

JUNE, 2025

LPS25

SPECIAL ISSUE:
HOW DO WE GET FROM DATA
FLOWS TO PRECISE ANALYSIS ?



DATA
TERRA



FOCUS :
DISCOVER 10 OPERATIONAL
SERVICES

OPEN SCIENCE, THE FUTURE OF
EARTH DATA



INDEX

04

THE FRENCH E-RESEARCH
INFRASTRUCTURE

08

SPECIAL ISSUE

How do we get from data flows to
precise analysis?

13

FOCUS

Discover 10 operational services

14

OPEN SCIENCE, THE FUTURE
OF EARTH DATA

Data Terra becomes EOSC Node

16

SCIENCE AND SOCIETY

Adapting and preserving forests in
response to climate change,
Cooperation and Dissemination

20

CONTACT LPS25

Inside

FROM THE DIRECTOR

”

The Earth is a complex system composed of subsystems spanning physical, chemical and biological environments, characterized by interacting processes over a broad time-space continuum. Observing, understanding and modeling in an integrated manner the history and functioning of the Earth system, and forecasting its evolution in response to global changes is a fundamental research challenge and a necessity for many environmental and socio-economic applications related to the accomplishment of sustainable development goals. Accessing, processing and combining these data in an integrated and dynamic manner is essential to address societal issues, whether they concern natural hazards, the anthropization of environments, climate change, resources or biodiversity.

Frederic Huynh

DIRECTOR OF DATA TERRA



The creation of DATA TERRA in 2016, as an e-Research Infrastructure (RI) dedicated to the Earth system and the environment, is a major French national collective ambition. It addresses the critical challenges of transparent, traceable, and integrated access to multi-source scientific data (spatial, in-situ, soil), and of processing them on demand, relying on a continuum of distributed and coordinated data service infrastructures.

DATA TERRA focuses on multidisciplinary observations and knowledge of the Earth system based on qualified science data and products, as well as innovative processing services from research communities and laboratories. It relies on resources organized into "data ecosystems" combining science and digital expertise, and incorporating storage and computing capabilities, including AI, to address research and societal challenges.

DATA TERRA provides, through unified portals, access to all of these standardized and interoperable data and products, and to advanced visualization and cross-referencing services to address interdisciplinary scientific and societal issues.

All of this ties in with the French national Research Infrastructure strategy included in the Ministry of Higher Education and Research roadmaps, and in European (EOSC, DestinE, etc.) and international initiatives. It also contributes to open science policies at the national and European levels, as well as to the ambition of building digital twins of the Earth.

The French E-Research Infrastructure



€42m
(2020)



+1000
products &
services



+15,000
users



100,000 TB
(2022/2023)



5 DATA AND SERVICES HUBS



Atmosphere

The AERIS hub draws on a heritage of more than 20 years. It is structured around four integrated and increasingly shared data and service centers. AERIS generates products from observations, and proposes numerous services to help with data use, survey campaigns or interfacing with models. Research in the atmospheric field addresses dynamics, physics and atmospheric chemistry.



Solid Earth

The FormaTerre hub aims to facilitate access to digital data and products from spatial and in-situ observation of the solid Earth, and to provide innovative services and tools for their discovery, processing and combined analysis with model outputs, encompassing various solid Earth disciplines such as ground deformation measurement, geochemistry/mineralogy, seafloor, geodesy, geology, gravimetry, magnetism, seismology and volcanology.



Ocean

The ODATIS hub brings together data management and scientific expertise activities in oceanography at the national level. Its objectives are to guarantee the long-term data record and facilitate the use of observation data in the ocean or at its interface with other environments, based on in-situ measurements and/or remote sensing. It thus contributes to describing, quantifying and understanding the ocean as a whole.



Biodiversity

The PNDB aims to provide a coherent set of tools and services to enable description, access, validation, analysis and reuse of biodiversity data for research communities, factoring in biodiversity over the long term, at all biological scales and in all its interactions.



Land surfaces

The THEIA hub facilitates access to environmental data and federates national scientific expertise around five major themes: cryosphere, surface waters, land cover, agro- and forestry ecosystems, biodiversity and advanced EO base products. Its current priorities encompass fostering uptake of all land surfaces data, managed by observation networks, research laboratories and non-academic stakeholders, producing and distributing value-added products and innovative processing services, and contributing to the monitoring of environmental assets at national and international scales for both academic and non-academic purposes.

