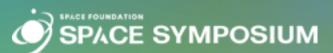


# EXHIBITORS CATALOGUE FRENCH DELEGATION

Booth 403 South Hall



April 8-11 2024 Colorado springs









## SPACE SYMPOSIUM

IBREN

## MONDAY 8 APRIL 2024 FROM 8.30 PM

IN THE LAKE TERRACE DINING ROOM OF THE BROADMOOR HOTEL

#### ON THE PROGRAM

- Fireworks over the lake
- French Touch cocktail reception
- Networking with members of the French space ecosystem

## #FRENCHTOUCHEVENING 🛛 🖄 🖮 🞯









"Whether long-established or emerging, our companies stand at the forefront of innovation in all areas of space."

Dr. Philippe BAPTISTE

Spanning civil, military, and commercial domains, France has been playing a pivotal role since the dawn of the space era. Our endeavors have propelled groundbreaking discoveries and pushed the boundaries of human achievement alongside our partners. As one of the world's few historic space agencies, CNES has paved the way for the development of French expertise, fueling a blooming ecosystem through its space programs, in particular the Connect by CNES initiative, and ambitious investments like the France 2030 plan.

Today, I am proud to present this expertise cultivated by French companies in space, sustained by the strong support of CNES and its partners from French Space Command and public institutions.

Whether long-established or emerging, our companies stand at the forefront of innovation in all areas of space, notably in satellite manufacturing, launchers, telecommunications, cybersecurity, Earth observation and space transportation. They successfully compete and excel on both sides of the Atlantic and in the global market, enabling scientific achievements with our partners and helping to guarantee national and European security through their technologies.

In this fast-moving ecosystem, cooperation remains a strong pillar on which to build our future, as more and more challenges call for a joint response. Our agencies and companies are eager to drive new initiatives, develop future innovations and move forward together, tackling climate change, exploring the universe, supporting national security efforts, and guaranteeing a sustainable human presence on the Moon.

It is with great pleasure that I invite you to discover the panoply of French expertise during this 39th Space Symposium. This brochure showcases the diversity, quality, and expertise of French space players, as well as the partnership and collaboration opportunities they offer.



Dr. Philippe BAPTISTE Chairman and CEO of CNES

#### **SOUTH HALL PLAN**

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## NETWORKING EVENTS PROGRAM ON THE BOOTH 403 FRENCH DELEGATION

Booth 403 South Hall

## SPACE SYMPOSIUM

April 8-11 2024 Colorado springs MORE INFO

#### Networking events Program on the Booth 403

Tuesday 9th April • 1-2 PM

#### HOW TO LEVERAGE ON-ORBIT MOBILITY Café français

Tuesday 9<sup>th</sup> April • 4–6 PM

#### MEET THE FRENCH SPACE INDUSTRY

Networking cocktail Speakers : Dr. Philippe Baptiste Chairman and CEO of CNES and MG Philippe Adam French Space Commander

Wednesday 10<sup>th</sup> April • 9–10 AM

HOW OPTICAL TECHNOLOGIES DISRUPT SPACE Café Croissants

#### ----- Wednesday 10<sup>th</sup> April • 10:30-11:30 AM

SPACE AND CYBER

Café Croissants

— Thursday 11<sup>th</sup> April • 9–10 AM

#### SURVEILLANCE & ACTIVE DEFENSE, NEW CHALLENGES IN SPACE : A FRENCH PERSPECTIVE

Café Croissants





Jean-Marc ASTORG

I am particularly pleased that CNES is taking part for the second year running in the Space Symposium, along with its public and private partners," said Jean Marc Astorg, CNES's Director of Strategy. "More than 30 French space stakeholders will be in attendance on the "France booth", including several start-ups supported through our Connect by CNES programme. This is a key initiative driving development of New Space in France, and is accompanying and federating the space user community in Europe and around the world. Through our involvement at this 39th Space Symposium, we are showcasing our ecosystem on the international stage.

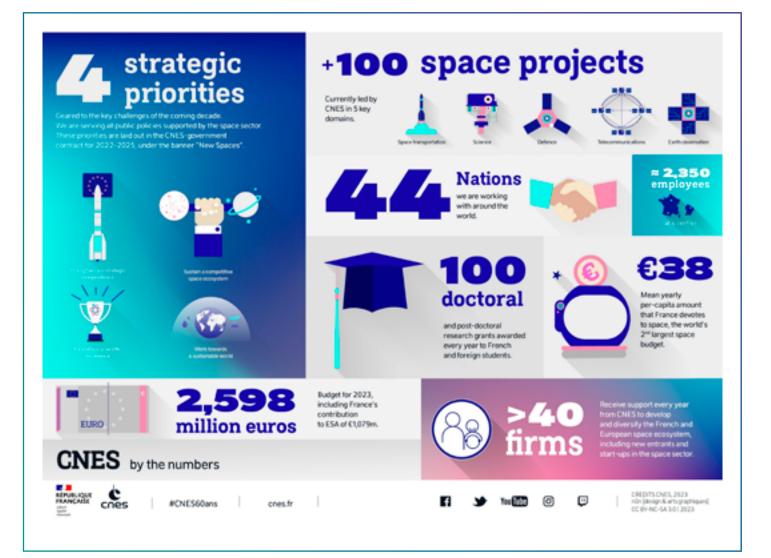
www.cnes.fr/en



CNES is the government agency responsible for shaping France's space policy and implementing it in Europe. Its task is to conceive and orbit satellites, invent the space systems of the future and nurture new services to aid us in our daily lives. Founded in 1961, it is the initiator of major space projects, launch vehicles and satellites, and the partner of choice for industry, supporting exports and fuelling innovation. CNES comprises some 2,400 men and women with a passion for space working to open up new and infinite fields of applications in five core areas of focus: Ariane, science, Earth observation, telecommunications and defence.CNES is a key player driving technology research, economic development and industrial policy for the nation. It also fosters scientific collaborations and has forged numerous international partnerships.

