

Orbital systems  
 Launchers  
 Satellites  
 Transversal competencies



Established in 1992, MEDYSYS is an engineering company specialized in mechanical, thermal and multiphysics FEA and analytical modeling. MEDYSYS is expert in simulation, design and optimization of mechanical systems.

Based on these fundamental skills, our business offering has been built along three complementary axis:

1. Computation and Simulation for industry
2. Development of specific scientific software or add-on to general FEA codes
3. Research and development

## COMPETENCIES & CAPABILITIES

The main space competencies and capabilities of Medysys are:

- Low frequency vibration simulation Launcher
- Thermal and thermomechanical simulation
- Software development and methodologies (specific calculation tool)
- Multi-body dynamic simulation
- Composite material analysis tool
- Aerology data analysis



# MEDYSYS

## PRODUCTS & SERVICES

### Independent SME serving the industry for 28 years:

- ✓ Simulation & Computation
- ✓ Software Development
- ✓ Innovation and R&D

MEDYSYS is also an innovative company with R&D certification for State credit (CIR and CII) and already leads innovation action on its own.

High-contrast micro-structured materials have been studied for spatial application last year over a R&T project with CNES. We demonstrated the theoretical acoustic behaviour of these materials and proved it by FE simulation

Our mechanical engineers can work in MEDYSYS design offices or as consultants on our customer site.

## MAJOR SPACE PROJECTS & REFERENCES

MEDYSYS is a CNES supplier and participates in the framework contract on the structural dynamics activities.

Finite element calculations (ex: parametric vibration calculations on launchers), Development of scientific software (ex: improvement of structural modeling tools 3D for dynamics), Analysis of experimental data and statistical processing (ex: analyzes of natural environment data from the CSG area, notably wind databases for the CALLISTO project )

MEDYSYS has also worked on numerical simulation studies for the space industry for companies such as: SODERN, AIRLIQUIDE, REEL; Here are some examples of topics covered:

Mechanical and thermal studies of the netlander seismometer,  
Dimensioning of equipment related to the handling of Ariane 6 sub-assemblies ...

## POINT OF CONTACT

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**TURNOVER** 3 M€

**WORK FORCE** 40

**SPACE TURNOVER** 0,8 M€

**SPACE WORK FORCE** 8