3 CROSS-DOMAIN FACILITIES



Very high resolution imagery



FAIR data and services expertise



Science and society interface

Data and services

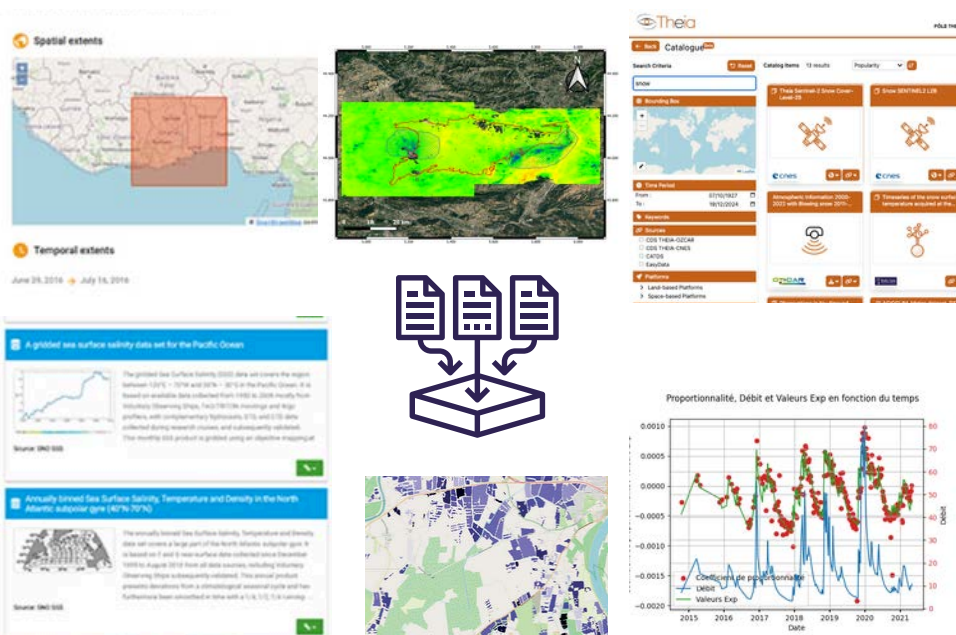


INNOVATION

Transfer and promotion of research



DATA TERRA is developing an innovation model based on knowledge sharing and the transfer of technological services to data.



Quick access to all data and services

By facilitating access to comprehensive and interoperable data, the data and services catalogs of DATA TERRA embody the principles of open science and cross-domain use of data to avoid thematic silos, while consolidating international scientific collaboration.

THE COPERNICUS PROGRAM IS VALUABLE FOR OPEN SCIENCE BECAUSE IT MAKES HIGH-QUALITY ENVIRONMENTAL DATA AND INFORMATION FROM SATELLITES AND GROUND MEASUREMENTS AVAILABLE TO EVERYONE, FREE OF CHARGE AND WITHOUT RESTRICTION.