France, represented by CNES, is one of the leading contributors to the European Space Agency (ESA). Sovereignty, scientific cooperation, climate science and economic competitiveness form the four strategic pillars of France's space policy.

#### **KEY NUMBERS**



#### HELPING SUSTAIN THE SPACE ECOSYSTEM'S COMPETITIVE EDGE

CNES is boosting the French space industry's competitiveness, helping the ecosystem's stakeholders to diversify not only through development of disruptive technologies but also by establishing new partnership and co-funding models with industry. We are thus supporting the transition from an infrastructure-based economy to a data-driven model, as we seek to advance new applications and services.

## SPACE IS KEY TO OUR STRATEGIC INDEPENDENCE

To sustain France's national sovereignty, CNES is engaged in the Ariane 6 programme, helping industry and entrepreneurs to conceive the low-cost reusable launchers of the future. We are supporting the rampup of military space capabilities and playing a prime role in acquisition and processing of satellite data.

#### PROMOTING FRENCH SPACE SCIENCE BEYOND OUR BORDERS

Pursuing our remit to serve science, CNES is leading ambitious missions and extending French excellence in Europe and worldwide through its efforts to sustain space science research and a vigorous cooperation policy.

#### COMMITTED TO A SUSTAINABLE WORLD

And in a world increasingly prone to climate disruptions, CNES is making climate science a top operational priority and consolidating its commitments, notably through its Earth-observation programmes and the Space Climate Observatory (SCO). We are also leading by example in reducing our environmental footprint and being a socially responsible employer.



France published its Defense Space Strategy (DSS) in 2019, and concomitantly stood up the French Space Command. As the DSS rightly identifies, tackling the many challenges posed by geopolitical competition in space involves developing and procuring state-of-the-art capabilities. To maintain an operational and technological edge, the French Space Command can count on France's world-class private sector, which benefits from decades of expertise, unique industrial strengths, and the creativity of its New Space ecosystem. Space is hard, and partnerships are crucial. May the 39th Space Symposium be a living testimony to this collaborative spirit!





#### FRENCH SPACE COMMAND

Created in september 2019, the French Space Command is the bridgehead of France's Space Defence Strategy. Under the dual authority of the French Chief of Defence Staff and the Chief of Staff of the French Air and Space Force, the French Space Command protects and defends French assets and interests in orbit. Responsible for conducting France's military operations, the French Space Command plays a key role in the expansion of the space defence sector in coordination with all the organizations concerned, in particular the French Space Agency (CNES).

Defence | Government





- Receiving space communications
- Space mechanism
- Software development and integration
- Electronics and micro-systems
- Positioning solutions
- Radiation effects in space



www.newspace-factory.com

## **NEW SPACE FACTORY**

Newspace Factory by Aerospace Valley: we are a group of French SMEs with complementary skills and extensive experience in the space sector, with the aim of offering a complete, flexible and easily accessible portfolio of solutions geared towards international markets.

#### **ABOUT US**

Newspace Factory by Aerospace Valley comprises 11 talented French SMEs fired by a strong desire to drive development of the New Space market. Drawing on a French R&D heritage of more than 50 years, they offer agile industrial capabilities and products. Combining unique industrial capabilities to deliver high volumes on time and at an affordable cost, their catalogue spans the full value chain from the ground to orbit.

#### **OUR OFFER**

6 of our SMEs are present at the 39th Space Symposium:

- Callisto "receiving space
- communications";
- Comat "space mechanism";
- CS Group "software development and integration";

#### **COMPETITIVE EDGE**

Newspace Factory offers easy and direct access to the industrial supply chain, delivering a service without borders through a single on-line portal. With its

- EREMS "electronics and micro-systems,
- micro-systems, • Syntony "positioning solutions";
- TRAD "expert in radiation effects in space.

11 Space Enablers, you are getting the very best of French space technology and experience.

#### **MEMBER COMPANIES OF NEW SPACE FACTORY**





Catalina RODRIGUEZ DEPUTY DIRECTOR FOR SPACE +33 6 76 62 91 75

rodriguez@aerospace-valley.com



- Satellite solutions
- Mission control
- Manufacturing
- Propulsion, launchers
- International development



www.businessfrance.fr/en/home



#### **Benjamin BEN SOUSSAN**

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## **BUSINESS FRANCE**

Business France, the national trade agency supporting the international development of the French economy, brings a delegation of some of the most innovative French New-Space startups and small businesses to the Space Symposium gathering 17 companies.

#### **ABOUT US**

From mission design and management to satellite propulsion systems and next-generation launchers, 17 promising companies are looking for new business

#### **COMPETITIVE EDGE**

## French delegation of the French Space Days:

Satellite solutions:

- Cedrat Technologies: Customized, compact, precise mechatronic products
- Exens Solutions: Radiofrequency and microwaves services
- SBG Systems: Miniature to high-end inertial navigation systems
- ThrustMe: Smallsat iodine propulsion
   system
- U-Space: Next-gen nanosat manufacturer

#### **Mission control:**

- Anywaves: Advanced antennas for satellite constellations and launchers
- Astralink: Mission management for nano/microsatellite operators
- Coreod Space: AI and VR mental health protocols to assist astronauts
- LeanSpace: Cloud-native satellite control and flight dynamics systems
- Look Up Space: Space surveillance
   radar network

and investment opportunities with American partners to continue to grow and expand their operations into the US Aerospace and Defense (A&D) market.

