

AROUT THE

ABOUT THIS REPORT

CNES's annual report was coordinated by the Communication Directorate. The members of the Executive Committee also helped to put together this report, which was validated under the authority of the Chief Operating Officer. This report includes elements of our corporate social responsibility strategy, and we hope it provides some insights into what CNES does and shows how we are benefiting society at large, the environment, citizens and our agency's people.

The Antarctic seen by the Pleiades satellite.

September 2025

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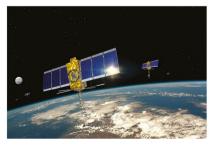
SOVEREIGNTY

Space serving the military and strategic independence



ECONOMIC COMPETITIVENESS

Driving development of the French and European space ecosystem



CLIMATE SCIENCE

Aiding adaptation to climate change





SCIENTIFIC COOPERATION

Extending French excellence



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SPANNING THE ENVIRONMENTAL, ECONOMIC, SCIENTIFIC AND GEOPOLITICAL SPHERES, CNES IS STEPPING UP ITS COMMITMENT TO SERVE THE NATION, SOCIETY AND THE AGENCY'S ECOSYSTEM.

FRANÇOIS JACQ

CNES Chairman & CEO

NES is a centre of science and engineering excellence, and a leading player on the European and international space stage. And with space now a strategically more vital sector than ever before, I am especially proud to have joined the agency at this time.

2024 was a beacon year in maintaining our independent, sovereign access to space, an absolute priority for France and Europe, notably through the successful first flight of Ariane 6 and the return to service of Vega-C at the Guiana Space Centre (CSG). To boost our competitiveness, the CSG is pursuing its modernization and paving the way for the future of space transportation as it gears up to accommodate new players, while CNES continues to work alongside the Ministry for Armed Forces to execute the nation's military space strategy.

As a prime mover behind the national and European space ecosystem, CNES is driving innovation and France's industrial competitiveness. In 2024, we positioned the first 15 satellites of the Kineis constellation in orbit and ramped up our investments under the space strand of the government's France 2030 plan, more than half of which are supporting new entrants in the space sector.

The year also brought notable successes in universe sciences, with the launches of the SVOM and Hera missions and the DORN instrument, and the remarkable results of the Euclid mission.

All of these French contributions are advancing

both science and industry, while also extending the global reach of the French scientific community and forging future partnership ties.

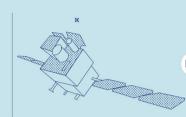
Lastly, CNES led trailblazing Earth-observation missions in 2024 to aid efforts to adapt to climate change and gain new insights into our planet. Initial flight trials with the BALMAN manoeuvrable balloon and the Transat campaign from Sweden to Canada offer new perspectives. At the same time, our agency is federating a range of initiatives like the Space4Ocean Alliance (S4O) and the Space for Climate Observatory (SCO). At the national level, this spirit of collaboration permeates the CoSpace government-industry space coordination committee, focusing on joint efforts to decarbonize the space sector.

Numerous developments have already been completed in 2025, with the launches of CSO-3, IASI-NG, CO3D, MicroCarb and the PHARAO atomic clock. We are also contributing to the future deployment of flagship European programmes like IRIS², not forgetting upcoming major milestones such as the establishment of the national space strategy and the ESA Ministerial Conference to be held at the end of the year.

CNES's ambition is to affirm and step up our actions as a leading European and world space player, while consolidating our strategic role aiding the French government with our topflight science and engineering expertise.

HOW CNES CREATES VALUE

OUR MISSION



CNES is the government agency and field centre that shapes and executes France's space policy, working for the future and fostering the space ecosystem.

FIELD CENTRES



Les Halles











RESOURCES

HUMAN RESOURCES

- 2,369 employees, 40% women, working at 4 centres
- 5% of payroll devoted to training
- 87.6% engineers and executives

FINANCIAL. INTELLECTUAL & TECHNICAL RESOURCES

- €2,237m in subsidies and income
- €479m for innovation
- 1 dynamic subsidiaries and shareholdings policy
- 461 doctoral and post-doctoral researchers
- 1 space economy observatory
- 2 field centres for orbital systems, space infrastructures and launch systems
- 1 launch base, Europe's spaceport

STAKEHOLDERS

- Government, ministries (Economy, Finance & Industrial & Digital Sovereignty, Higher Education, Research & Innovation, Armed Forces)
- Space user communities Industry partners
- Local and regional authorities
- ESA, European Union, international space agencies, world bodies

SOCIAL & ENVIRONMENTAL RESOURCES

- · Space missions for the environment, science and the military
- Policies to sustain industry, new space ecosystem players and jobs, to support the scientific community and foster international cooperation
- Structures to assure safety of space operations and aid military space strategy
- Commitments to reducing the carbon footprint of facilities and space projects
- · Commitments to surveying and preserving biodiversity at facilities

CNES intends to work persistently to serve sovereignty, competitiveness, climate and science.

STRATEGIC FOCUSES

STRATEGIC

INDEPENDENCE



ECONOMIC DEVELOPMENT

SCIENCE AND ENGINEERING EXCELLENCE



FOR STAKEHOLDERS

RESULTS

- 9 data access hubs/infrastructures
- 3 launches from Kourou in 2024
- 33 space missions in development (30 orbital systems and 3 space transportation systems)
- 14 priority innovation vectors in development
- 254 innovation proposals funded
- 862 scientific research proposals
- 146 new entrants supported (start-ups, SMEs, mid-tier firms and large primes)
- 19 agreements with authorities or organizations outside the space ecosystem
- 127 international cooperation agreements



FOR SOCIETY & THE ENVIRONMENT

- 85 activations of International Charter Space & Major Disasters
- 53 space agencies/organizations signed up to the Space for Climate Observatory (SCO) international charter
- 84 SCO France accredited projects
- 935,000 beneficiaries of educational actions
- 2,000 teachers trained
- 9 biodiversity goals (Act4Nature)
- 2,200 species of flora and fauna recorded at Guiana Space Centre
- 16 sustainable Development Goals (Agenda 2030) to which CNES is contributing



FOR EMPLOYEES

- 1 policy emphasizing work/life balance and well-being at work
- 90/100 gender equality score
- 61,118 hours devoted to training



GOVERNANCE



François Jacq Chairman & CEO



Lionel Suchet Chief Operating Officer



Pierre Fond **Chief Accountant**



Philippe Steininger Military Adviser to the Chairman & CEO



Pierre Tréfouret Chairman & CEO's Chief of Staff



Jean-Marc Astorg Strategy



Bernard Chemoul Inspector General & Director of Quality



Marie-Anne Clair Technology & Digital



Caroline Laurent Orbital Systems & Applications





Carine Leveau Philippe Lier Space Transportation Guiana Space Centre



Laurence Monnover-Smith Sustainable **Development Office**



Christophe Venet Europe & International



Jean Aussaguel Accounting*



Gérald Dupré Procurement & Sales



Nicolas Hengy Finance



Thierry Levoir Central Industrial Security & Safety



Marie-Claude Salomé Communication



Liliane Sebas Human Resources

BOARD OF DIRECTORS

(AT 23 MAY 2025)

Mr François Jacq

CNES Chairman & CEO

Mrs Hélène Ben Aïm Drieux Employee representative

for CFE-CGC

Mrs Corinne Borel Ministry for Higher Education

and Research

Mr Emmanuel Chiva French defence procurement agency (DGA)

Mr Jonathan Collas Representing the Prime Minister's Office

Mrs Evelyne Cortiade - Marche Employee representative for CFDT

Mr Thomas Courbe Government Commissioner -**Director General for Enterprise** Mr Daniel Galarreta

Employee representative for CFTC

Mr Benoist Grossmann

Senior Managing Partner Venture and Venture Digital – Eurazeo Global Investor SAS

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Ministry for Europe and Foreign Affairs

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Mr Vincent Leudiere

Employee representative for CFDT

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Ministry of the Economy, Finance and Industrial and Digital Sovereignty

Mr Jean-Philippe Murat

Employee representative for CGT-UTG

Mrs Amandine Reix

Ministry of the Economy, Finance and Industrial and Digital Sovereignty

Mr Bruno Sainjon Chairman & CEO of ONERA

Mrs Alicia Saoudi

Ministry of the Economy Finance and Industrial and Digital Sovereignty

Mrs Florence Verzelen

Executive Vice-President, Dassault Systèmes

SEAT VACANT

Employee representative for CGT/UTG

AUDIT COMMITTEE

Mr Benoist Grossmann (Chair)

Mrs Amandine Reix

Mrs Alicia Saoudi

Mrs Florence Verzelen

The following also take part in planning meetings with the agency's overseeing ministries and in Audit Committee meetings:

Mrs Sandrine Le Gall,

State controller

Mr Pierre Fond

Chief accountant

Administrator general of public finances

SUSTAINING OUR INTERNATIONAL REACH

CNES is a prime mover in space cooperation, pursuing bilateral and multilateral partnerships with 50 countries and international organizations. Our collaborations aim to serve the agency's programmes, further France's foreign policy and fuel the French space ecosystem.

