cost of aircraft composite structures from preliminary design up to full-scale test (ALCAS reference)



Right-First-Time Structure

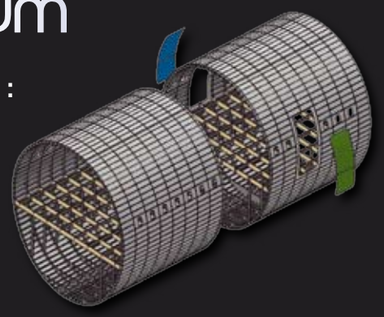
- Reduce the airframe development costs by 5% compared with the equivalent development steps in an industrial context



Maaximus Consortium

18 Countries, 57 Partners, including 7 SME's :

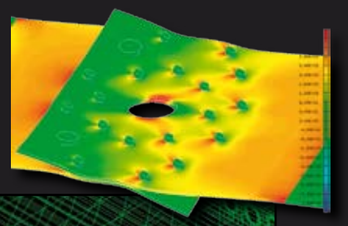
- Aircraft Manufacturers and Software providers
- Test and R&T Centres
- Academic Institutions



Maaximus Virtual Platform

MAAXIMUS will deliver a multi-skill framework for the fast development of composite airframes, with a wide spectrum of advanced capabilities :

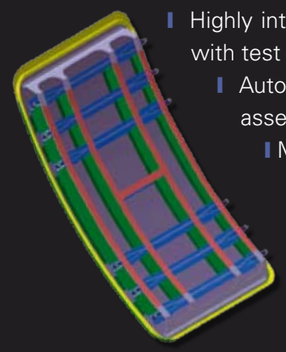
- Predictive capabilities from material properties and allowables of structural details and panels behaviour up to full-scale barrel behaviour
- Multi-objective and multi-scale design optimization capabilities
- Innovative composite structure optimisation enablers
- 10^9 Degrees of freedom solver capabilities in Non-Linear range
- Multi scale damage modelling techniques
- Close loop between design, analysis, manufacturing, NDI testing



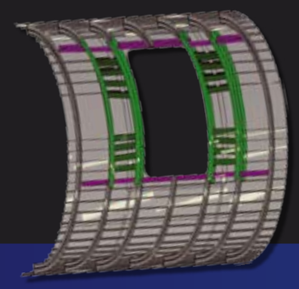
The MAAXIMUS Virtual Platform will allow faster identification and earlier validation of the best solutions.

Maaximus Physical Platform

The MAAXIMUS Physical Platform will allow the development and validation of the appropriate composite technologies for low-weight and high production rate aircraft. It will deliver a new set of manufacturing and assembly capabilities, balancing weight - cost - production rate criteria:



- Highly integrated sub-components and shimming-optimised subcomponent assembly, with test demonstration of structural details and panels
- Automatic section measurements for right-first-time best-fit positioning and assembly
- Manufacturing of two one-shot fuselage sections and automatic assembly into one barrel
- In-depth testing of the barrel, including fatigue and damage tolerance, static strength up to failure



Maaximus Virtual World made real

MAAXIMUS Virtual and Physical Platforms will be developed in a fully synchronized manner, to ensure coherency between their specific and dependent achievements.

MAAXIMUS PARTNERS

AIRBUS | SIMULIA | Imperial College London | POLITECNICO DI MILANO

ALE | EADS | INASCO INTEGRATED AEROSPACE SCIENCES CORPORATION | QinetiQ

AleniaAeronautica Una Società Finmeccanica | CNS CACHAN | INSA LYON | RWTH AACHEN UNIVERSITY

ARTTIC INTERNATIONAL MANAGEMENT SERVICES | esi get it right™ | INSTITUTO SUPERIOR TÉCNICO | Samtech

BOMBARDIER | ETH Eidgenössische Technische Hochschule Zürich Swiss Federal Institute of Technology Zurich | GROUPE LATECOERE | SOGETI High Tech

CAROLO-WILHELMINA BRAUNSCHWEIG | eurocopter an EADS Company thinking without limits | Leibniz Universität Hannover | SONACA

Cenaero Excellence in Simulation Technologies for Aeronautics | FACC | Letov Letecká výroba Groupe Latecoere | swerea SICOMP

CIRA | Fatronik tecnalia | LMS ENGINEERING INNOVATION | TAI

CNIM | FOI | LTSM UNIVERSITY OF PATRAS | technology PARTNERS www.technologypartners.pl

DASSAULT AVIATION | Fundación Ingeniería Civil de Galicia | MSC Software | TU/e Technische Universiteit Eindhoven University of Technology

DASSAULT SYSTEMES | ISRAEL AEROSPACE INDUSTRIES LTD | HAI | TUHH POLYMER COMPOSITES

Ministère de la Défense | DGA AERONAUTICAL TESTS | IMA DRESDEN | NLR | UNIVERSITY of LIMERICK OLLSCOIL LUIMNIGH

DLR | imdea materials | ONERA THE FRENCH AEROSPACE LAB | University of Stuttgart Germany

www.maaximus.eu