

ASTARTE

a d v a n c e d

s t r a t e g i e s

a s s i s t i n g

r e s e a r c h &

t e c h n o l o g y

50 years

industrial research

ASTARTE is a team of experts with long experience in various industrial fields

50 years

experience in academia

ASTARTE is a spin-off of the Department of Mechanical, Chemical, Material Engineering of the University of Cagliari, Italy



THE TEAM



Francesco Cambuli

CEO

Assistant professor of Turbomachinery at the University of Cagliari, Italy. Experimental and numerical fluid dynamics. Turbomachinery design, renewable energy, acoustical measurements, energy management.



Andrea Meleddu

Technical & Commercial Manager

Technical management, sales, communication and marketing. Project development: planning, coordination, customer care and follow-up. Technical background on structural integrity, fluid dynamics, experimental testing, materials.



Jan Ferino

Structural Analyst

Numerical methods for structural analysis, **FEA**. Stress-analysis, fatigue assessment, thermo-structural analysis, plastic deformations. Experimental testing. Coordinator of EU projects.



Marco Bertoli

Fluid Dynamics

Numerical and experimental analyses for fluid dynamics, **CFD**. Combustion, heat exchange, internal fluid dynamics, aerodynamics. Biomedical applications.



Giorgio Melis

FEA and CFD analyst

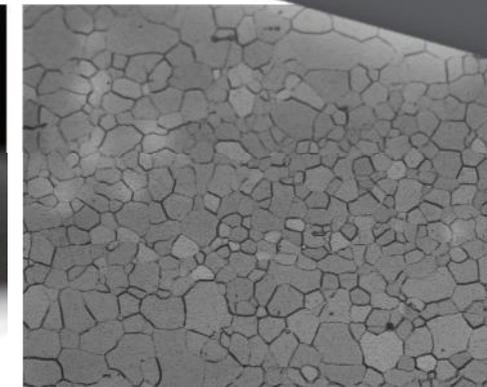
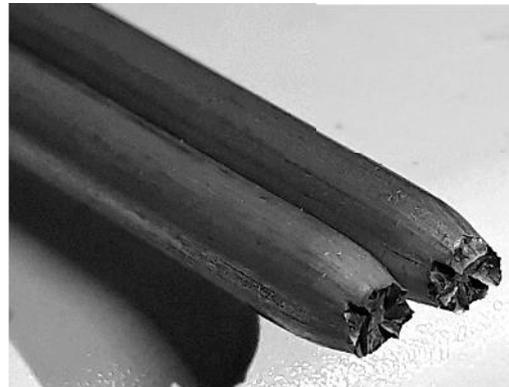
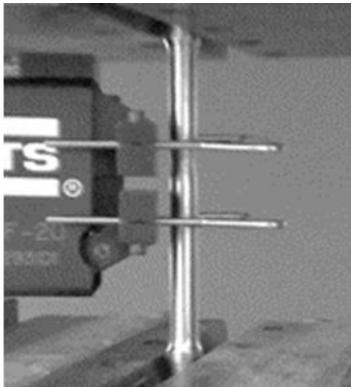
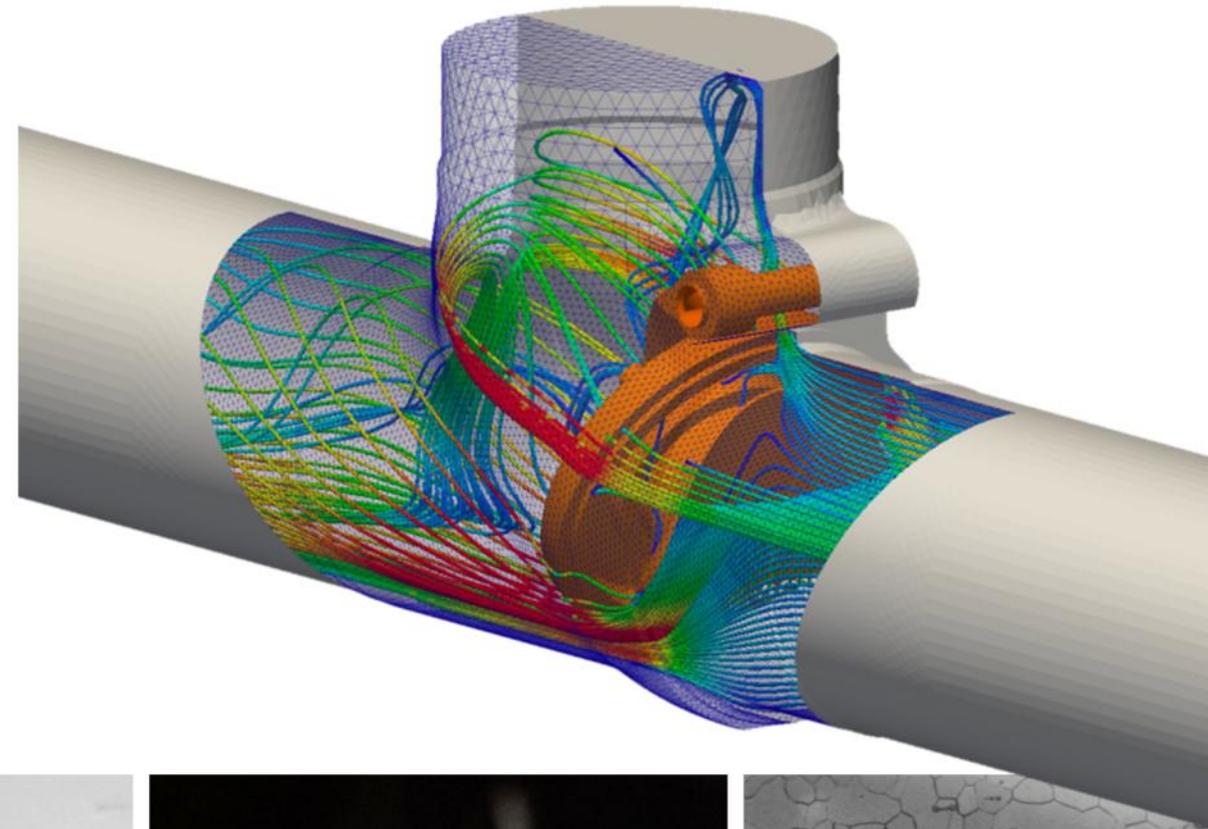
PhD in mechanical design with specialization in fluid dynamics. **CFD** applications for combustion, internal fluid dynamics, aerodynamics. **FEA** methods for structural analysis.