#### Manufacturing:

- Ateq: Advanced leak testing solutions
- Enersens: Silica aerogel for superior insulation
- Soditech: Test wiring harnesses for instruments, vehicules or platforms
- Somos ITW: High-precision surfacing and diamond wire slicing
- Watt & Well: High-end electronics for harsh environments

#### Propulsion, launchers:

- CT Engineering: Launcher systems, debris and ground control optimization
- HyPr Space: Next-gen hybrid rocket engine

For further information please scan the QR Code above or <u>click here</u>.

#### FRENCH SPACE DAYS DELEGATION - MEET US IN LA ON APRIL 11&12!





Scan for further detail on the French Delegation!



Airbus, Cailabs, DLR, SSC, CNES

#### **APPLICATION SECTORS**

- Direct to Earth Laser
   Communication
- Ground Segment as a Service
- Earth Observation
- Quantum Key Distribution
- Optical Feeder Link
- Contrail Detection



## **MIRATLAS**

Miratlas characterizes clouds and atmospheric turbulence to enable direct to earth laser communications regardless of weather conditions through optimal terrestrial site diversity and network routing.

#### **ABOUT US**

Miratlas, characterizes clouds and atmospheric turbulence with a global network of Sky Monitors instruments of our own design and manufacture which rely on the passive analysis of the light from the stars and sun. Derived from astronomy, these high-precision and real-time data are critical for direct to

#### **OUR OFFER**

Minimizing CAPEX: we optimize the design of the optical ground segment thanks to atmospheric data and modelling to inform: Optical Ground Station (OGS) design, number, and location to provide the best possible ground network design ensuring

#### **COMPETITIVE EDGE**

The Sky Monitor is the only instrument on the market providing continuous (night and day) and complete characterization of all the parameters impacting laser communication, absorption (cloud and water vapor) and earth laser communications.

Miratlas provides data to equipment manufacturers, satellites, and telecom operators. Enabling optimal network design and routing while ensuring the continuity and efficiency of operation regardless of atmospheric conditions.

capacity, availability and maximizing the return on investment.

Minimizing OPEX: we forecast the laser link availability and capacity to optimize dynamic network routing to reduce handovers between decorrelated ground sites.

#### scattering (turbulence).

Our global network of Sky Monitor provides continuous statistical data collection with the necessary climate and site diversity



Jean-Edouard COMMUNAL

ceo & co-Founder +33 6 51 14 73 82 iec@miratlas.com







- Star Trackers
- Space Cameras
- Innovation
- Versatility
- Next Space
- New Space



### SODERN

Our ambition: put our pioneering spirit to the benefits of security and exploration for both Earth and Space

#### **ABOUT US**

The world reference in space optronics, Sodern equips nearly one third of international satellites and space vehicles, for all types of mission: telecommunications and observation satellites, scientific and climate monitoring programs, solar system exploration missions and more.

As a strategic supplier to the French

#### **OUR OFFER**

Sodern is the world leader in star trackers and offers the widest range of products on the market. From low Earth orbit to deep space, our star trackers benefit from a long flight experience, at the service of the largest space agencies and the main satellites manufacturers in the world, but also start-ups and new space constellations.

#### **COMPETITIVE EDGE**

Sodern has been developing cuttingedge technology for the space, defense and neutron analysis markets for 60 years. It is our conviction that experience is an essential factor Armed Forces Ministry, Sodern operates in the areas of nuclear deterrence, space security and optronics equipment installed on military satellites, missiles or other platforms. As the world leader in neutron generators, Sodern is also a pioneer in neutron analysis instruments which enables subsoils to be explored and characterized.

Hydra is a star tracker which provides modularity and performance thanks to a range of versions. Providing exceptional quality and resilience, Hydra is installed in particular on board the main institutional and scientific missions of several countries, as well as on telecommunications and observation satellites in all orbits.

for excellence and credibility and throughout our history we have been able to capitalize on this strength to generate breakthrough innovations.



Farah BOUROKBA REGIONAL SALES MANAGER NORTH AMERICA +33 7 85 00 93 59 farah.bourokba@sodern.fr









# TYXEX

#### **REFERENCE CUSTOMERS**

AIRBUS, CNES, COLLINS AEROSPACE, THALES, CONSTELLIUM, SES

#### **APPLICATION SECTORS**

- Defence and Space
- Transportation and logistics
- · Critical industries, Energy and Engineering
- · Governmental organisations



www.tyrex-cyber.com

## TYREX CYBER

We provide secured data exchange on removable devices by protecting customer's critical infrastructures (defence, space, energy, transportation,...) from USB-based threats.

#### **ABOUT US**

Formerly known as KUB, Tyrex is French based company founded in 2016. With more than 3 000 kiosks deployed worldwide and 250+ customers, TYREX became the industry leader in

#### **OUR OFFER**

In order to share data, the use of USB keys and removable devices is commonplace. However, controlling the risks of contamination through those medias can be a real challenge, as they are rarely analyzed before being used.

37% of computer security threats (virus, worms, malware, trojans etc.) are created to spread through removable media<sup>1</sup>. To address this issue and secure

#### **COMPETITIVE EDGE**

We provide a ruggedized solution embedded with the most advanced detection and protection technologies on the market, and as cybersecurity threats are constantly evolving, we are continually investing in R&D in order to removable device antimalware solution. After several sales successes in the United States, and in order to be as close as possible to our customers, we opened a subsidiary in New York in 2023.

data exchange, TYREX has designed and produced military-grade kiosks that are able to detect known and unknown threats. Our decontamination solutions combine simplicity of use and deployment for users with high technical and operational standards in order to adapt to every IT or OT infrastructures and regulations.

adapt to the latest emerging cyber risks that can affect our customers on a daily basis.



