

# SPACE in OCCITANIE

Invest in Occitanie to develop  
your business in the space industry!





# Occitanie leads the ways

## Space applications tailored to user needs:

Solutions for communicating, travelling, observing, forecasting, managing resources, and protecting the planet, etc. at: Airbus Defence and Space - Intelligence, CLS, Elastic Map, FFLY4U, Gisaïa, Harris, Kinéis, Magellium, Mercator Ocean, Metsafe, MobiGIS, Noveltis, Pixstart, Syntony, TerraNis, Thales Alenia Space, Murmuration, The FabSpace...

## They contribute to sector development



- **ANITI** (Artificial and Natural Intelligence Toulouse Institute) is developing a new generation of hybrid artificial intelligence

for critical systems and environments

- **EKITIA**, this regional initiative brings universities, research centres, companies, and business clusters together to promote data sharing and the creation of a data cluster within an ethical framework.

- **Open IG** (Occitanie Pyrénées en Intelligence Géomatique), 170 members, shared regional platform for geographic information.



- **Cybersécurité** : more than 200 stakeholders, including renowned companies committed to space: Thales

SIX, Apsys, Airbus Cybersécurité, Sopra Steria, Scalian... A Regional Cybersecurity Center: Cyber'OCC.



## They bring the space sector to life

Incubators and accelerators serve the ecosystem (Esa Bic, nubbo, District, Booster). Galaxie club unites the region's various stakeholders. Cité de l'Espace, a showcase for space, is a major attraction for the region.

# The future of space is taking shape in Occitanie

- **CLIMATE CHANGE:** The Space Climate Observatory (SCO), a global initiative to study the impacts of climate change

- **INTERNET OF THINGS (IOT) IN SPACE:** Occitanie offers a comprehensive range of services within the IoT Valley (e.g. Kineis, IoT everywhere, the first European constellation of 25 nanosatellites dedicated to IoT).

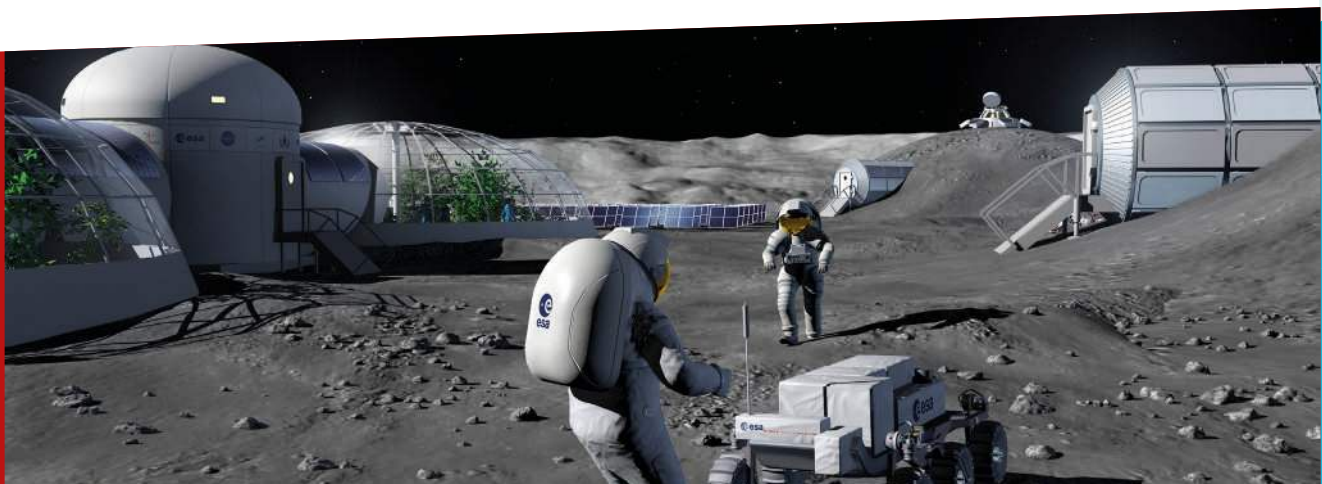
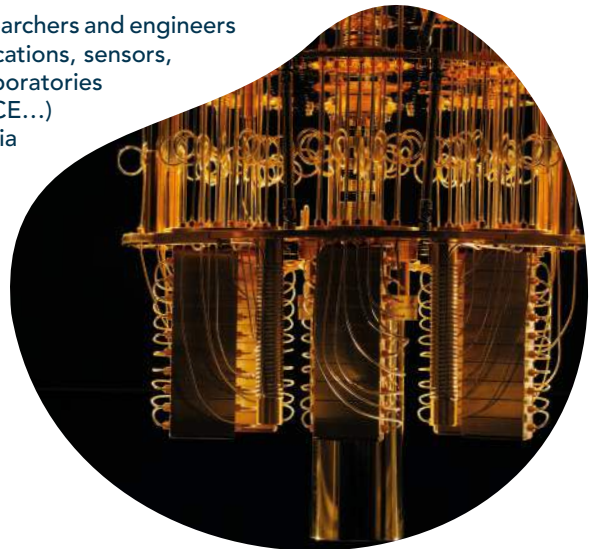
- **DEFENCE AND SECURITY:** Occitanie is at the heart of future defence challenges with the arrival of the Space Command and the NATO Space Centre of Excellence.