VIRTUAL LAB

«BOOST YOUR INNOVATION»

ASTARTE offers a **virtual lab** based on **CFD** and **FEA** technologies for **testing** and **validation**.

- **Virtual prototyping**
- **Simulation of processes**
- **Experimental testing**

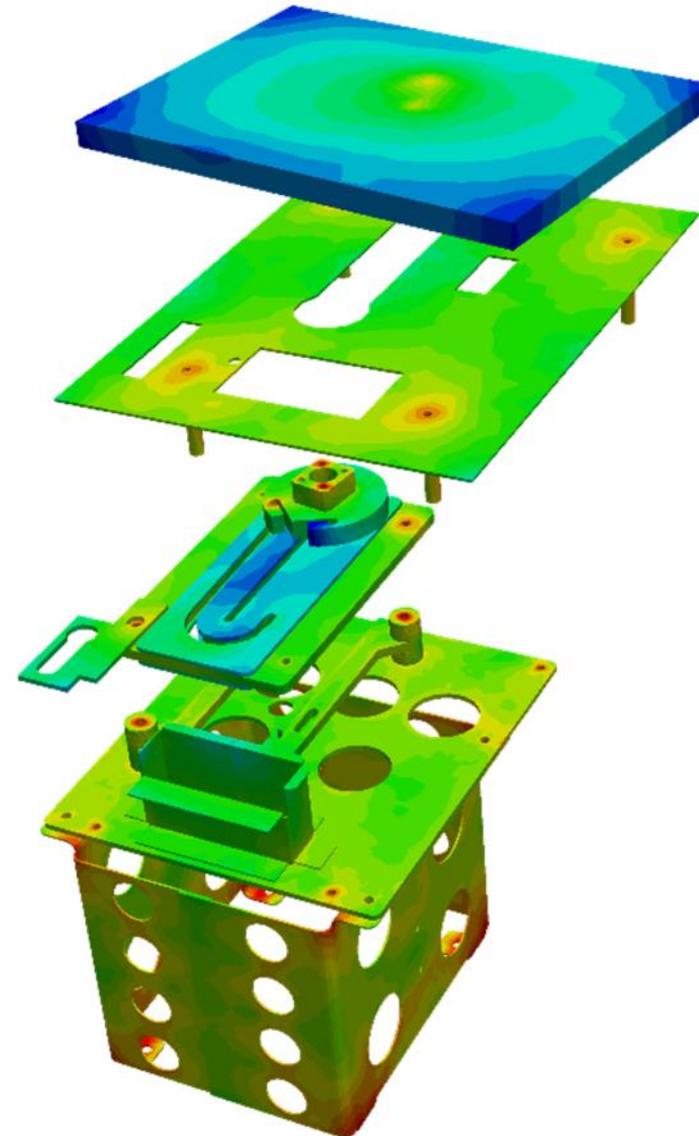


TECHNOLOGIES

FEA - Finite Element Analysis

State-of-the-art codes for structural analysis and development of *ad hoc* models to simulate each specific case.

- **stress-analysis**
- **fatigue-life assessment**
- **large deformations**
- **strain-based design**
- **dynamic loads**
- **thermo-structural analysis**
- **buckling**
- **modal analysis**
- **magnetic analysis**



 SIMULIA
ABAQUS

Also endorsed by:

The Boeing Company

Leonardo

FCA Fiat Chrysler Automobiles

Ds Automobiles

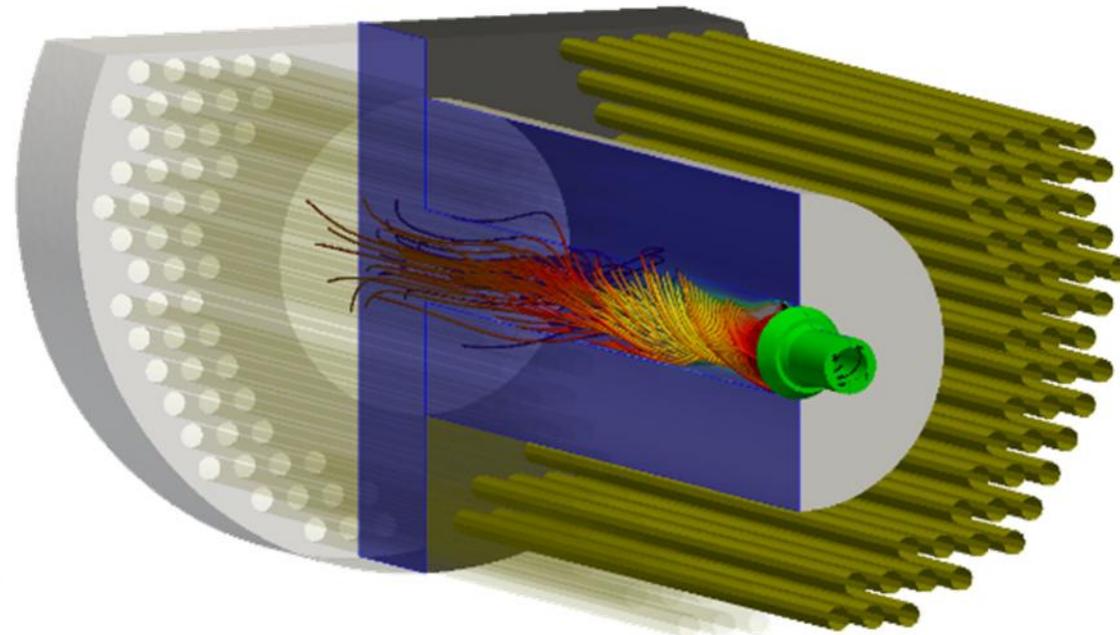
Luna Rossa Challenge

TECHNOLOGIES

CFD - Computational Fluid Dynamics

The recourse to numerical fluid dynamics codes:
a strategic option for the development of complex solutions.

- **aerodynamics**
- **fluid dynamics**
- **oil&gas**
- **turbomachines**
- **combustion**
- **heat exchange**
- **biomedical applications**



ANSYS[®]
FLUENT[®]

Also endorsed by:

Ferrari

Porsche

Dallara

Audi

General Electric

Saipem

TECHNOLOGIES

Laboratories

ASTARTE owns expertise for designing, performing and interpreting tests.

- mechanical characterization of materials: servo-hydraulic machines, servo-electric, drop-weight test
- turbomachinery lab
- acoustics laboratories
- laboratory for thermal exchange
- non-destructive investigations: X-rays, ultrasound, interferometric systems, DIC (Differential Interference Contrast)

In addition to this, ASTARTE cooperates with a network of national and international laboratories.