THE AGENCY'S INTERNATIONAL PARTNERSHIPS FALL INTO THREE CATEGORIES:

• European partnerships, with the 2024 confirmed CNES's key role European Union (EU) and the European Space Agency (ESA), and bilateral partnerships through which we remain a pivotal player as a leading contributor to ESA and the chief inspiration behind the EU space regulation.

supporting French space diplomacy, with 18 agreements, declarations and letters of intent signed, in addition to our participation at some 150 bilateral and multilateral meetings and gatherings.

- Historic and foundational partnerships with leading space powers, in particular the United States, Japan and India, central to projecting CNES's international reach.
- Partnerships with new space powers like the United Arab Emirates, South Korea and Brazil, whose ambition is to transform their societies and economies through space.

agreements, declarations and letters of intent signed in 2024.





A DRIVING ROLE BEHING EUROPE'S DEFENSE, REGULATIONS AND SOVEREIGNTY

In a challenging geopolitical context and with space technologies evolving at pace, CNES continued its efforts supporting the main lines of Europe's space programme:

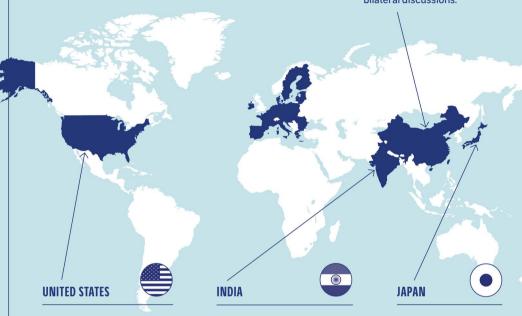
- Increased support for the European military space strategy for security and defence adopted in 2023.
- Major progress on the IRIS2 programme, with our agency's active involvement in the early stages of this sovereign secure connectivity constellation.
- Groundwork for the European Union's space law, aiming to strengthen regulations, and on the next Multiyear Financial Framework (MFF), the keystone of European space policies.

INTERNATIONALLY, CONSOLIDATION AND DIVERSIFICATION **OF STRATEGIC GLOBAL ALLIANCES** AND PARTNERSHIPS

Outside Europe, 2024 was marked by consolidation of relations with the world's leading space powers:

CHINA

Preparations for the next joint space committee meeting scheduled for autumn 2025 in Toulouse, pursuing regular bilateral discussions.



Continued strategic partnership, through regular high-level exchanges, particularly in the fields of scientific exploration, space surveillance and space infrastructure resilience.

Continuing discussions on the next France-India strategic dialogue, identifying new foundational areas of cooperation, notably in Earth observation, maritime surveillance and human spaceflight.

Preparations for the third strategic dialogue and signing of the agreement on the Solar-C mission to study the Sun.

Illustrating France's growing influence in space, CNES also provided strong support for emerging space nations, through partnerships with Singapore, Israel, Taiwan and the United Arab Emirates.

Lastly, CNES has also bolstered its Connect by CNES international platform dedicated to promoting the French space ecosystem's export sales to provide more help for new entrants, with a special focus on technology and regulatory support for start-ups looking to expand their business internationally.

A BUDGET STRATEGY SERVING AN AMBITIOUS SPACE POLICY

With the first flight of Ariane 6, the start of work on modernizing the Guiana Space Centre and more projects receiving funding from the government's France 2030 investment plan, 2024 saw a number of successes that were the result of a dynamic space funding strategy.

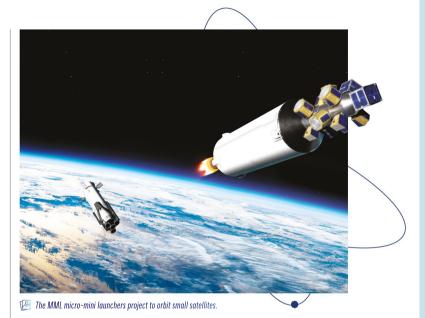
2024 also marked the third year of CNES's Objectives and Performance Contract (OPC) and the fourth of the research spending plan (LPR), consolidating the execution of programmatic decisions taken at the ESA ministerial conference in 2022.

IN FIGURES

CNES's income was 23% up on 2023*, benefiting activities such as phase B of the IRIS project, flight models 2 and 3 of IASI-NG, modernization of the Guiana Space Centre (CSG-New Generation and digitization) and commitments funded through the France 2030 plan.

CNES also consolidated the investments required to execute its real-estate strategy (€120m of its multiyear spending plan) and upgrade its information system.

Significant savings in public funding were earmarked by the government for space research in 2024, with appropriations \in 0.3 billion down on the 2025 spending bill: \in 0.2 billion from France's contribution to ESA and \in 0.1 billion from the cancellation of the government's precautionary reserve.



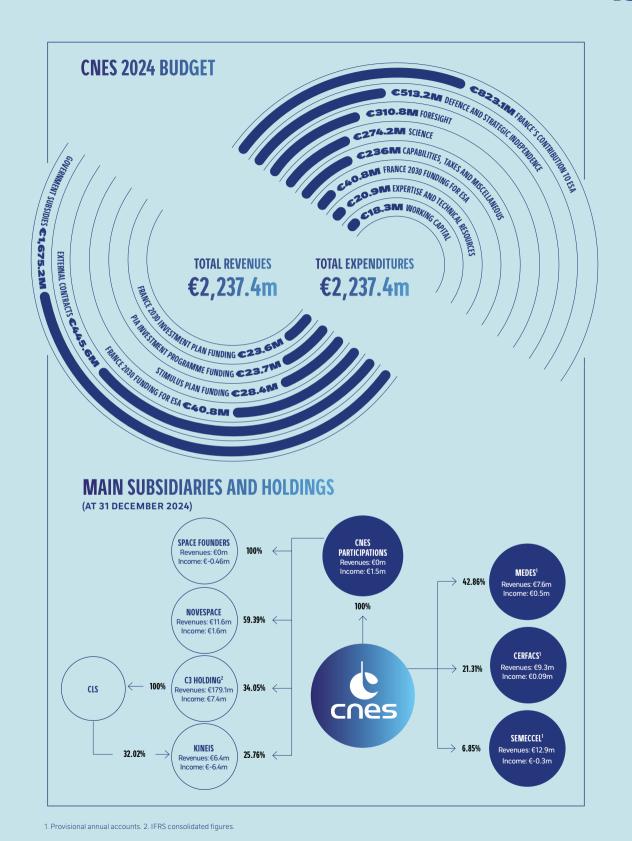
FRANCE 2030 AND MICRO-MINI LAUNCHERS

2024 proved a prolific year for the France 2030 programme, with nearly €1 billion committed and €0.2 billion disbursed. This trend is illustrated by the Micro-Mini Launchers project (MML) to develop an innovative commercial launch service for small satellites, for which the emerging and fast-growing market is likely to open up new horizons for multi-mission orbital applications catering to both institutional and commercial needs. Some €400 million was committed and €190 million disbursed to four innovative firms under this project in 2024.

20%

This is the percentage increase in CNES revenue compared to 2023*.







Space today reaches into every corner of our daily lives, with satellites playing an increasingly vital role. As a result, and amplified by current world tensions, it has become critical to sovereignty—a domain to which CNES is devoting its extensive know-how and expertise.

INDEPENDENT ACCESS TO SPACE

One of the high points of the year was unquestionably the first flight of the Ariane 6 heavy-lift launcher, while Europe's spaceport at the Guiana Space Centre pursued its modernization to meet the challenges facing European space transportation now and in the future.

MILITARY SPACE STRATEGY

As the longstanding partner of the Ministry for Armed Forces and in line with France's dual-use space model, CNES is working to renew the nation's military space capabilities and helping Space Command to hone the skills needed to conduct space operations.