**Gérard VARJACQUES** +1-917-476-7756 gerard.varjacques@tyrex-cyber.com





They chose the Occitanie region! Loft Orbital, E-Space, Astroscale, Pangea Aerospace, AIKO - Infinite ways to autonomy , Dawn Aerospace...

#### **APPLICATION SECTORS**

- Infrastrutures
- Integration
- New space
- Applications
- Satellites of all sizes
- Leader in Europe for space activities

www.invest-in-occitanie.com



Carole CREVEL INVEST & TRADE PROJECT MANAGER +33 (0)6 12 59 43 26 carole.crevel@agence-adocc.com

## **AD'OCC**

For the past 25 years, the economic development agency for the Occitanie region, AD'OCC, has been providing support to space companies seeking to establish operations in Occitanie.

#### **ABOUT US**

AD'OCC Invest & Trade Occitanie, is the regional development agency of the Occitanie region.

Strategically situated in Toulouse and Montpellier, within the dynamic Southwestern region of France, AD'OCC extends comprehensive

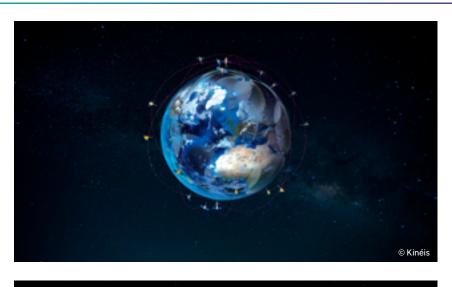
#### **COMPETITIVE EDGE**

The Occitanie region is Europe's leading space industry, accounting for 40% of French jobs in the sector, with over 14,000 jobs.

Major prime contractors are here: CNES (French Space Agency), Airbus Defence & Space , Thales Alenia Space support to companies throughout their entire lifecycle. From inception and establishment to fostering innovation, facilitating growth, securing funding, enabling exports, facilitating ownership transfers, we serve as a catalyst for talent attraction.

Find a complete industry at your service: from design to integration, from infrastructures to applications and uses, and from start-ups to large groups.

It is also the birthplace of the Globalstar, Iridium, Oneweb, Kineis, Lightspeed constellations...







Airbus Defense & Space, Astroscale, Thalès, ESA, CNES, SES..

#### **APPLICATION SECTORS**

- Space Situational Awareness
- Sensor
- Space Asset protection
- Orbital object tracking



## ALDORIA

We collect, process and leverage space situational awareness data to protect critical assets in space.

#### **ABOUT US**

By actively monitoring space debris, satellites and derelicts, Aldoria helps operators, space agencies and more largely the space community, proactively avoid threats and adjust orbital paths. Aldoria's orbital information system is driven by its multi-source approach and advanced tracking capabilities. By integrating data from various sources, the system provides a comprehensive understanding of the space environment in real-time across different orbital regimes. At the heart of Share My Space's innovation in space situational awareness lies their reliance on a proprietary patented network of telescopes.

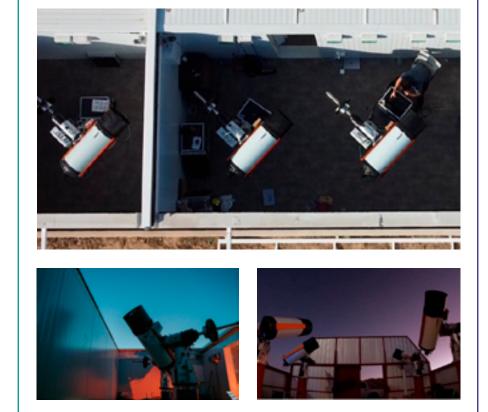
#### **OUR OFFER**

Aldoria provides a range of data and safety and security services to protect space assets. From Fleet Management which provides collision avoidance to on-demand and specific tracking within the entire orbital arc to more intelligent and defense-oriented applications and

#### **COMPETITIVE EDGE**

Aldoria developed and patented a Multi Telescope Optical Station (MTOS), capable of screening a 360° sky ring in a few seconds, allowing mass survey threat detection. Aldoria guarantees uninterrupted space operations. By highlighting and addressing abnormal behaviors, we also empower MODs to protect national interests, maintain strategic advantage, and uphold the security of military assets.

in LEO. Aldoria can detect any object without knowing its initial position which makes it the first-ever optical survey system.





Mylène BOSIO SALES & MARKETING VP + 33 7 82 68 97 00 mbosio@aldoria.com



French MOD, CNES, European Defense Agency

#### **APPLICATION SECTORS**

- Space Domain Awareness
- Space C2 and Simulations
- Access & Mobility to, from and in Space

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#### www.ariane.group/en/



Etienne BOSCA

HELIX SOFTWARE CHIEF ENGINEER



#### Jérôme DUFOUR

FUTURE SPACE SOLUTIONS PROGRAMME MANAGER & PROJECT INCUBATOR

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jerome.dufour@ariane.group

## **ARIANE GROUP**

Since more than 10 years, we have developed a space surveillance system named Helix for multiple orbits and we provide different types of services to multiple customers (commercial and military). This system is composed of a worldwide network of innovative optical sensors and a digital platform to plan the sensors network and to analyze and deliver data.

We also participate in a leadership position to European funded projects in the SDA domains.