PROJECT MANAGEMENT

Customized solutions

Every customer brings its own specific needs, expectations and goals.

ASTARTE offers *ad hoc* strategies to develop your idea of innovation, together.



Interaction and flexibility

Our projects include milestones for meetings to check and discuss the project status with the customer. Let's plan together any rerouting intervention to assure the goal accomplishment.

Reliability

Reliable and verifiable results.

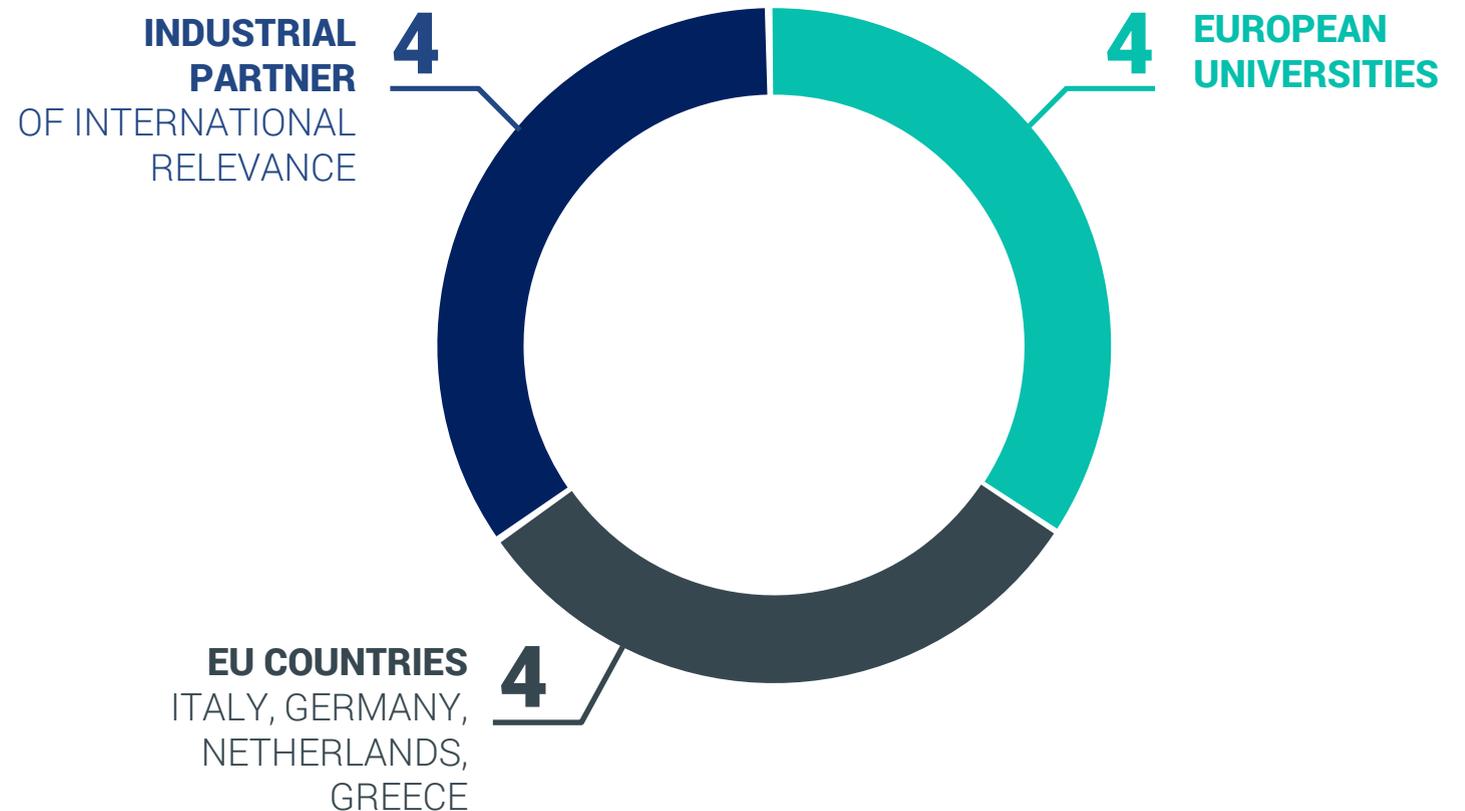
EU PROGRAMMES



RESEARCH FUND FOR COAL AND STEEL

2020-2023

ASTARTE is leader, promoter and **coordinator of a steel technology innovation project**, funded by the European Community



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