SAFETY AND SUSTAINABILITY OF SPACE OPERATIONS

With the growth in space traffic, CNES is helping the defence community to assure in-orbit safety and surveillance. In this context, it is also evolving the French Space Operations Act (FSOA), for which it is the sovereign operator.

ASSURING ACCESS TO SPACE DATA

In an emerging value-added services market catering to the needs of society, business and the environment, CNES has initiated GEODES, a one-stop shop for Earth observation that is contributing to the Data Terra national research infrastructure, geared towards creating a space data marketplace.

181

flight of Ariane 6.

14

types of space threats simulated during the AsterX military exercise at Space Command.

400

satellites permanently benefiting from conjunction assessments.

101

platform centralizing CNES and Copernicus Earth-observation data in one place.

The mobile gantry is rolled back from Ariane 6 on its ELA4 launch pad ahead of its inaugural flight on 9 July 2024.

SUSTAINING INDEPENDENT ACCESS TO SPACE

The prime concern for any sovereign space nation is to possess a launch capability for its satellites. The three launches conducted in 2024, including the first flight of Ariane 6, signalled the resumption of operations at the Guiana Space Centre, which is pursuing its modernization to meet the challenges facing it now and in the years ahead. This new momentum is building on a more than 50-year legacy in operating ground launch facilities, historically a core CNES competency.

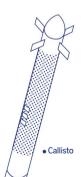
LAYING THE FOUNDATIONS FOR FUTURE SPACE TRANSPORTATION

In the light of the fast-changing landscape now taking shape and fuelled by increasingly fierce competition, CNES is laying the groundwork for the future with strong backing from the France 2030 plan. As the host base for Europe's institutional launchers, the CSG is gearing up to offer solutions to new players and modernizing to keep pace with competitors, notably through its digital transformation, for which ground was broken for a new Operations Centre in September 2024.

In 2024, under the space strand of France 2030, CNES contracted with ArianeGroup and MaiaSpace to procure a pre-operational demonstration of a recoverable and reusable launcher first stage. This demonstration will build on work accomplished with THEMIS, on which tank and avionics testing is continuing, and with CALLISTO, pursued jointly with the German space agency DLR and the Japan Aerospace Exploration Agency (JAXA), also in testing. It will be powered by the Prometheus reusable engine, the first model of which has completed testing after 19 tests in 19 months at



The future Themis demonstrator of a reusable launcher first stage.



ArianeGroup's Vernon facility. Looking further ahead, CNES has begun work with several manufacturers to mature technologies for a veryhigh-thrust staged-combustion engine.

In response to the surge in New Space, CNES solicited competitive bids for a demonstration of mini-micro launcher services. Four new operators were selected and announced on 26 March 2024. Earthworks on the former Diamant launch complex are already underway to create a multiple launch zone. At the same time, CNES is providing support for the Mesange suborbital demonstrator set to operate from the former sounding rocket launch site.

Anticipating a growing and diverse range of space activities, several service demonstrations have also been initiated through the France 2030 plan with French start-ups, for example to develop a space mobility vehicle designed for future inorbit services.



COMBINED WITH BIOSOURCED LIQUID PROPELLANTS, REUSE

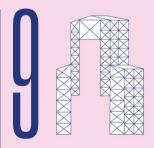
will considerably reduce launchers' environmental footprint. A call for expressions of interest was issued in October 2024 for the BIFROST project, which aims to supply biomethane for micro-launchers.



ARIANE 6 TAKES FLIGHT AS VEGA MAKES TRANSITION

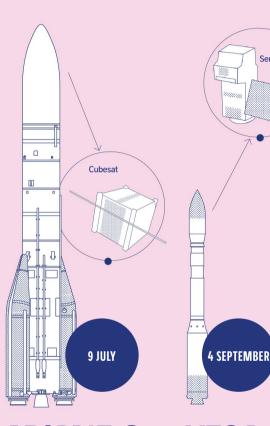
Ariane 6's successful first flight on 9 July 2024 from the Guiana Space Centre (CSG) was eagerly awaited across Europe. The modular and versatile launcher, the latest in the Ariane series, is able in medium- or heavy-lift configuration to accomplish all missions from Low Earth orbit to deep space. While this first flight demonstrated Ariane 6's flight readiness, it also validated the launch pad and operations sequence at the CSG. The new ELA4 launch complex developed and qualified by CNES was handed over to ESA on 11 July 2024. Having previously served as prime contractor for system testing, the agency will also be providing operational support at ArianeGroup and ESA's request for upcoming launch campaigns.

Complementing Ariane 6 for small satellites, the Vega-C light launcher also returned to flight on 5 December 2024, successfully orbiting the European Sentinel-1C Earthobservation satellite. The previous variant of Vega had previously accomplished its 24th and last flight on 4 September, sending aloft Sentinel-2C.



launch complexes built by CNES at the CSG.

THREE LAUNCHES FROM CSG IN 2024



Pavload: Cubesat + demonstrators + experiments

Orbit: Low Earth

Payload: Sentinel-2C

Sun-synchronous

Sentinel-2C

5 DECEMBER

Payload: Sentinel-1C

Orbit:

Sun-synchronous

EXECUTING OUR MILITARY SPACE STRATEGY

At a time of escalating international tensions, CNES is working with the Ministry for Armed Forces to execute the nation's military space strategy set out in 2019. To achieve optimal dual-use synergies in the conduct of space programmes, the agency is hosting Space Command (CDE) at its Toulouse Space Centre and helping it to hone space operations skills.

In 2024, work to develop the Yoda surveillance, tracking and action demonstrator, to renew military imaging intelligence (IRIS) and signals intelligence (CELESTE) capabilities, to prepare the CSO-3 intelligence satellite for launch, and the contribution of CNES's experts to the fourth AsterX exercise at the CDE illustrated the agency's commitment alongside the Ministry for Armed Forces in executing the nation's military space strategy.

CNES also controls military (CSO, CERES) and dual-use (Pleiades) satellites in low Earth orbit from its Toulouse Space Centre (CST), where the first cohort of CDE operators have been embedded within integrated teams to bring them up to speed. At the same time, the agency is intently focused on meeting the CDE's requirements at the CST. More than 200 military personnel from the CDE and NATO's Centre of Excellence for space are already on site, making the CST more than ever a go-to institutional facility in France and Europe. Laying the groundwork for the future, in 2024 the CNES-Ministry for Armed Forces steering committee granted security and defence accreditation to seven projects, three of them dual-use. These projects will test cybersecurity solutions on small satellites, assess the feasibility of a secure Internet of Things (IoT) capability



and extend the electromagnetic spectrum surveillance demonstration with NESS+. Regarding satellite protection and active defence, work is underway to precisely define the EGIDE programme's system architecture (phase B).

> participants from 15 nations for the AsterX 2024 exercise.

ASSURING SAFETY AND SUSTAINABILITY OF SPACE OPERATIONS

With increasing space traffic and emerging activities like constellations and in-orbit servicing being driven by New Space, CNES is working closely with the military to ensure a clear situational picture of space. At the same time, it is the linchpin of the French Space Operations Act (FSOA), which governs safety of space operations on the ground and in orbit. The act now also covers the constraints and risks that come with New Space.



To provide clear and permanent space situational awareness, CNES maintains a catalogue of space objects for the CDE. To this end, we use data from our international partners, the Graves radar, the French national scientific research centre's TAROT telescopes and Europe's EU-SST programme, which our agency chairs. With this domain now opening up to commercial competition, CNES, with the backing of France 2030, selected five French projects in 2024 after a request for proposals concerning space surveillance data catalogues.

To date, more than 400 satellites are under close watch for potential conjunctions by CNES's COSE operational space surveillance centre, which also tracks high-risk atmospheric re-entries. Alongside this permanent monitoring effort, CNES is also testing a range of technology innovations through the Tech4SpaceCare programme to mitigate space debris during re-entries.

conjunction alerts issued by COSE in 2024 gave rise to 24 orbital collision-avoidance manoeuvres.

24

satellites launched in 2024 under FSOA authorization.

FSOA AS A REGULATORY TOOL

Since 2008, the French Space Operations Act (FSOA) regulates and oversees national space activities. As a key player in enforcing this act, CNES worked with overseeing ministries to update its regulatory provisions and tailor them to the New Space context. The FSOA's new technical regulations are the culmination of a four-year effort and came into effect on 1 July 2024.