© DATA TERRA AT EGU 2025



Connection with
producers
of data



Data Access



**Daily data
production**



**On-demand
analysis and
visualization
services**



**User support
services**



**Software sharing and
advanced Datalabs**



*Access the full agenda during LPS25 and
don't miss the demos on our stand*



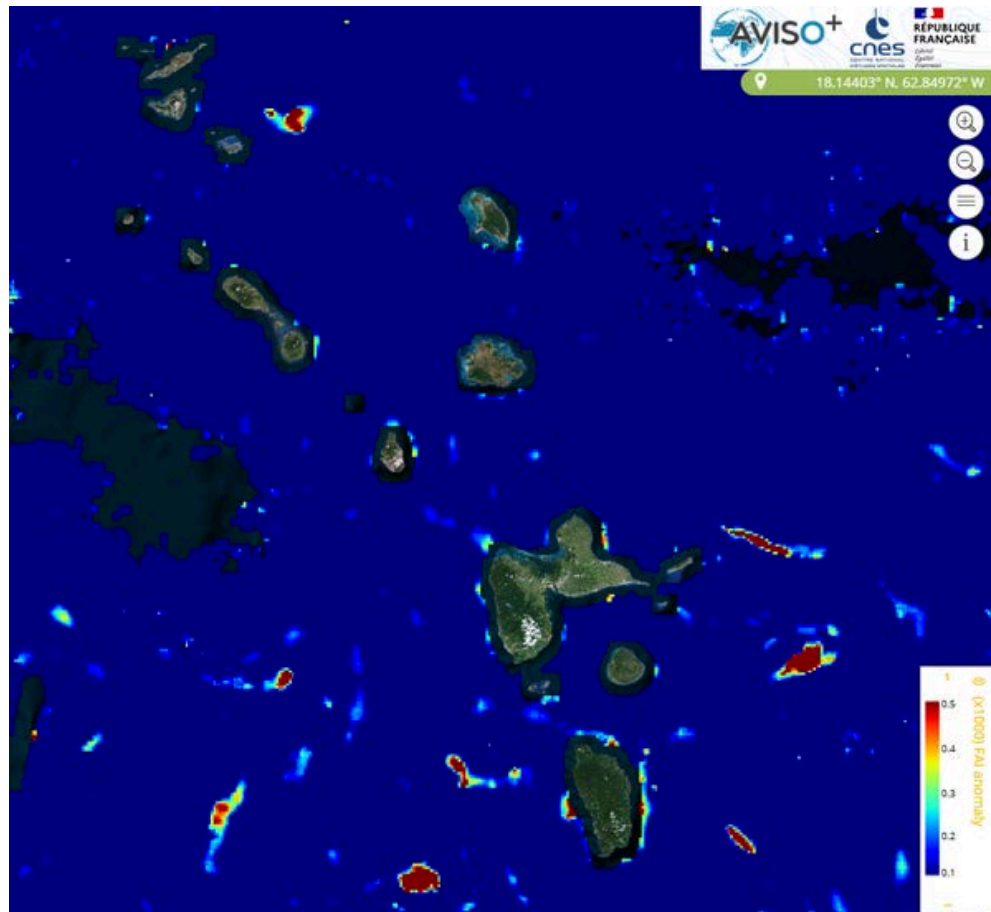
LPS25 DATA TERRA AGENDA - Integrated data to observe,
understand and model the Earth system

Special issue

HOW DO WE GET FROM DATA FLOWS TO PRECISE ANALYSIS OF EARTH PROCESSES?

For organizations dedicated to mitigating natural and anthropogenic risks and monitoring territories, access to reliable scientific expertise is vital. Forging alliances between Earth systems science and public operators is a major challenge for leveraging environmental data to manage risks associated with any hazards.

One of DATA TERRA's missions is to facilitate access, processing, and merging of data for scientific analysis of the Earth system.



Seawater Visualization Platform. Tool funded by CNES for CDS-AVISO, developed, maintained and operated by CLS.

DETECTION OF SARGASSUM BY SATELLITES

ATMOSPHERE



OCEAN

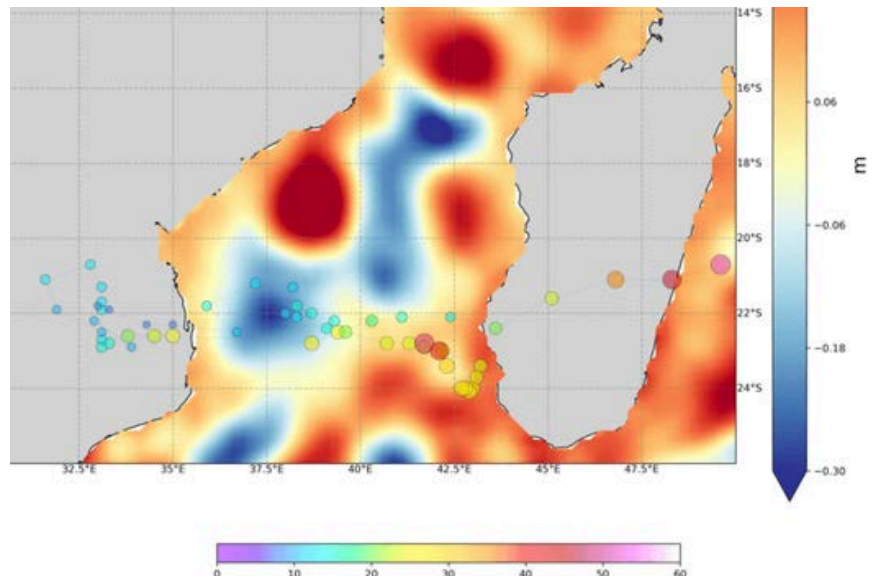


Several satellite missions are capable of detecting Sargassum rafts. Recent **research projects have developed optimized algorithms and processing chains for several types of products:** raw detection index maps, operational products, online bulletins, etc.

