

Orbital systems  
 Launchers  
 Satellites  
 Ground segments  
 Transversal competencies



For more than 40 years, CS Group has been successfully delivering turnkey systems and providing engineering services for space and its applications markets.

With a space workforce of 430 engineers gathering advanced and unique skills in both information technologies and space programs lifecycle, CS Group is a major and proven long-term trusted partner of space and defense agencies, satellite prime contractors and operators, and space application actors.

## COMPETENCIES & CAPABILITIES

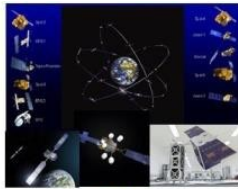
CS Group is recognized as a prime contractor for space software systems. CS Group has a unique set of skills covering all domains of software within space systems from ground stations to space applications:

- Monitoring and Control & Space Flight Dynamics,
- Satellite & mission simulation,
- Electrical Ground Support Equipment & On board software,
- Mission planning & payload management,
- Image & science data processing,
- Geospatial data management & IoT mobile computing,
- Big data technologies & distributed cloud computing,
- Space Surveillance & Intelligence.



ARIANE, SOYOUZ, VEGA  
 ATV  
 Space Surveillance

### Access to space



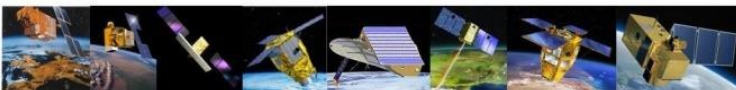
GALILEO  
 SALP/SSALTO DORIS  
 COSPAS-SARSAT/MEOSAR  
 NEOSAT - NANOSAT

### Navigation & Telecom



MYRIADE (Demeter, Parasol, Essaim,  
 Picard, Elisa, Taranis, Microscope, ...)  
 ROSETTA, GAIA, InSight ...

### Science



SPOT HELIOS CSM PLEIADES SAR LUPE VENµS CSO SENTINEL 2 & 3

### Earth Observation

# CS GROUP

## PRODUCTS & SERVICES

CS Group delivers ground segment end-to-end solutions integrating added-value and qualified components. CS SI promotes open source software:

- OREKIT ([www.orekit.org](http://www.orekit.org)) for flight dynamics,
- RUGGED ([www.orekit.org/rugged](http://www.orekit.org/rugged)) for ortho-rectifications,
- OTB ([www.orfeo-toolbox.org](http://www.orfeo-toolbox.org)) for image processing,
- VIGILO ([www.vigilo-nms.org](http://www.vigilo-nms.org)) for network monitoring,
- DISCO for space data engineering.

CS Group proposes innovative products for ground segment operations:

- ORAAS (<https://www.orekit.space/>): Orekit as A Service,
- CS NANO: new generation nanosatellites & constellations ground segment,
- J-SMIS operational space surveillance Intelligence system.

CS Group also provides Big Data cloud agnostic solutions “as a Service”:

- SAFESCALE: a generic multi cloud management platform,
- GEOSTORM: Generic Online GeoSpatial data access, with catalog Harvesting and OGC Compliant.

CS Group provides high level consultancy and expertise for mission analysis, systems architecture, qualification and operations.

## MAJOR SPACE PROJECTS & REFERENCES

- COPERNICUS/SENTINEL 2 & 3: critical image processing, Toolboxes, mission performance, Research and User Support,
- CSO/CERES: MCS prototyping and support, OREKIT as the FDS kernel,
- mission simulation and planning system,
- PLEIADES: Secure integration, Mission Programming,
- ROSETTA/PHILAE and MASCOT: Interplanetary mission analysis,
- EGNOS V3: Prediction Chain Facility, Monitoring & Control Interface Facility,
- GALILEO: Support for LEOP both at CNES and at ESOC,
- TBS: Space Surveillance & Tracking System for French Defense
- Operation Center,
- ARIANE: telemetry processing and expertise,
- ANGELS: nanosatellite ground segment.

## POINT OF CONTACT

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**TURNOVER** > €200m

**WORK FORCE** 2080

**SPACE TURNOVER** €52,25m

**SPACE WORK FORCE** 430