The FSOA tasks CNES with processing all authorization requests for space operations and confers policing powers on our agency at the CSG to ensure range safety. CNES's satellite FSOA office processed 20 orbital system case files in 2024, including requests for authorization to return to Earth, preliminary compliance checks, mission extensions, retirements from service and analysis of in-orbit technical incidents. Our launcher FSOA office was kept busy with compliance analyses for Ariane 6's first flight and the return to flight of Vega-C. Both provided significant support to several start-ups developing orbital systems and micro-launchers, which are required to comply with the FSOA's technical regulations.



In today's digital world, satellite data and their rich innovation potential are crucial to sovereignty, informing public policies, spurring economic growth and supporting scientific research, notably in response to our changing climate. Complementing its efforts to promote and drive development of value-added services, in 2024 CNES rolled out the GEODES portal to embed Earth-observation data within the national and European ecosystem.

GEODES is a one-stop shop for Earthobservation data catering to all user
communities. The portal provides access
to data from satellites to which CNES is
contributing—like SMOS, IASI, CFOSat,
and soon CO3D and MicroCarb—as well
as the European Copernicus programme's
Sentinel satellites, thus replacing the PEPS
product exploitation platform. From datasets to services that render them readily
usable and on-demand processing, the
agency is supporting all application sectors
and the development of high-added-value
services mining the rich vein of information
that these data contain.

As CNES is actively contributing to the Data Terra research infrastructure, GEODES naturally serves as a gateway to the Data Terra portal and its five data hubs, as well as the DINAMIS structure offering a bouquet of very-high-definition commercial data (SPOT, Pleiades). The platform is set to rapidly add new datasets and features.

CNES also initiated development in 2024 of a Small Bodies data and services hub for the universe science community.

In addition, a new commercial operator is being lined up to create a space data marketplace.

Learn more: https://geodes.cnes.fr

—— Economic competitiveness

25

ECONOMIC COMPETITIVENESS

DRIVING DEVELOPMENT OF THE FRENCH AND EUROPEAN SPACE ECOSYSTEM

A burgeoning space market is spawning numerous new firms, while almost all segments are undergoing deep economic and technological transformations. To nurture a comprehensive, topflight ecosystem, several CNES programmes are fostering French innovation and industrial competitiveness, notably in the satcoms market.

SUPPORTING THE NATIONAL SPACE INDUSTRY

CNES supports, leads and structures the entire national space ecosystem, spanning large primes to new entrants, SMEs and mid-tier firms. In addition to the government's strong backing, we are deploying a range of mechanisms to encourage private investment.

NEW SPACE APPLICATIONS

Be it for agriculture, land and urban planning, early-warning systems, transport or resource management, satellite data from the downstream sector are fuelling new high-added-value services across the board.

70,000

jobs created by the French space ecosystem, 32,500 in manufacturing and 29,500 in services.

7**9**

start-ups supported by CNES in 2024.

requests
for proposals
to implement
demonstrators
of operational
services
supporting
public policies.

The Kineis Internet of Things (IoT) constellation of nanosatellites.

SUPPORTING THE NATIONAL SPACE INDUSTRY

In close partnership with its overseeing ministries, CNES is a key player of the government's space industry policy, directing innovation policy through its major contribution to space R&D, accelerating development cycles, leading the ecosystem and providing financial and technical support for high-potential firms, including newcomers to the sector.

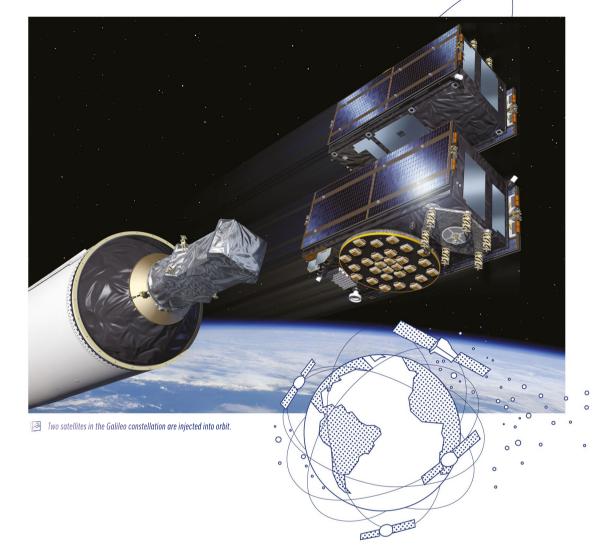


A nanosatellite from the Kineis constellation in the clean room at Hemeria

In the richly rewarding but highly competitive space telecommunications segment, CNES has been supporting large primes Airbus Defence & Space (ADS) and Thales Alenia Space (TAS) for many years, backed by national investment plans. The two firms have become world leaders in geostationary telecommunications satellites, securing more than 50% of the commercial market in recent years. Their latest innovations in flexible all-digital satellites—Onesat for ADS and Space Inspire for TAS—are continuing to advance their development. Through the MUSTANG R&D programme initiated in 2024, CNES is currently laying the groundwork for national satcoms solutions compatible with 5G NTN and 6G standards.

The other main satcoms niche is constellations, with the launch in 2024 of the first 15 Kineis satellites. This low-Earth-orbit constellation, the culmination of an initiative engaged by CNES and CLS in 2018, guarantees connectivity and precise location of millions of objects anywhere in the world, in near-real time. Kineis thus serves crucial civil and military sectors like maritime surveillance, wildfire detection, agriculture, infrastructure monitoring and tracking of goods. From its Toulouse Space Centre, an integrated CNES-Kineis team is deploying and configuring the constellation in orbit. The agency is also helping the firm to develop a dedicated control centre.





Meanwhile, Europe's IRIS² secure connectivity constellation is also on the rails, with the award in 2024 of a first concession contract to the European Space Rise consortium. CNES has offered to host an IRIS² operations control centre at its Toulouse field centre.

The four Galileo satellites launched in 2024 have enabled Europe's geopositioning constellation to reach its nominal configuration of 27 operational satellites, followed in 2025 by the declaration of full operational capability for the Open Service and the opening of the Public Regulated Service (PRS). CNES is notably in charge of the GEMOP programme (Galileo and EGNOS Monitoring of Performances).

26

licence agreements for CNES patents and software signed in 2024, 13 for free.

private funding rounds completed in 2024 via CNES (Space Ticket, CosmiCapital and SpaceFounders), securing a total of €272 million.

Economic competitiveness **NATIONAL ONE-STOP SHOP FOR NEW ENTRANTS** Space and its many applications are every day to provide expertise and data proving increasingly attractive. To channel processing software. In addition, the and structure demand. CNES has set up Toulouse Space Centre is refurbishing a special committee for new entrants technical infrastructures and test platforms, to guide them and provide a point of and upgraded its satellite integration clean contact at the agency. The ecosystem is rooms in 2024. And, as it has every year also benefiting from the support of eight since the event's inception, CNES was a Connect by CNES services, from ideation key partner of the Assises du New Space to completion and help with investment, summit on 25 and 26 June at the CNIT incubation, acceleration and technical Forest conference centre in Paris. support. In this respect, the agency offers a range of resources for firms, including the **CESARS** telecommunications applications laboratory and the Lab'OT laboratory for **Description** Learn more: www.connectbycnes.fr Earth observation, which is called on Avec le CNES, ensemble innovons! cnes

NEW SPACE APPLICATIONS

Reliable, repeat satellite data from around the globe hold great potential for business and applications. Combined with other datasets and the power of digital technologies, they are spawning a wealth of high-added-value services across all sectors. Complementing the GEODES data portal opened in 2024, CNES is striving to structure and position the French ecosystem in the burgeoning space applications market.