The AERIS and ODATIS data hubs offer several types of services to support these projects. The CDS-ICARE center at AERIS handles the processing and hosting of daily Sargassum cover distribution maps derived from MODIS-Terra and MODIS-Aqua observations over the Atlantic Ocean, calculated using the SAREDA algorithm.

The CDS-AVISO center at ODATIS manages the dissemination of composite products derived using data from multiple sensors and resolutions, and a Sargassum bed growth and movement model.

The ODATIS Ocean hub exploits and manages data that helped illustrate the exceptional scale of Cyclone Freddy. Data on this cyclone are freely available in the ODATIS catalog, based on the work of SHOM, CERSAT and AVISO. **On the AVISO website, it is possible to view the cyclone's progression and intensity using a range of physical parameters.** It reveals that wind speeds appear to be increasing in areas where sea level anomalies are higher. Here, we can see the track of Cyclone Freddy (small circles, wind scale in m/s) in the Mozambique Channel, superimposed on sea level anomalies measured by altimeters (in m) on March 7, 2023.



© SLA data: Copernicus Marine Service, track: Regional and Mesoscale Meteorology Branch (RAMMB) NOAA/NESDIS; figure: CDS-AVISO

PROGRESSION AND INTENSITY OF CYCLONE FREDDY IN THE INDIAN OCEAN

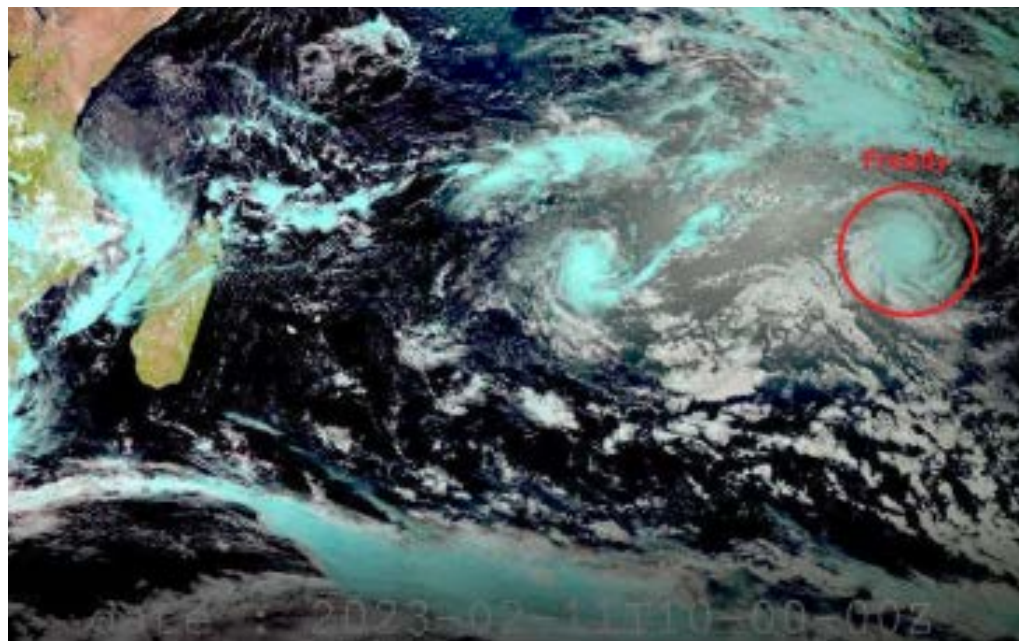
ATMOSPHERE

OCEAN



Cyclone Freddy will remain etched in our memories: at 30 days, the longest ever recorded; 8,000 km, among those having covered the longest distance; and with wind speeds of 209 and 252 km/h.