- **SPACE EXPLORATION** Occitanie plays a significant role in planetary exploration, in sending humans back to the Moon and, ultimately, to Mars:

TechTheMoon, the world's first incubator dedicated to the lunar ecosystem is in Occitanie.

Spaceship FR, a think tank and technology accelerator for a future lunar base.

- **QUANTUM TECHNOLOGIES:** Close to 200 researchers and engineers are developing the calculations, secure communications, sensors, metrology, and quantum simulation in laboratories (CEMES, CERFACS, IRIT, LAAS-CNRS, LAPLACE...) and companies (IBM, ATOS, Airbus, Thales Alenia Space, CNES, Timelink Microsystems...).



# The Occitanie region Europe's leading space industry

## A complete worldwide network in which to grow

- From design to integration, infrastructures to applications and uses, start-ups to large groups
- The birthplace of Globalstar, Iridium, Oneweb, Kineis, Lightspeed...
- A prominent role in satellites of all sizes: from just a few kilos to several tonnes (nanosat, smallsat, bigsat)



- Aerospace Valley, a global competitiveness cluster for the aerospace industry, serving the Aeronautics, Space, and UAV sectors

## Occitanie

### the beating heart of the european space industry



**400**  
companies including  
*30 pure players*



**14,000**  
jobs dedicated to  
space activities only



**40%\***  
of all space sector  
jobs in France



**25%**  
in Europe



**19,000**  
students



**9,000**  
researchers  
in aerospace

\*Source : INSEE (National Statistics/CNES)



# A complete industrial sector, a whole

## From manufacturers to start-up

### THE MAJOR CNES SITE AND 2 INFRASTRUCTURE CONTRACTORS:

- **The CNES Toulouse Space Centre** designs, develops, produces, places in orbit, controls, and operates the vehicles and complete space systems for which CNES is responsible.
- **Airbus Defence and Space**, a world leader in satellites and constellations for Earth observation, telecommunications, and related services.
- **Thales Alenia Space**, a world leader, operates and delivers satellite-based systems and constellations for telecommunications, navigation, earth observation, exploration, science and orbital infrastructures.

### INDUSTRIALISTS, OPERATIONAL SERVICE PROVIDERS:

Airbus Defence and Space, CLS Group, ESSP, Météo France, Telespazio

**NUMEROUS ENGINEERING FIRMS:** Akka Technologies, Alten, Cap Gemini, CS Group, Expleo, Scalian, Sogclair Aerospace, Sopra...

## A concentration of businesses

Agenium, Aiko, Airbus Defence and Space, Anywaves, Atmosphere, Callisto, CLS Group, Comat Aerospace, Dactem Développement, ECA Group, Eremis, ExoTrail, Hemeria, Kineis, Loft Orbital, M3 Systems, Magellium, Map, Mecano ID, MEDES, Mersten Boostec, Microtec, Noveltis, Pangea Aerospace, Prométhée, Steel Electronique, Soterem, Syntony, Tekever, Telespazio, TerraNIS, Thales Alenia Space, Trad, Spacebel, Timelink, U-space, Vortex. IO, Weatherforce, waltR...

## Companies that have chosen Occitanie

**AS FRANCE'S LEADING REGION FOR INNOVATION, OCCITANIE IS ATTRACTING NEW COMPANIES:** the Air Force Space Command, the NATO Centre of Excellence dedicated to space, Exotrail, Loft Orbital (USA), etc.