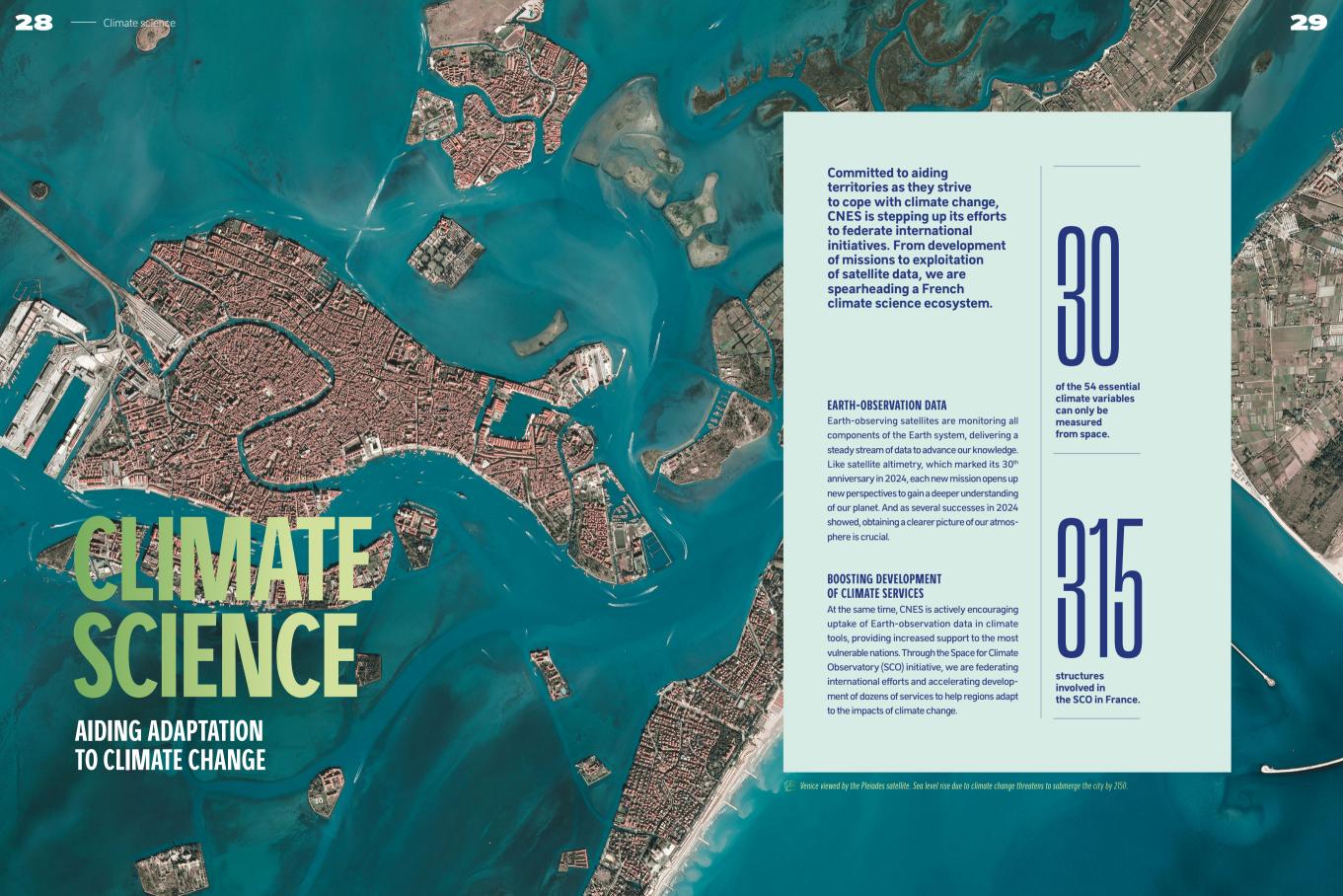
Focusing on services supporting public policies, CNES issued seven requests for proposals in 2024, funded by the space strand of the France 2030 plan, to deliver demonstrators of operational services in the fields of hydrology, maritime surveillance, crisis management and monitoring, economic indicators, night vision, coastal strips and the Internet of Things (IoT). These national priorities were defined after the call for expressions of interest issued in 2023.

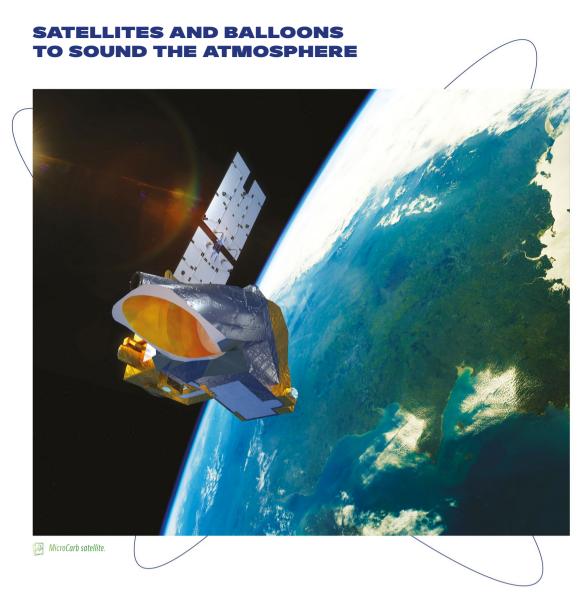
Illustrating the growing interest in space's potential, in November 2024 CNES signed an agreement with French rail operator SNCF to use space in managing rail infrastructures and services. Closer ties also continue to be forged with the digital ecosystem, with the signature of a strategic partnership agreement at the start of 2024 between INRIA, the French national institute for research in computer science and control, and CNES. In particular, work has started in the domain of digital twins.





To anticipate and factor in applications in the early stages of development of future Earth-observation missions, CNES has also set in train its Ambition Aval (Downstream Ambition) initiative. This is open to the national ecosystem, helping to encourage uptake of unprecedented data from missions to come, like MicroCarb and Trishna, to serve planned applications and spur new ones.



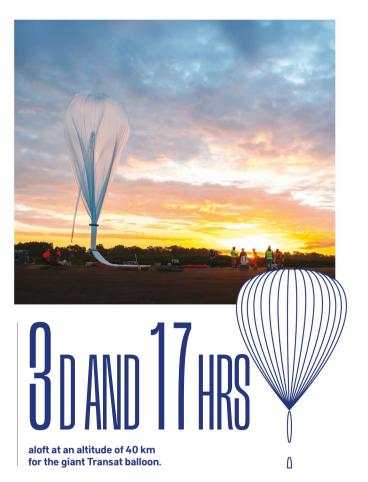


Carrying sensors designed specifically to measure global sinks and sources of carbon, the MicroCarb satellite developed jointly with the UK Space Agency (UKSA) completed ground acceptance tests. In readiness for the calibration and validation phase of the mission, CNES led a unique survey campaign over the summer of 2024 with support from the LSCE climate and environmental science laboratory and the MONARIS laboratory to measure atmospheric concentrations of carbon dioxide and methane at the Pic du Midi in the French Pyrenees. MicroCarb was successfully launched from the Guiana Space Centre (CSG) on the night of 25-26 July, sharing a ride with the CO3D optical constellation, also eagerly awaited by terrain mapping and urban modelling applications. Meanwhile, the IASI-NG new-generation infrared atmospheric sounding instrument, delivered by CNES to the European Meteorological Satellite Organisation (Eumetsat), is now flying on the first Metop-SG satellite launched by Ariane 6 from the CSG on 12 August 2025.

CNES's Board of Directors also gave the go-ahead in July 2024 to develop France's contribution to the international Atmosphere Observing System (AOS), which will include an innovative tandem of radiometers.

Another high point of the year, illustrating how government and industry are complementing one another to develop innovative projects, came with the first flight tests on 30 October of the BALMAN manoeuvrable stratospheric balloon from the Guiana Space Centre. Designed and built by French firm Hemeria with oversight from CNES, this balloon will be capable of loitering at high altitude (several tens of kilometres) over an area of interest for much longer than a drifting balloon or an aircraft. It will find applications with a multitude of civil and military users in weather forecasting and monitoring of high-risk areas.

Four months earlier, on 26 June, CNES released Transat, the first stratospheric zero-pressure balloon (ZPB) capable of crossing the Atlantic, from Sweden to Northern Canada. Carrying eight scientific instruments powered by a small number of batteries thanks to the MEDOR renewable energy demonstrator, Transat significantly enhances the flight performance of ZPBs. The eco-friendly and rapidly deployable solution enables CNES to envision a new type of service for more scientists.





The Transat flight gondola is retrieved from Baffin Island, Canada.

WATER A MAJOR ISSUE

2024 marked the 30th anniversary of satellite altimetry, the only technology capable of measuring global sea level rise. Following in the tracks of great names like TOPEX/ Poseidon and the Jason series, this adventure initiated and constantly enhanced by the pioneering agencies CNES and NASA today continues in the shape of the remarkable SWOT (Surface Water & Ocean Topography) satellite. With its exceptionally precise oceanography and hydrology measurements. SWOT is able to detect ocean eddies ten times smaller than its predecessors and observe almost all of the globe's freshwater resources. ESA has chosen the wide-swath altimeter concept on which SWOT is based for its Sentinel-3 NG Topo mission. Lastly, aiming to step up space solutions for oceans, CNES launched the Space4Ocean Alliance (S40) initiative at the end of 2024, officialized at the UN Ocean Conference in June 2025.



