

Orbital systems
 Launchers
 Satellites
 Ground segments
 Transversal competencies



ALLEN

ALLEN supports its customers' development strategies in the areas of innovation, R&D and information systems.

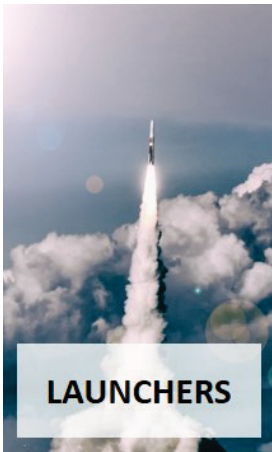
Created 30 years ago and based in more than 25 countries, the Group has established itself as a world leader in Engineering and Technology Consulting.

We are a key actor partner in the Aeronautics & Space, Defence & Naval, Security, Automotive, Rail, Energy, Life Sciences, Finance, Retail, Telecommunications and Services sectors.

COMPETENCIES & CAPABILITIES

In the Space sector, ALLEN deploys technical skills to support its customers on their most innovative projects with high added value:

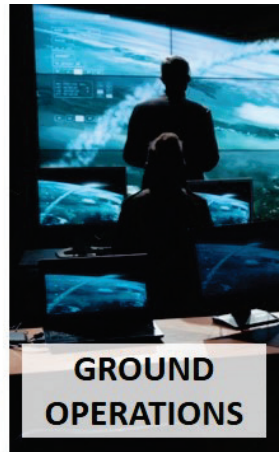
- **Multi-specialists:** **Flight Mechanics/AOCS**, **Mechanical Structure**, **Embedded System** (electronics and software) and **Ground Segment** (infrastructure deployment, IVV).
- **Digital:** **IT & Networks** (Agile, Big Data, AI, Cloud, Cybersecurity, UX/UI design...) / **Ground Segment applications development**.
- **Expertise:** in **AIT** (Assembly, Integration & Test), **Electrical and Avionics** Architecture Design, Simulation and Validation of **Optical Instruments**.



LAUNCHERS



SATELLITES



GROUND OPERATIONS

ALTEN

PRODUCTS & SERVICES

ALTEN's services are deployed across three business lines:

- **Space launchers:** Mechanical design & analysis, Thermal Models, Quality, Trajectory and Orbit control, Aerodynamic calculation, Flight Path Monitoring
- **Satellites:** Global Assembly-Integration-Tests services, Avionics system design & validation, On-Board software & electronics, Instruments (optical, RF, science), Mechanical design/analysis/assembly, Thermal analysis, Thermal Protection Systems design, Attitude & Orbit Control Systems validation, Propulsion validation
- **Ground operations:** System & network administration, Software development & validation, Infrastructure design, IVV, Inboard Systems.

Our major Customers: CNES, Airbus D&S, Thales Alenia Space, CLS, ULA, CRISA, Oneweb Satellite...

MAJOR SPACE PROJECTS & REFERENCES

- **The European launcher Ariane 6:** as a historical partner, ALTEN actively participates in their development in various fields (structure, thermal, flight mechanical engineering, etc.)
- **Satellites' AIT:** ALTEN capitalizes on more than 20 years of know-how in preparations for the assembly, validation tests and final integration of various satellites for CNES and other industrial customers as TARANIS, SVOM, METOP-SG, JUICE, EUTELSAT10B, etc.
- **Mini-satellites:** ALTEN has been involved in the Structure and Payload design of a constellation of 900 mini-satellites in a low orbit with ONEWEB.
- **Image processing chain engineering:** ALTEN is involved in the study, development and maintenance of the complete image processing chains for the satellite observation systems of a major player in the space sector (IASING, SUPERCAM, EUCLID, OLCI, MICROCARB, OTOS, etc.)

POINT OF CONTACT

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TURNOVER: 2.6 billion euros

WORK FORCE: 37,200 employees

SPACE TURNOVER: 55 million euros

SPACE WORK FORCE: 750 Space Engineers in 10 countries