#### **ABOUT US**

ArianeGroup is lead contractor for the Ariane 6 launcher and for the French oceanic deterrent force. With 8,300 highly qualified employees in France and Germany, ArianeGroup has unique expertise in access to space, covering the full spectrum of civil and military launch systems. ArianeGroup also offers a broad range of space, defence and industrial equipment and services, both individually and together with

#### **OUR OFFER**

Based on multiple and worldwide sensors network, ArianeGroup is able to provide data and analysis for both civilian and military users. Keeping on innovating, ArianeGroup is developing, integrating and deploying new Infrared sensors, laser tracking stations and

#### **COMPETITIVE EDGE**

The Helix service and C2 is a high level cloud based tool in charge of :

- monitoring and controlling the optical stations of the network
- the automatic sensors planning
- retrieving angular measurements and

its subsidiaries Sodern, Pyroalliance, Nuclétudes and APP.

ArianeGroup also provides the most advanced technologies in many domains including Mobility in Space (dual approach), Space Situational Awareness, Space Surveillance & Tracking, Early Warning systems, Control Command for ballistic Missile Defence.

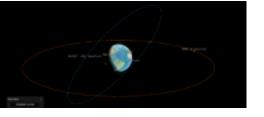
object characterization solutions to extend the performance regarding the size and the number of active and debris in the ArianeGroup Catalogue as well as the temporality of the data based on good coverage.

magnitude from the optical stations

- performing dedicated analysis on specific object or space area
- detecting, identification, monitoring, tracking & cataloguing space objects for all orbits











- Space manufacturing
- Equipments and systems for launchers, satellite, ground segment, test and qualification, space exploration vehicles, orbital stations, SSAs, ISAM



### GIFAS

GIFAS is promoting the French space industrial ecosystem, supporting its members, among the leaders on commercial space segments—keeping pace with the dreams and determination that have motivated actors in the international aerospace sector for more than a century.

#### **ABOUT US**

The French Aerospace Industries Association (GIFAS) is an industry body that brings together some 460 companies ranging from main prime contractors and system suppliers to SMEs and startups. They form a cohesive, hard-driving high-technology sector specializing in the design, development, construction, marketing and maintenance of all aeronautical and space programs and equipment, both civilian and military planes and defense and security systems. In 2022, GIFAS generated €62.7 billion in revenue, predominantly from exports, employing 195,000 people, space activities accounting for 10% of its revenue. GIFAS also organizes the renowned Paris-Le Bourget International Air and Space Show, with its 55th edition scheduled for 2025.

In the US, GIFAS coordinates the presence of some 90 French companies (200 industrial sites) through its dedicated network "NAFAN"



Frédéric PARISOT GIFAS CHIEF EXECUTIVE OFFICER +33(0) 1.44.43.17.05 frederic.parisot@gifas.fr





- · Light launcher (microlauncher)
- SmallSats
- Dedicated launcher
- Nimble launch solution
- Microlauncher



#### Adeline PITROIS HEAD OF SALES +33 (0)7 88 97 06 56 contact@latitude.eu

## LATITUDE

Latitude designs, builds and operates space transportation solutions to enable pioneers making space their own.

#### **ABOUT US**

Latitude is an innovative European space company, fueled by a passion for exploration and a commitment to bringing space resources closer with our cutting-edge launcher Zephyr. As pioneers in the industry, we specialize in launching small satellites with unparalleled precision and flexibility.

#### **OUR OFFER**

Latitude designs, develops, and implements a range of services dedicated to achieving smallsat missions. The cornerstone of this vision is a reactive and dedicated launch vehicle solution that aims to enable the small satellites to access space on their terms: Zephyr.

#### **COMPETITIVE EDGE**

Zephyr, the micro-launch vehicle under development by Latitude, will offer the small satellite market a direct access to space with the capacity to reach any orbit at any time. Flying aboard Zephyr will allow customers to benefit from the most competitive all in one solution: Zephyr, our flagship launcher, embodies our mission to make space accessible and sustainable for all. Designed for flexibility and efficiency, Zephyr caters to a diverse range of missions in LEO. With Latitude and Zephyr, your aspirations are not just launched; they're realized.

Zephyr is a 19m long, 1.5m large launch vehicle, able to bring payloads of 200kg in LEO, developed to be as simple as possible while leveraging key technologies to reduce cost, increase performance and launch rate.

- Reduce time to reach orbit to accelerate satellite revenue generation;
- Lower the risks of your mission;
- Manage your own launch services;







Ariane Group, OneWeb, Airbus, Thales, Dassault

#### **APPLICATION SECTORS**

- Optical communication
- Cable replacement
- Docking solution
- Harness removal
- Communication system
   for launcher
- Data security





Benjamin AZOULAY CEO +33 7 85 14 72 64 benjamin.azoulay@oledcomm.net

## OLEDCOMM

We provide wireless optical communication allowing to exchange data at very high speed in a completely secure way without using radio frequency for space applications.

#### **ABOUT US**

Oledcomm is a French company headquartered in Vélizy-Villacoublay, located in the Ile-de-France region. It emerged as a spin-off from the Paris-Saclay University, specializing

#### **OUR OFFER**

We offer wireless optical communication solutions without RF waves, enabling secure, interferencefree connectivity at very high speeds.