SWOT satellite.



BUILDING CAPACITY IN SOUTHERN NATIONS

Since 2020, CNES has been coordinating the European Working Group Africa, which has already trained 30 African instructors to use Copernicus data. In 2024, these instructors led dedicated training sessions for more than 1,000 learners in 12 African nations.

REVEALING METHANE EMISSIONS

In 2024, with support from CNES and ESA, French firm Kayros opened Methane Watch, the first global platform providing daily monitoring of large methane leaks (more than 100 kg/hour), notably with data from the Sentinel-5P, S2 and S3 satellites. These data reveal that the frequency and extent of super-emitters are up to ten times greater than we thought. They could now support concrete actions to apply the commitments of the Paris Agreement on Climate and significantly reduce greenhouse gas emissions in the short term.

SCO BRIDGING CLIMATE DIPLOMACY AND OPERATIONAL TOOLS

Created in 2019 on the initiative of CNES, the Space for Climate Observatory (SCO) is a perfect illustration of how satellite data can be combined with in-situ data. Every year, the SCO accredits and supports projects all over the globe proposing real-world solutions aimed at helping local decision-makers adapt to the impacts of climate change.

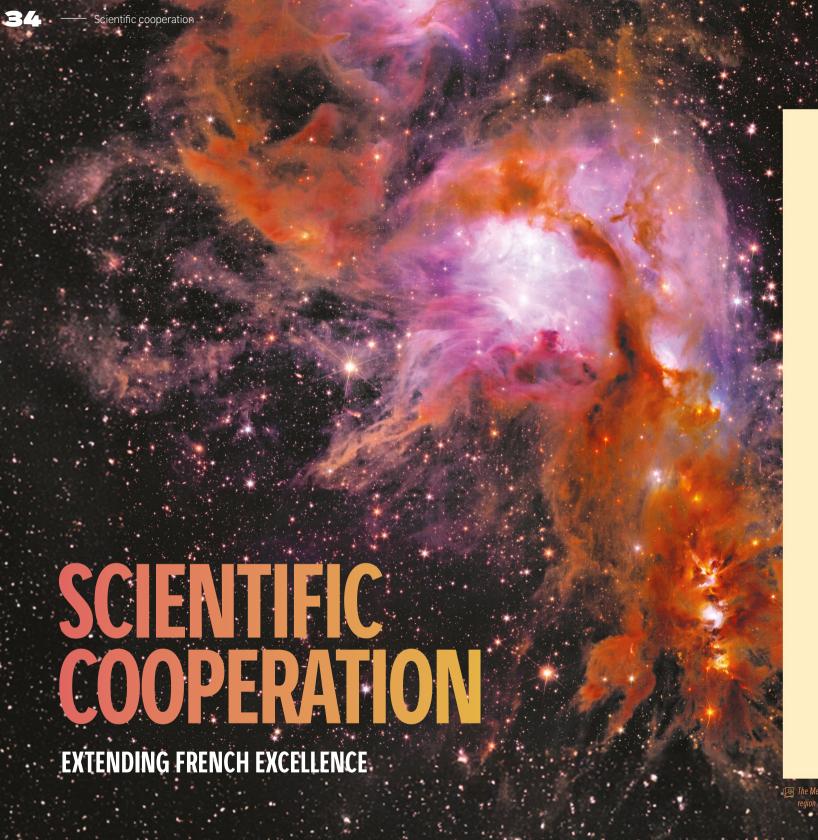
Joined by three new signatories in 2024, the alliance brings together 50 international partners, including several UN bodies. With active support from CNES, which serves as its general secretary, the SCO is a prime mover on the international stage. In the past year, it notably organized a plenary session at IAC 2024, where it was distinguished with the Eurisy Hubert Curien Award for outstanding efforts in promoting uptake of space technologies by society. Its contribution to the UNOOSA 2024 Space4Climate forum also offered the opportunity to set in motion the Global Awareness working group led by UNOOSA, with the aim of boosting the visibility of the SCO and its

Administered by CNES, the French branch of the SCO led the way in 2024 with a portfolio of 68 projects, 34 of which have already been completed. Tools provided often take the form of mapping platforms aiding interpretation and analysis of results, and are accessible via the Toolbox on the SCO's website. The SCO France community today counts 315 partners, including 228 French entities and 87 international collaborations. CNES is leading this community by organizing quarterly project webinars and roundtable sessions at national events like GeoDataDays and the Mayors and Local Authorities Show.

of French SCO-accredited projects since 2020 have delivered operational solutions and demonstrators.

Learn more:

www.spaceclimateobservatory.org/fr



Space science research has always been a strategic line of action for France and CNES, which is tasked with leading and planning the nation's efforts in this domain. The agency's support spans the entire life cycle of space missions, working closely with national research laboratories conceiving often first-of-akind instruments. And our contribution to European and international missions is consolidating and projecting the excellence of the French scientific community.

To maintain this level of excellence through ambitious planning, CNES brings together and consults with the space science community every five years at its Science Survey Seminar. The latest of these was held in Saint-Malo in 2024. More broadly, the last year saw a string of successes in both universe science and space exploration, encompassing the science and technology challenges of sending crews or robotic precursor missions into space.

French laboratories are contributing to the European Euclid mission to compile the most precise 3D map ever of the universe.

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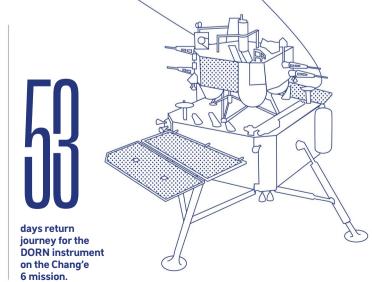
laser shot of the French ChemCam instrument on the Curiosity rover surveying Mars.

If the Messier 78 Nebula, a star nursery pictured by the Fuclid space telescope. This unprecedented image is the first view of this young star-forming, region at this scale and debth.

MISSIONS WITH INTERNATIONAL PARTNERS



DORN (Detection of Outgassing RadoN), the first active French instrument to operate on the lunar surface, was launched on 3 May 2024 on China's Chang'e 6 mission. The lander successfully set down on the Moon, collecting and then returning to Earth samples from the far side of our nearest neighbour—a world first. The French and Chinese teams worked together in perfect harmony, with DORN aiming to probe the origin and dynamics of the very tenuous lunar atmosphere and the thermal and physical properties of the lunar surface, acquiring measurements of radon and polonium, first from orbit and then after landing. Analyses are ongoing and have not detected any trace of radon at the landing site at this stage.



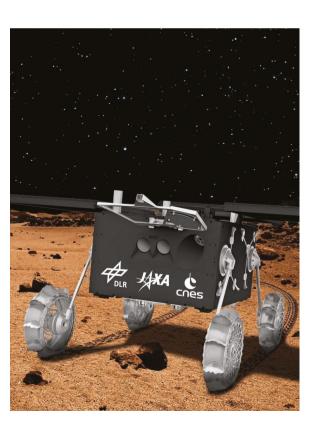


SVOM (Space-based multi-band astronomical Variable Objects Monitor) was another Chinese-French success that lifted off on 22 June 2024 to study gamma-ray bursts (GRBs), the most distant and powerful star explosions in the cosmos. To accomplish this mission, it is notably carrying two French telescopes, ECLAIRS and MXT, to detect and locate GRBs and then observe them. The in-orbit commissioning phase confirmed the detection of numerous events, while the French VHF ground segment is fulfilling its role of alerting and cueing ground telescopes around the globe when a GRB is spotted.

In the first quarter of the year, CNES delivered to the Japan Aerospace Exploration Agency (JAXA) the French MIRS spectrometer and the small IDEFIX® rover (developed jointly with the German space agency DLR). They will take their place in 2026 on the MMX mission (Martian Moons Exploration) to Phobos and Deimos.

Goal: characterize the moons' surfaces and land on Phobos, where the gravity is

weaker than on Earth.