The AERIS atmosphere hub combines data management and scientific expertise in the atmosphere at the national level. Atmospheric research data are intended to be stored, distributed, and merged. Such data make it possible to record the causes and signs of climate change, better understand the chemistry and physics of our atmosphere, and probe interactions with other parts of the Earth system. **Cyclone Freddy was thus observed using geostationary satellite images.** An animation created by the ICARE data and services center shows the cyclone's exceptional track over 35 days, with its famous "loop" trajectory.



© EUMETSAT/AERIS/SATMOS/ICARE Cyclone Freddy observed by AERIS (2023)

CIEST²

Scientific and Technical
Intervention and Expertise Unit for
Geological Hazards,

Principle

CIEST² is a synergistic initiative involving the French community measuring ground deformations with satellite imagery, the FormaTerre Data Hub, and the French space agency CNES. It operates as a service designed to interpret, understand, and analyze geophysical hazards using spaceborne data, primarily through the rapid tasking of Pleiades stereo images, especially during geophysical crisis events.

EARTH OBSERVATION : MAJOR TOOLS IN THE FIELD OF NATURAL RISKS

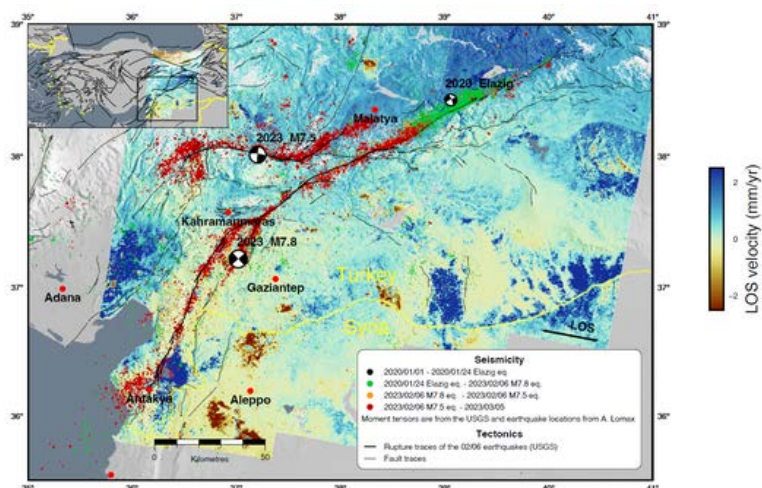
SOLID EARTH

LAND SURFACES



On Monday, February 6, 2023, two major earthquakes, each of magnitude greater than 7 on the Richter scale, struck Turkey and Syria. The International Charter on Space and Major Disasters, the Copernicus Emergency Mapping Service, and the FormaTerre CIEST² service were urgently mobilized to acquire Very-High Resolution optical images. The data and three processing services of the FormaTerre and THEIA hub as well as the Dinamis facility were mobilized too (see "Data processing"). One of the results obtained is the first high-resolution (10 m) terrain motion product to quantify the displacement of the Earth along and across the 40-km rupture.

The CIEST² service was also activated for the Sikkim (India) flood in October 2023. On the night of October 3-4, 2023, a flash flood devastated the Teesta Valley, resulting in the loss of numerous lives and the destruction of critical infrastructure. This event was triggered by the collapse of a glacial moraine into the pro-glacial South Lhonak Lake, generating an internal tsunami that breached the lake's natural dam. Approximately 50 million cubic meters of water were released, causing massive flooding and cascading landslides. Faced with this emergency, the activation of the CIEST² service enabled the acquisition of high-resolution Pleiades images of the affected area and the production of a digital surface model of this area by the **DSM-OPT** service coupled with CIEST² activations. Thanks to the **DINAMIS** facility, it was possible to access images prior to the flood, thus making it possible to produce detailed 3D models before the flood. These two sources of data and tools were essential for mapping the evolution of the event and quantifying the extent of the damage.



© DATA TERRA – FormaTerre, P. Derand (LG-ENS Paris), Mean velocity map across the East-Anatolian fault system (mm/yr, in satellite line-of-sight) over the period 2014-2021 calculated by the FLATSIM service.