- On the launcher side, we offer interstage and intra-stage communication solutions that allow detachable connectors to be removed.
- On satellites, we reduce the number of cables by enabling high-speed wireless data exchange.
- Between two satellites, we enable

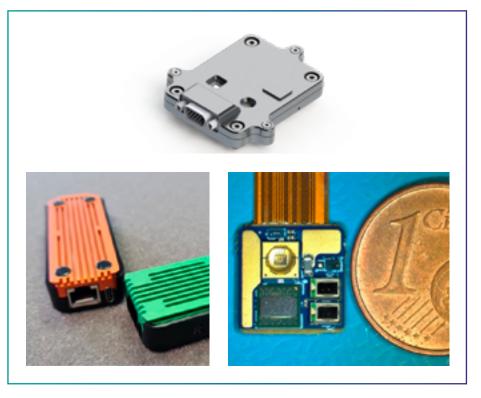
#### **COMPETITIVE EDGE**

With a portfolio comprising 34 patents and 17 years of R&D, Oledcomm can claim to be a company with a rich technical expertise that has enabled several significant milestones in wireless optical communications for the space and defense sectors. The technology developed by Oledcomm enables a new mode of reliable, highspeed and secure communications.

optical communication for space rendezvous applications such as docking.

- Finally, our technology facilitates the transfer of information in areas where the use of radio frequencies is difficult and where there are major wiring problems, particularly in AIT rooms.
- We are currently developing longerdistance communications solutions for future space applications.

.Oledcomm is the first company to have sent LiFi into orbit. The company has won numerous innovation awards : BPI Excellence, European Innovation Award, CES Innovation Award.



# HYP4Uses

#### **APPLICATION SECTORS**

- Earth observation
- Hyperspectral imaging services
- Hyperspectral applications
- Nanosatellites constellation



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## **HYP4USES**

HYP4Uses offers commercial hyperspectral imaging services, using a constellation of nanosatellites for Earth observation.

#### **ABOUT US**

HYP4Uses' mission is to preserve the Earth and Humanity through a new generation of space imaging. HYP4Uses offers commercial

#### **OUR OFFER**

Hyperspectral imaging enables chemical analysis of designated geographic areas. Thus, the accessibility of this wealth of new information holds exceptional value in addressing 21st-century challenges, including societal, global warming, sustainable development, sovereignty, etc.

#### **COMPETITIVE EDGE**

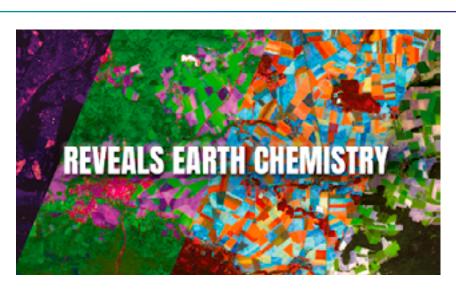
The HYP4Uses solution is founded on three key innovations:

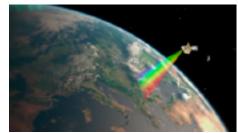
- High hyperspectral resolution Duality: Civil technology serving defense interest
- High temporal resolution Daily revisit

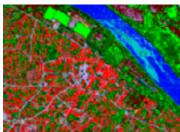
hyperspectral imaging services, using a constellation of nanosatellites for Earth observation.

The HYP4Uses project will demonstrate an end-to-end in-orbit global service, starting 2026, integrating acquisition, retrieval, and exploitation of hyperspectral space data from low-orbit nanosatellites equipped with innovative and compact imagers.

• High application potential Open hyperspectral services platform









- Satellite
- Hosted Payloads
- Interface
- Space Mission as a Service



••••••



Theophile LAGRAULET

CEO

contact@spacelocker.fr

### SPACELOCKER

We provide turnkey space missions onboard shared satellites thanks to a universal interface technology making missions faster, more efficient and more sustainable.

#### **ABOUT US**

SpaceLocker is a growing French startup proposing plug-and-play space missions thanks to a universal payload/ platform interface enabling its users to independently develop their sensors or experiments and then fly them on the best host platform. Compatible

#### **OUR OFFER**

SpaceLocker's offer can be described in 3 services:

- in-orbit equipment demonstration or validation: quickly and easily get aboard vehicles that are more capable and more durable than small demonstration satellites.
- space data production: generate data with a sensor or a constellation of sensors hosted on our infrastructure, in the orbits that interest you and at the pace that suits you.

#### **COMPETITIVE EDGE**

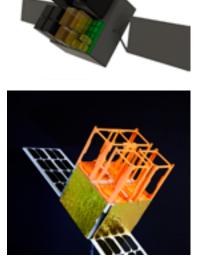
The major advantage of SpaceLocker services is their repeatability and flexibility: we are convinced that the space industry is moving from a madewith nearly all existing spacecraft from spacetugs to dedicated SmallSat even including space stations or rocket stages, the company creates a real flight catalogue logic starting with LEO in October 2024 up to GEO or further!

 simplified management of shared missions: we also work with spacecraft manufacturers to simplify the management of multiple clients, both on-board and on the ground.

In all these cases, our universal interface enables payload-independent development, abstraction from the space segment (high-level datahandling, launch and platform operations included, etc.) and by leveraging mutualization, performance and sustainability.

to-measure to an industrial phase, and we're doing everything we can to make this transition as smooth as possible.





## TEKEVER

#### **REFERENCE CUSTOMERS**

European Space Agency, OHB, CNES, EMSA, Tyvak

#### APPLICATION SECTORS

- Inter-Satellite Links (ISL)
- RF payload for small satellite
- Synthetic Aperture Radar
- Swarm Constellation
- Space Exploration
- Communication



www.tekever.com

#### Pedro RODRIGUES

DIRECTOR,

#### Esma MEKRAOUI

Business Development Manager,

Josué BARAO

BUSINESS DEVELOPMENT MANAGER,

#### Nadia MAAREF

DIRECTOR +33637987607 nadia.maaref@tekever.com

## TEKEVER

Space is playing an increasingly important role for humankind and is an integral part of our economy. From Space Exploration, Earth Observation and New Technology Development, TEKEVER delivers you advanced Technology to push the boundaries in Space.

