

Launchers  
Satellites  
Balloons  
Transversal competencies



TEMISTh is above all a team of **experts in thermal systems and advanced manufacturing** that supports industrial companies in the development of **tailored solution**:

- Design and optimization
- Advanced manufacturing
- Testing and qualification

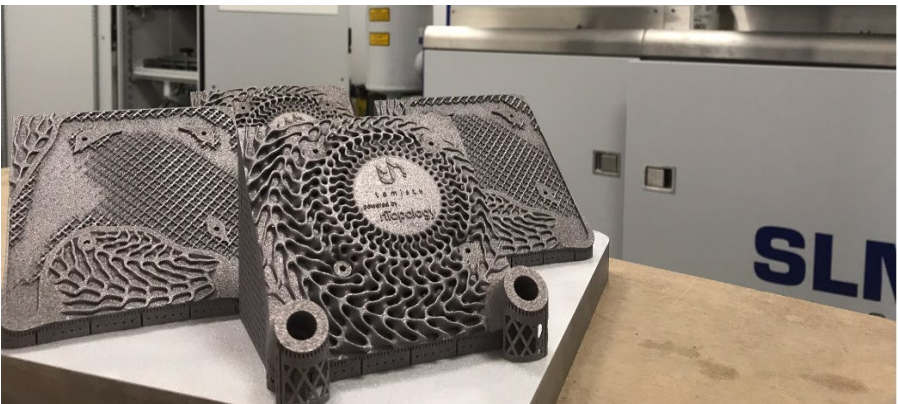
The company, based in Marignane (France), provides R&D services for aerospace, defense, automotive, electronics, tooling sectors.

## COMPETENCIES & CAPABILITIES

The team is composed of 8 engineers and 4 PhDs specialized in:

- Fluid and thermal simulations on HPC facilities (CFD)
- Design for Advanced Manufacturing (CAD, FEA)
- Topological and parametrical optimization
- Energy system design and optimization
- Performance testing

Based on TEAM Henri-Fabre technical center, we operate advanced manufacturing processes with a cluster of experts



# TEMISTH

## PRODUCTS & SERVICES

We develop innovative thermal systems from the idea to its proof of concepts and further with the first qualifying tests. We focus on thermal and fluid performances, system integration, mass reduction and manufacturability.

We mainly work on cold plate for electronic and electric converters, conformal cooling for molding, nozzle regenerative loop, heat recovery on exhaust gas, heat pipes etc.

Our expertise on numerical simulation allows to work on

- Boiling, Condensation & Phase Change Material
- Surface roughness model
- Combustion & Particle injection
- Super critical fluid
- CFD and mechanical Topological optimization

The manufacturing technology is selected during the design (Additive manufacturing, machining, Brazing, Friction stir welding, etc.).

Our in-house capabilities of test allow performing single heated channel and air-liquid heat exchangers characterization.

## MAJOR SPACE PROJECTS & REFERENCES

We made several confidential R&T activities for ESA, CNES, Ariane Group, Thales Alenia Space.

Between others, we won a call for tender for ESA. During this project we have developed and prequalified a cold plate for the thermal management of a human module for ESA.

We ensured sizing, design, CFD and mechanical simulations, project management for manufacturing and experimental tests (performance, leakage detection, welding control by IR camera, burst pressure, vibration).

## POINT OF CONTACT

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**TURNOVER** 0.6 M€

**WORK FORCE** 13 employees

**SPACE TURNOVER** 0.1 M€

**SPACE WORK FORCE** 10 employees