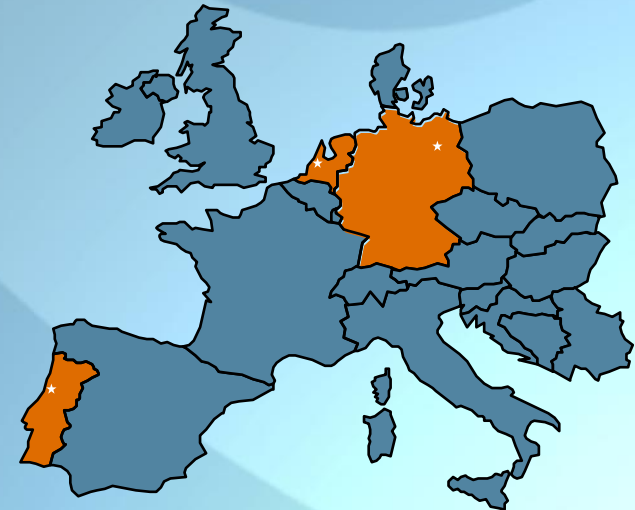


High Performance Engineering, Unleashed

Statement of Capabilities



making space a global endeavour



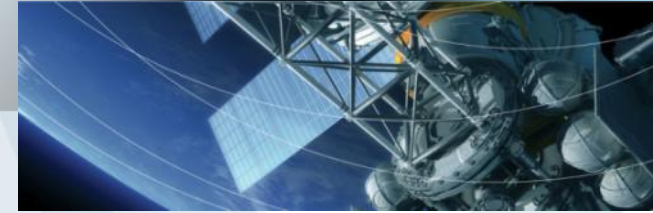
Award Winning Range of Advantages

Private venture headquartered in Portugal

A proven history of delivering excellence in highly demanding engineering projects

Working within the aerospace market since its inception, providing mechanical and systems expertise in projects with stringent technical requirements, delivering on time and on quality

With a network of supplier manufacturing facilities, labs and workshops based in Portugal, the company can provide world reference engineering services at extremely competitive prices



AS 9100
BUREAU VERITAS
Certification



Track Record

More than 10 years of intense technology development, R&D, and technology transfer

We offer a range of high value services to System Integrators, Research Institutions and SMEs worldwide

Our Mission

Providing mechanical and electronics engineering state of the art expertise

Offering turn-key subsystems, supplying the whole value-chain from requirements definition, CAD services, and modelling up to manufacturing and AIT

Nuclear



Aerospace



Science



Our Range of Services (1/2)

Conceptual Design

3D CAD Design Catia, SolidEdge

2D Drawings, built-to-print

Engineering

Thermal Analysis ESARAD/ESATAN, Star ccm+

Structural Analysis Patran / Nastran

CFD Star ccm+, COMSOL

Electronics VHDL, PCB design

Control MATLAB, Scilab

Materials R&D

Manufacturing

CAM Design

Precision CNC

Technology Transfer

Project Management

System Engineering and Product Design

Our Range of Services (2/2)

Thermal	Structural	Other services
Thermal architecture	FEM Analysis	CAD Catia, SolidEdge
Design and optimization	Thermo-elastic analysis	CFD Fluent
Packaging and thermal management	Design and optimization	CNC
Definition of requirements	Modeling of metals and composites	R&D
Cross tool model conversion	Multi-body dynamics	Cryogenic hardware enthalpy reservoirs
Nastran, ESARAD, ESATAN, ThermNV, TasVerter	Patran & Nastran, ANSYS	Thermal insulation aerogels, cork composites
		Thermal Tests