#### **ABOUT US**

TEKEVER is a recognized expert in advanced satellite communication and networking systems for multi-satellite

#### **OUR OFFER**

TEKEVER offers two main products for Space applications: GAMALINK a SDRbased Inter-Satellite Link (ISL) for flexible in-orbit connectivity and GAMASAR a Synthetic Aperture Radar payload.

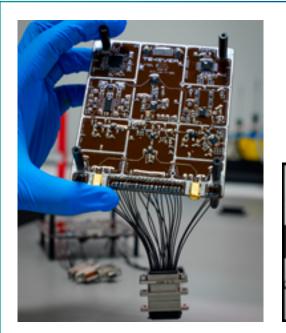
GAMALINK is one of the most advanced and flexible RF communication platforms, optimized for in-orbit connectivity. GAMALINK is the technology enabler for creating a unique communications network incorporating not only the space, but also the ground segment.

#### **COMPETITIVE EDGE**

TEKEVER competitive advantage is deeply rooted in our unparalleled expertise in radio-frequency technology, allowing us to deliver highly advanced and customized RF subsystems. With full vertical integration and control missions, particularly Inter-Satellite Links, as well as satellite RF payloads for Earth observation and space exploration.

GAMASAR technology provides cloudpenetrating and light-independent capability to capture key terrain data for multiple applications (security, environment,etc.). Flexibility of TEKEVER solution allows installation in any platform of choice: either UAV or SAR-enabled satellite, providing users with low-latency data upon mission request.

over manufacturing, we drive strategic innovation and scalability. Our adaptable systems streamline development, reducing costs and ensuring agility to meet the evolving needs of both the market and our users.









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Valentin STEE ASTRALINK MANAGER +33422909800

communication@acri-st.fr sales@astralink.eu

## ASTRALINK

ACRI-ST cares for your satellite data – from data collection and maintenance to sensor calibration and comprehensive mission management. We empower satellite operators with a modular, scalable Ground Segment as a Service, enhancing mission capabilities through reliable communication, control, and data management, tailored for Earth observation and IoT applications worldwide.

#### **APPLICATION SECTORS**

- Ground Segment as-a-Service
- Multi-mission Ground Network
- Dedicated Ground Station
- Turnkey Solution
- SmallSats

- Telecommunications
- Newspace
  - Ground Segment
- Satellite operations







www.airliquide.com/group/ activities/global-marketstechnologies



Yannick JUANICO HEAD OF SALES DEPARTMENT, SPACE BUSINESS UNIT

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## **AIR LIQUIDE**

Air Liquide is a world leader in gases, technologies and services for Industry and Health.

ASTRALINK

- Cryogenic equipment for launchers
- · Launch pads
- Electric propulsion
- Space exploration
- Regenerative Fuel Cell System; energy management for space exploration
- Active cryocooling systems for earth observation



AUBERT&DUVAL

www.aubertduval.com/markets/ aerospace/space-industryparts/

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## **AUBERT & DUVAL**

A unique industrial set-up to offer highly reliable and secure metallurgical solutions for the most complex, lighter, large-scaled, critical and cryogenic applications.

#### **APPLICATION SECTORS**

- Metal structural parts
- Powders for additve
- manufacturing

- High Performance steels
   & alloys
- Tanks









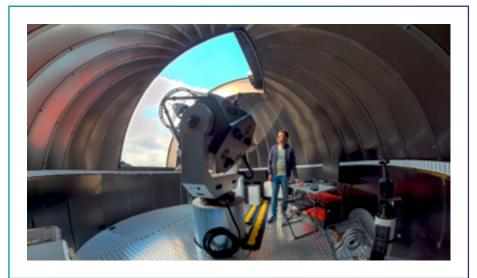
Jean-François MORIZUR

+33 6 38 82 62 89 jf@cailabs.com

## TILBA ®-OGS

We leverage our knowledge in photonics and engineering to create innovative laser light products for various industries, that bring faster, safer, more reliable and precise solutions.

- Laser communications
- Optical Ground Stations
- Free-space optical communications



## CELESTIA | Callisto





Celestia Callisto specializes in the design and manufacture of high-performance front ends for ground stations, using cryogenics to improve the performance of low noise amplifiers and offering bespoke low noise Radio Frequency solutions from S to Q Band.

#### **APPLICATION SECTORS**

- Electronic Equipment
- End to End solutions provider
- Power Supply
- On Board Computer
- Front End Electronics
- Data handling and mass memory Unit
- Mechanism Drive Electronics
- Human Space Flight
   Instrument





www.comat.space



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## COMAT

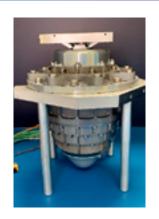
OMAT is a space equipment manufacturer specialized in state-of-the-art mechanisms and deployable systems. We provide sub-systems based on our specifications coming from our market analysis, or customer requirements / preliminary design.

- Development of space equipment
  Mechanism
- Deployable subsystem















www.csgroup.eu



## Nicolas FROUVELLE

HEAD OF MARKETING & COMMUNICATION - SPACE

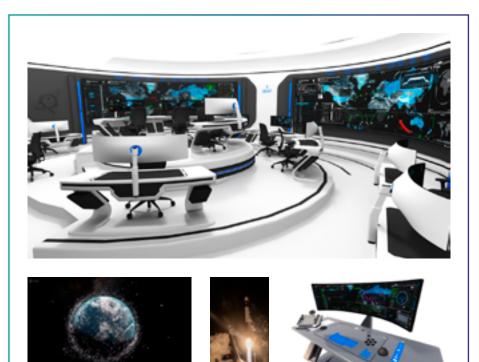
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#### **REFERENCE CUSTOMERS**

CNES, ESA, EUSPA, EUMETSAT, AIRBUS DS, THALES ALENIA SPACE, ARIANEGROUP, French MinArm, HEMERIA, ASTROSCALE











Fabien APPER CEO +33 6 70 48 02 06 fabien.apper@u-space.fr

## **U SPACE**

U-Space designs and builds next-generation nanosatellites to enable operators to overcome a complex entry barrier and facilitate the design and production process of dedicated constellations.