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MISSIONS WITH EUROPEAN **PARTNERS**

ESA's Hera mission took flight on 7 October 2024 to the Didymos/Dimorphos binary asteroid system, to investigate its geophysical characteristics and ascertain the effects of the impact of the U.S. DART mission close up. Working alongside the French laboratory that built the mission's sounding radar, CNES is supplying spaceflight dynamics studies and will perform proximity operations for the two nanosatellites.

End May 2024, ESA released the eagerly awaited first images from the Euclid mission launched mid-2023. Thanks notably to its two French spectrometers, this mission is seeking to observe the large structures of the universe and reveal dark matter and dark energy which, although we can't see them, are known to make up 95% of the universe. These unprecedented data, equivalent to one day of observations, provided the material for six scientific papers, for which half of the lead authors were French research scientists.

On the programmatic front, CNES's Board of Directors meeting in March 2024 gave the go-ahead for the development phases of France's contribution to the European LISA mission to observe gravitational waves. CNES and the French scientific community are charged with checking the payload's performance prior to launch and have overall responsibility for data analysis, putting them at the forefront of one of the most ambitious missions in the coming decades.





SCIENCE SURVEY SEMINAR

In early October 2024, the Science Survey Seminar (SPS) brought together 400 people from the space science community in Saint-Malo. Held every five years and chaired by CNES's Science Programmes Committee (CPS), this event reviews scientific advances since the previous edition and charts the course of national space science research for the next five years. Sixteen working groups put forward their recommendations on numerous aspects of French space science, including for the first time human and social sciences in space. The Saint-Malo SPS also saw CPS chair Gilles Bergametti from the LISA inter-university laboratory for the study of atmospheric systems (CNRS) hand over the reins to Jean-Marie Hameury from the Strasbourg Astronomical Observatory (ObAS).

SPACE EXPLORATION AND HUMAN SPACEFLIGHT

In the field of human spaceflight, CNES's CADMOS centre for the development of microgravity applications and space operations conducted its 67th parabolic flight campaign, gathering a wealth of data in weightless conditions from 15 scientific experiments for astronaut Sophie Adenot's six-month mission planned for the spring of 2026. The preliminary study phase for a recoverable cargo spacecraft operating in low Earth orbit also got underway in 2024, with the selection of two contractors for France's contribution. This programme marks the first step in strengthening Europe's independent space exploration and human spaceflight capability.

Soleil fonctionne et

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CSR IN ACTION AT CNES

CNES's corporate social responsibility (CSR) policy strategically underpins all of the agency's activities and field centres, spanning the three social, economic and environmental pillars of sustainable development. It also includes concrete and measurable actions.

OFFSETTING CARBON EMISSIONS

To offset emissions generated by air and rail business travel, CNES has instituted a "carbon contribution". For the second year running, we paid a contribution of €100 per tonne of CO₂ emitted by business trips, providing funding in 2024 for operations to restore forests and mangroves, achieving VCS (Verified Carbon Standard) and CCBA (Climate, Community and Biodiversity Alliance) accreditation. A second wave of investments engaged in 2024 is funding in-house actions designed to accelerate the agency's ecological transition, notably through improved energy efficiency of infrastructures. use of renewable energies and energy recovery technologies.



DECARBONIZING THE SPACE SECTOR

Mandated by Minister Bruno Le Maire in November 2023, CNES, alongside the French enterprise agency DGE and partners from the CoSpace government-industry space coordination committee, worked hard throughout 2024 to draw up a roadmap for the decarbonization of the space sector. This was released and presented to the space sector at the Paris Air Show in June 2025, giving new momentum to CNES as we step up our cooperation with all stakeholders to make space more sustainable.





BEING DIGITALLY RESPONSIBLE

In 2024, CNES conducted the first audit of its information system at all field centres to measure in terms of quantity and quality the agency's digital environmental footprint. The audit's findings will inform our digital responsibility strategy and roadmap to address key issues in this domain starting in 2025.



PROMOTING AND PRESERVING **BIODIVERSITY**

CNES organized a space and biodiversity event with external stakeholders in French Guiana in December 2024, the aim being to take closer account of biodiversity in the launch base's industrial projects, to further observation of ecosystems using satellite data and to raise the public's awareness of the richly diverse local biodiversity. The agency also completed a study in 2024 on its goal to achieve zero land take at its Toulouse and French Guiana field centres.

CONTINUOUSLY IMPROVING **MANAGEMENT SYSTEM**

After renewing CNES's ISO 9001 quality and ISO 14001 environment certifications in 2023, French certifying body AFNOR conducted a first surveillance audit in 2024 of a three-year cycle. Processes and directorates assessed confirmed the good performance of the agency's Management System.

The auditors' report underlined the good level of cohesion between directorates in understanding the context, challenges and assessment of risks. The agency's commitment to achieving continuous improvement, in line with the priorities of our Objectives & Performance Contract (OPC), was demonstrated by changes to the planning process and its well-identified links in formalizing technical policy, and by the close integration of CSR across the organization.



SUPPORTING SOFT MOBILITY

Since 2024 CNES has started providing bicycles for personnel at its field centres in mainland France through a 36-month subscription including bicycles, accessories, maintenance and insurance, for which we cover 70% of the cost. Some 100 employees have already taken up this offer.



REDUCING SPACE PROJECT EMISSIONS IN THE UPPER ATMOSPHERE

As part of our plan to probe the effects of space activities in the upper atmosphere, we are funding a PhD thesis to gain deeper insights into particles generated by launches and atmospheric re-entries. This research work initiated at the end of 2024 is studying particle characteristics—diameter, refraction index, build-up over time, etc.—to better understand their impact.

SUSTAINABLE AND PROTECTIVE SPACE

IN-ORBIT SERVICES R&T CALL FOR IDEAS

explore solutions for recycling and reusing materials in satellites at the end of their life, to foster a circular space economy and reduce the environmental footprint of space activities.

4TH ASTERX MILITARY SPACE EXERCISE

2024 CSR ROADMAP RESULTS

This roadmap addresses CSR issues across the agency, as set out in our 2022-2025 Objectives and Performance Contract (OPC).

DEING DEING A RESPONSIBLE EMPLOYER

DIVERSITY & INCLUSION

- Women's leadership support programme: 3 sessions.
- Workshops to raise awareness about sexism and disabilities.
- Gender equality index: 90 / 100

EMPLOYEE TRAINING & AWARENESS

- 34.55% of employees completed CSR training.
- 3 new training programmes deployed: incorporating sustainable development in procurement processes, 2-Tonnes workshop, digital fresco.

DUCATION

- Awareness-raising for 935,000 youngsters (including 6,000 schoolchildren visiting the Guiana Space Centre).
- Direct involvement of **40,500 youngsters** in educational projects.
- 2.000 teachers trained.
- 100 ninth-grade students completed a one-week internship at one of CNES's four field centres.
- Fablab/Guyane Connect association:
 50 visiting students from Kourou IUT technology institute and 10 aeronautical baccalaureate students.
- Connecting French Guiana Bridging the gap: future classrooms connected by satellite in Grand Santi/Monfina, Providence on the Maroni River and Zidoc and Saint-Georges on the Oyapock River.

SHARED VALUE THROUGH SPACE

FRANCE 2030 GOVERNMENT PROGRAMME, SPACE AND RESOURCES STRAND

- Coastal strip monitoring:
 coastal morphology, ecosystems
 and sea state
- Night vision to monitor outdoor lighting, check its compliance and assess the impacts of light pollution
- IoT, notably to aid management of wildfire alerts
- Crisis management, notably for floods and wildfires

NEW ENTRANTS COMMITTEE

79 applications processed, applying CSR selection criteria.

REDUCING OUR ENVIRONMENTAL FOOTPRINT

SUSTAINABLE PROCUREMENT

56% of contracts awarded in 2024 include at least one environmental consideration (target of 100% by 2025).

BUILDINGS AND INFRASTRUCTURE

numerous refurbishment projects to improve overall environmental performance (energy consumption, renewable energy production, water consumption, mobility infrastructures, etc.).

ENERGY-SAVING PLAN

commitment to achieving 10% energy savings from 2024 (over 2019).

FIRST DIGITAL RESPONSIBILITY AUDIT

of CNES's information system.

BIODIVERSITY

new Act4Nature action plan.

SPACE SECTOR DECARBONIZATION ROADMAP

SUPPORTING REGIONAL RESILIENCE

SPACE FOR CLIMATE OBSERVATORY

68 projects awarded SCO France accreditation.