Specification

Design

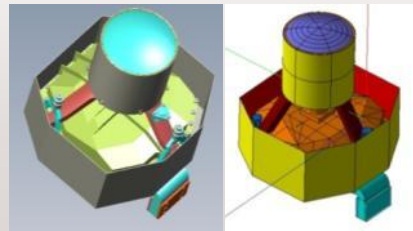
Prototyping, AIT

V&V

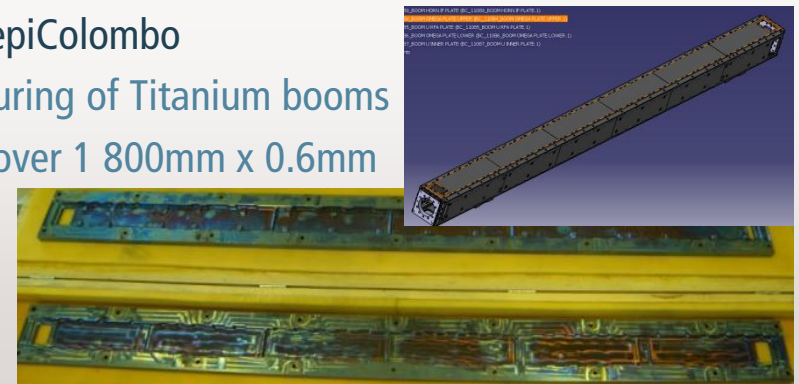
Case Studies

Mechanics

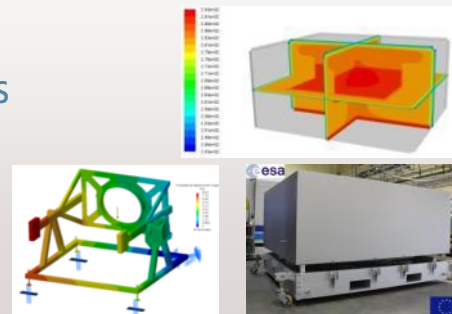
BepiColombo (MMO): BELA
Phase B, C+D Thermal Analysis
[Zeiss]



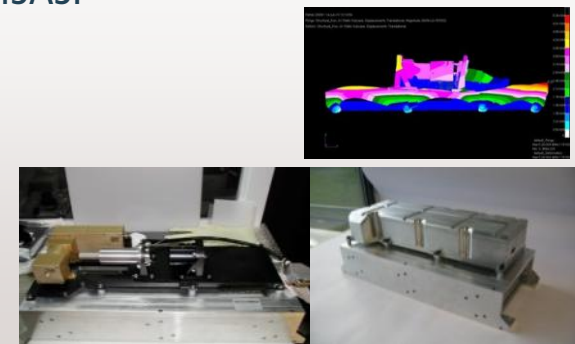
BOOM: BepiColombo
Manufacturing of Titanium booms
Precision over 1 800mm x 0.6mm
[SENER]



Sentinel 3: MGSE
Design
Thermal and Structural Analysis
Manufacturing, AIT
[Thales Alenia Space]



BepiColombo (MMO): MSASI
Thermal Analysis
Structural Analysis
Manufacturing
[JAXA / NEC]

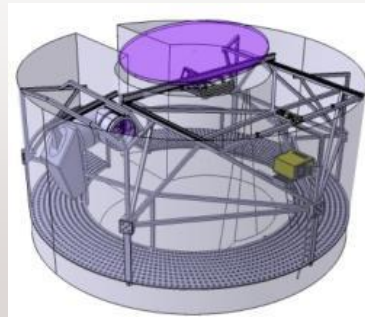


Case Studies

Systems & Control

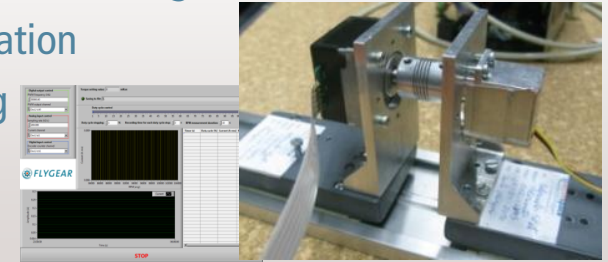
E-ELT: Adaptive Optical Calibration Unit

Mechanical design and analysis
Automation & Control
Accurate mirror attitude control
[ESO]



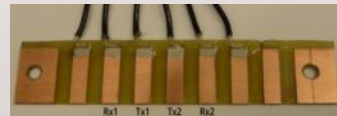
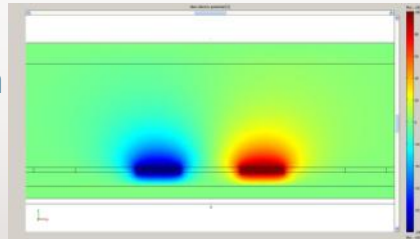
Flygear

Servo-actuator Architecture Design
Verification and Validation
Labview programming
DC motor control
[Eurostars/Eureka]



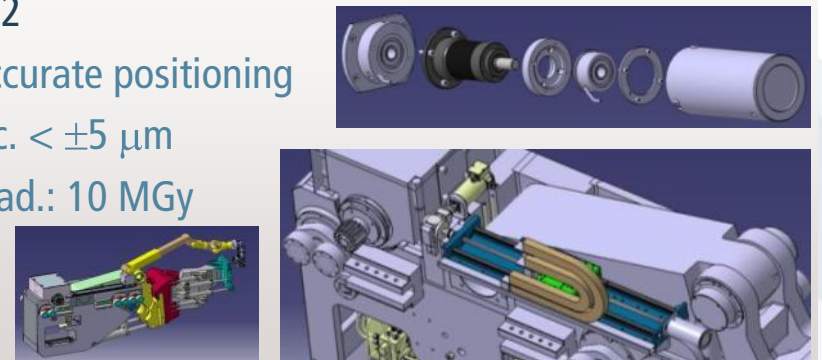
TPIP

Real time monitoring of TPS ablation
Numerical simulation
Prototype design and testing
[ESA]



ITER: DTP2

Design accurate positioning
Linear acc. $< \pm 5 \mu\text{m}$
Gamma rad.: 10 MGy
[EFDA]



Contact us

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