#### **APPLICATION SECTORS**

- Earth Observation
- Space Situational Awareness

In Orbit Demonstration

IoT (Internet of Things)

- PNT (Positioning, Navigation, Timing)
- Telecommunication











www.erems.fr/en/



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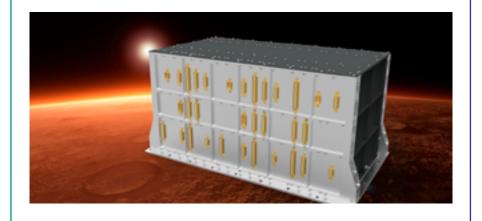
### EREMS



EREMS is an end-to-end space company delivering embedded electronic equipment.

#### **APPLICATION SECTORS**

- Electronic Equipment
- $\cdot$  End to End solutions provider
- Power Supply
- On Board Computer
- Data handling and mass memory Unit
- Front End Electronics
- Mechanism Drive Electronics
- Human Space Flight
   Instruments



## EVIDEN



#### www.skymonng.com



Eias DAKA SALES DIRECTOR AND KEY ACCOUNT EXECUTIVE

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## EVIDEN

We provide our customers with compehensive RF based payload monitoring system including satellite carrier monitoring, signal geolocation, satellite tracking and space situational awareness (SSA) for satellite operators and MODto ensure high QoS for critical communications and protect these assets from jamming and other interferences.

- Satellite Payload Monitoring
- Geo Location System
- VSAT monitoring and geo location
- Satellite Tracking System
- Next generation space radio signal surveillance for satellite operators & MOD's
- Singel satellite Geo Location
   solution





www.exotrail.com



Sébastien DUMENIL cco +33 6 80 80 84 93 sebastien.dumenil@exotrail.com

## **EXOTRAIL**

Exotrail is an end-to-end space mobility operator. Our mission is to enable small satellites to move in space, optimise their deployment, increase their service performance, and reduce space pollution.

#### **APPLICATION SECTORS**

- Electric propulsion systems
- Space mobility
- In orbit services

- Operation software
- Mission design software
- Space logistics







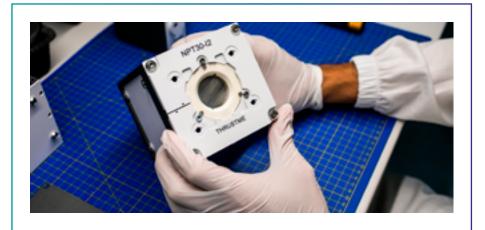


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## **THRUST ME**

With a portfolio of electrical propulsion systems, including the world's first iodine-fueled system demonstrated in space, ThrustMe is helping customers with cost-effective and high-performance solutions.

- In-space satellite electrical propulsion
- RF plasma based ion propulsion
- Iodine-fueled satellite electric propulsion







www.infiniteorbits.io



Marion ANDRIEUX CHIEF COMMERCIAL OFFICER +33 6 73 62 15 06 marion@infiniteorbits.io

## **INFINITE ORBIT**

We are revolutionizing In-Orbit Services in GEO orbit with innovative spacecrafts powered by our RendezVous solution, an advanced autonomous vision-based navigation software. We design and operate 'Servicers' to provide inorbit services to satellite operators such as SSA, inspection and life extension services.

#### **APPLICATION SECTORS**

- GEO in orbit services
- Space Situational Awareness -SSA
- Inspection
- Life Extension
- RendezVous technology







www.invest-in-toulouse.com



Charlotte VOISIN AEROSPACE INWARD ADVISOR +33 6 29 94 70 60 c.voisin@toulouseatout.com

## **INVEST-IN-TOULOUSE**

Invest in Toulouse promotes our dense aerospace ecosystem and tries to find new gems willing to open offices and create jobs there.

To do so, we are supporting and advising innovative companies from the exploration phase - creating tailored B2B meeting with key players - to their establishment in the Toulouse ecosystem.

Our support is free of charge and confidential.

- Satellites
- Equipements

- Embedded Softwares
- Space Apps







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## LOOK UP SPACE

We provide sovereign end-to-end safety and security solutions for a sustainable use of space.

#### **APPLICATION SECTORS**

- Space Debris
- Space Situational Awareness (SSA)
- Space Domain Awareness (SDA)
- Space safety & security
- Space sustainability
- Collision avoidance
- Orbital threats





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## PANGEA AEROSPACE

We are experts in chemical space propulsion, offering our customers the most efficient engines for traveling to, around and from Space.

- Rocket propulsion
- In-space propulsion
- · Aerospike Engine
- Chemical propulsion
- High thrust





www.syntony-gnss.com/ aerospace



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SYNTONY GNSS is a worldwide expert in GNSS systems & products for Space/Ground/GNSS cybersecurity needs.

#### **APPLICATION SECTORS**

- GNSS
- Software Defined Radio
  CRPA anti-jamming,

anti-spoofing

- Spaceborne GNSS Receivers
   LEO PNT
  - LEU FINT
     CNSS Simula
  - GNSS Simulator





www.defense.gouv.fr/dga

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# EXHIBITORS CATALOGUE FRENCH DELEGATION

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