INTERNATIONAL CHARTER SPACE AND MAJOR DISASTERS

85 activations in 2024.

GEODES PORTAL

easier one-stop access to Earthobservation data from CNES and Copernicus programme missions.

LUCIOLES (FIREFLIES) APPLICATION

easier access for citizens to information on the environmental impacts of human activities.

HR: CUTTING ACROSS BOUNDARIES

Being a socially responsible employer and maintaining and developing the space sector's core skills are key stakes for CNES. In 2024, the agency accomplished a range of actions driven by a dynamic human resources policy.



BEING A SOCIALLY RESPONSIBLE EMPLOYER

Because we have made the well-being of CNES's people a priority, we instituted our first employee survey in April 2024. This initiative, set to be renewed every 18 to 24 months, will offer the chance to build a collective picture of quality of life and work conditions at the agency, and above all to identify priority areas of improvement. It will also keep track of how perceptions change and the results of actions undertaken.

Among these, equality and inclusion are key concerns. We renewed our previous commitments with unions, signing a new gender equality agreement. We also signed a charter against domestic violence and joined the One In Three Women network led by the FACE foundation working to combat exclusion.

+ 50%

More than half of CNES's employees have received training to prevent moral and sexual harassment in the workplace.

In 2024, a mechanism was put in place for reporting and handling cases of moral and sexual harassment or sexist behaviour. The Avoiding Discrimination in Recruitment training module was also revamped.

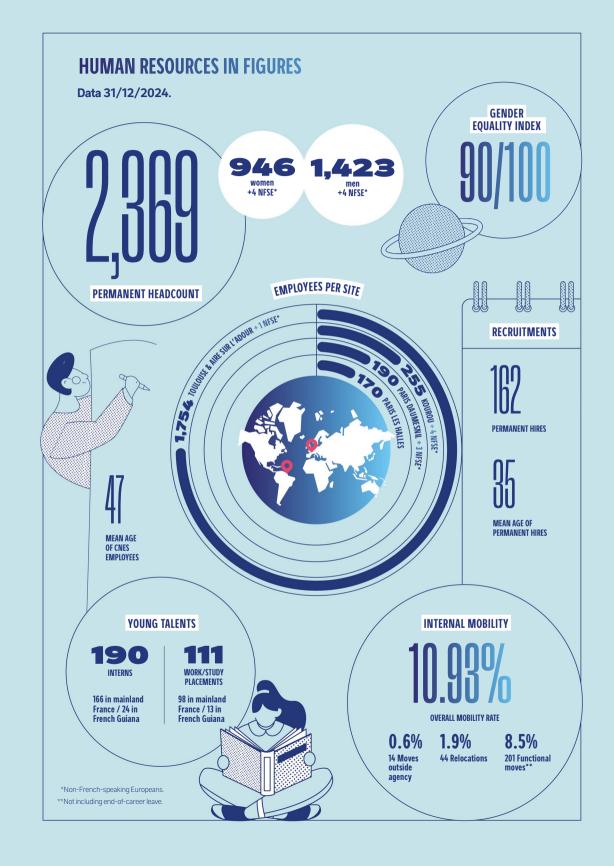
Likewise, the agency's action plan for employees with disabilities was renewed and stepped up. To this end, we are pursuing our participation in three forums dedicated to people with disabilities, welcoming and onboarding permanent hires, apprentices, interns and temp workers with disabilities, and organizing events and raising employee awareness.

MAINTAINING AND DEVELOPING SKILLS

As the agency seeks to change how it works and interact in new ways with a diverse ecosystem, the issue of skills development is a central one. The Strategic Workforce Planning (SWP) approach continues to be deployed, with a range of actions accomplished or initiated in 2024.

The classification of skills to be maintained, strengthened and nurtured will enable CNES to build more robust and structured career paths to obtain and develop the profiles it needs, while offering motivating perspectives for our people. This approach must also factor in the environment outside CNES to provide gateways for entering and leaving the space ecosystem.

The agency's Human Resources Directorate also reorganized its recruitment processes in 2024 to better respond to the challenges of developing skills and attracting and retaining new talents.



PROMOTING SPACE IN SOCIETY

CNES's external communication in 2024 focused on three main themes, reflecting the news cycle and supporting the agency's strategy: the stakes of space transportation, on the occasion of the first flight of Ariane 6: the space sector's ecological transition; and the strengthening of our youth education policy. This agenda was of course driven by the increasing influence of digital channels.



A fun educational workshop on orbits at the Guyaspace Expérience venue

SUPPORTING BUDDING SCIENTISTS

In French Guiana, as in mainland France, CNES attaches special importance to sharing science culture and supporting education curricula. After a two-year makeover, the Space Museum at the Guiana Space Centre re-opened its doors in August 2024 under the new name of Guyaspace Expérience. The new venue has already welcomed 13.000 visitors in its first six months. who have been treated to new exhibition spaces. topical workshops and events like the children's science congress, the Mars rover challenge or an "engineering for kids" feature. CNES's grants body also marked its 40th anniversary in 2024, with 25 new grants awarded for 2025. In all, since 1984 the committee co-chaired with the French Guiana education authority has awarded 203 excellence grants, 89 study grants and 34 apprenticeship grants.

In mainland France, the 2024 edition of the C'Space student event hosted the CanSat competition, where teams vie to pack the technology of a space probe into a volume equivalent to a soft drink can, and organized night launches of mini-rockets. Lastly, the 10th edition of the Universpace summer school brought together 50 students for three modules—astrophysics, system design and discovery—and as many virtually for the discovery module.

More broadly, CNES significantly enhanced its offering for youngsters, with the publication of new books and the production of two seasons of podcasts streamed on Radio France's Savoirs+ platform and the Merlin mobile device. Actions are also underway to offer more inclusive features, like CNES's contribution to the Rêve de gosses (Childhood dreams) initiative in 2024.

14

children completed a microgravity flight on the Zero-G aircraft operated by **CNES** subsidiary **Novespace** for the Rêve de gosses (Childhood dreams) project.

39 student space projects launched at C'Space 2024, a new record!

LIVE EVENTS

Ariane 6's first flight marked the high point of the year, followed, in addition to the live launch broadcast, by 4,000 people at the Cité de l'espace space theme park in Toulouse and at other venues in Paris and French Guiana. Across the Atlantic, CNES organized on 5 and 6 December 2024 in Sinnamary the first Space and Biodiversity business event (see page 41). The agency also took part in the first Toulouse Space Festival in May, where we gave visitors a virtual-reality ride through the cosmos on the JUICE probe, and our HR teams were on hand at the careers fair.



SURFING DIGITAL CHANNELS

Concerning the agency's digital communication, 2024 was marked by the roll-out in July of the new website (cnes.fr.). Clean, uncluttered and more modern, the revamped website also adopted the government's design template for greater accessibility. On the theme of space debris, we put on several fun and innovative features. The Space Sentinels role-playing game streamed on Twitch with influencers and video gamers was a notable success, garnering 300,000 views and rave reviews. Meanwhile, the Orbital Dance game for mobiles has been downloaded more than 10.000 times. Also worthy of note were new video series and podcasts for the lay public, like *Terre en vue(s)* (Earth in view), an educational series dedicated to Earth observation. More operations-oriented videos like ZL4 Explained presented the Ariane 6 launch facilities, while the Les Voix d'Ariane 6 (Ariane 6 voices) podcast shone a light on the people who contributed to its successful launch.



+61%

in traffic for new website in six months.

SOCIAL MEDIA REVIEW 2024



FACEBOOK

152,80

+8.700 | +6%





+12.300 | +7.8%



+24,000 | +16%

+4.340 | +4.3%

TWITCH

+1.400 | +6%

+2.230 | +35.2%

NEW PLATFORMS







WhatsApp

HEAD OFFICE PARIS LES HALLES

2, place Maurice Quentin 75039 Paris Cedex 01 Tel.: +33 (0)1 44 76 75 00

PARIS DAUMESNIL

52, rue Jacques Hillairet 75612 Paris Cedex Tel.: +33 (0)1 80 97 71 11

TOULOUSE SPACE CENTRE

18, avenue Edouard Belin 31401 Toulouse Cedex 9 Tel.: +33 (0)5 61 27 31 31

GUIANA SPACE CENTRE

BP 726 97387 Kourou Cedex Tel.: +594 (0)5 94 33 51 11