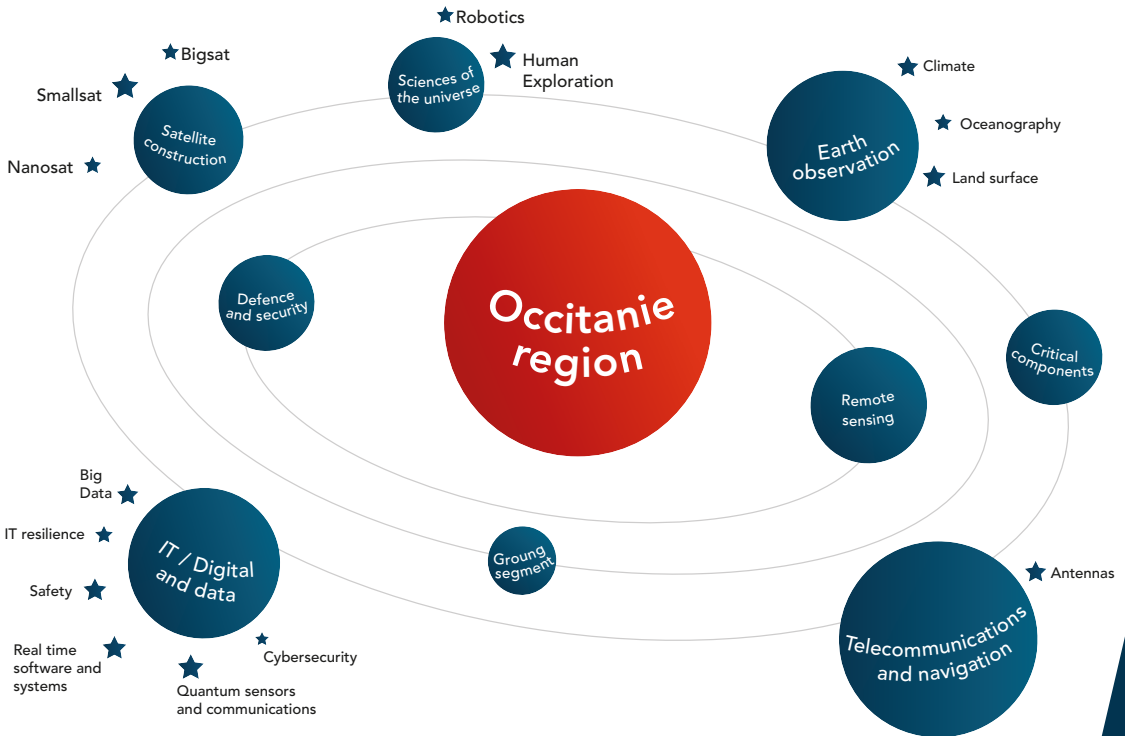


*The Newspace Factory is a cluster of innovating SMEs offering solutions adapted to the new space markets*



# le ecosystem in one region

A unique constellation of skills in Europe



## World-Class skills and infrastructure:

Space environment test facilities and clean rooms (especially for integration)  
- e.g. Airbus Defence and Space, Thales Alenia Space, etc.

## Unique skills and resources in high performance computing

at CERFACS, CINES, Universities, Météo France, etc.





# A World-Class academic and university environment

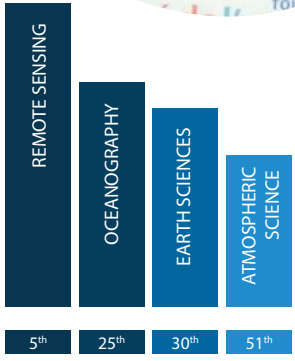
## Education

- **ISAE-SUPAERO and ENAC:** Two top graduate schools 2 out of 3 French engineering schools (French Grandes Ecoles) dedicated to Aerospace are in Occitanie along with world-renowned engineering and management schools (*ENSEEIH, ENIT, INSA, The French Met school - only in Toulouse, Ecoles des Mines d'Albi et d'Alès, ICAM, TBE, TBS, etc.*)
- **THE FEDERAL UNIVERSITIES OF TOULOUSE AND MONTPELLIER,** including University Space Centres and the Van Hallen Foundation
- **LE LYCÉE PIERRE-PAUL RIQUET,** France's first Space High School
- **SIRIUS,** the first international research chair dedicated to the law and management of space activities



## Research

- **ANITI:** a major centre for artificial intelligence
- **CNRM:** the national centre for meteorological research in France
- **Data Terra Occitanie:** research infrastructure dedicated to Earth observation data
- **IRT:** World Class research institute in Aeronautics, Space and Embedded Systems
- **Mercator Ocean:** Ocean forecast expert, operating Copernicus Marine Service, Intergovernmental organization in charge of the world's 1<sup>st</sup> digital ocean
- **Midi-Pyrénées Observatory (CESBIO - Centre for the Study of the Biosphere from Space), GET - Géosciences Environnement Toulouse, IRAP - Institut de Recherche en Astrophysique et Planétologie, LEGOS - Laboratoire d'études en géophysique et océanographie spatiales, Laero - Laboratoire d'Aérodynamique**
- **ONERA:** the French Aerospace Lab
- **SAFIRE:** international leader in airborne measurements
- **TeSA:** a cooperative research lab in telecommunications for space and aeronautics



**TOULOUSE AND THE OCCITANIE REGION are regularly in the top 50 of the Shanghai Ranking**

## They're on Mars *Made in Occitanie, the supercam on the planet Mars*



- Alten, Assystem, Comat, GIT, Hirex, Informarty, Map, Mecano ID, Microtec, Nexeya, Steel Electronique, IRAP, GIS-OMP, ISAE-Supaero, IMFT, CNES



As the Investment Trade and Innovation Agency of the Occitanie / Pyrénées Méditerranée region we offer free consulting for your corporate location or partnership projects in Southern France. For 25 years we have been assisting space companies wishing to set up in Occitanie.

**Contact us, let's discuss your development plans!**

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