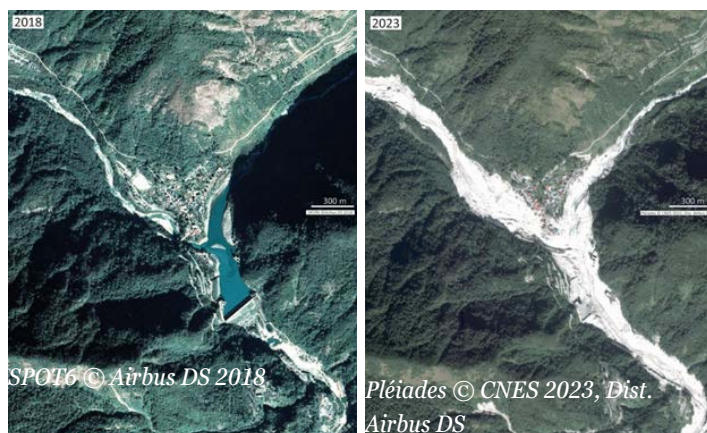
DATA PROCESSING



GDM-OPT FormaTerre Ground Deformation Monitoring with OPTical image time series : On-demand processing of Sentinel-2 image time series without having to download the images beforehand.

DSM-OPT FormaTerre and THEIA Digital Surface Models from OPTical stereoscopic very high resolution imagery. It is connected to the CIEST² system, which focuses on monitoring hazards. After image acquisition, the service is automatically launched.

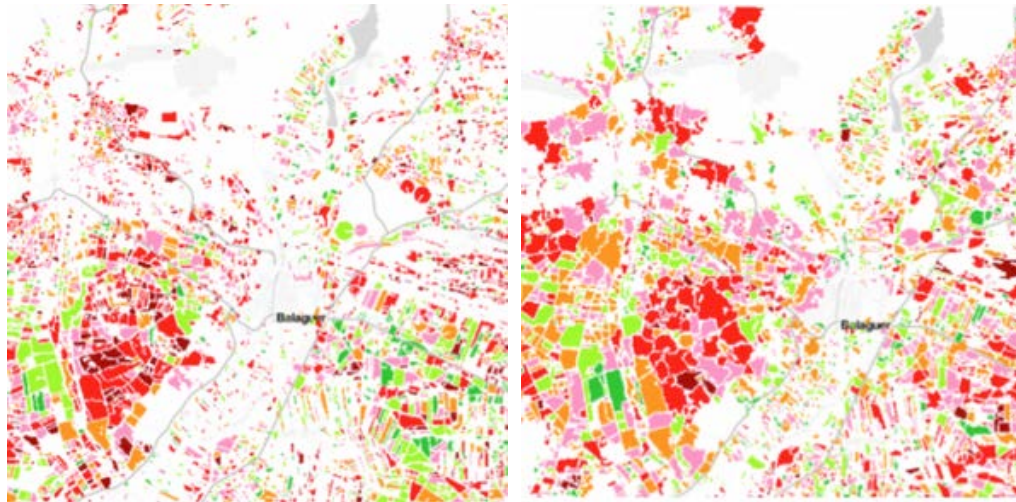
GDM-SAR FormaTerre Ground Deformation Monitoring with Synthetic Aperture Radar images: On-demand processing service to process radar images acquired by the Sentinel-1 satellites of the Copernicus program.



Before/after satellite images of Chungthang village, Sikkim and the Teesta III hydroelectric dam, showing the destruction of the plant and the damage to the village. The results of this CIEST² activation led to a major publication in the journal Science: Sattar, A., Cook, K. L., et al. (2025). The Sikkim flood of October 2023: Drivers, causes and impacts of a multihazard cascade. Science, eads2659, DOI

The extent of the drought is apparent in satellite images.

Various indicators are currently being developed within the THEIA land surfaces hub. Using Sentinel-1 and Sentinel-2 images, THEIA, in collaboration with INRAE, is producing a very-high-resolution (field-scale) and highly repeatable (1 map every 6 days) soil moisture monitoring product for a series of sites in Europe and around the Mediterranean basin. It is now possible to obtain these maps on demand thanks to re-optimized processing in the THEIA data and services center in Montpellier.



© DATA TERRA - THEIA. The extent of the red or dark red areas on June 3, 2022 (right), compared to June 3, 2021 (left), indicates greater drought in agricultural fields in Catalonia.

HEATWAVES IN EUROPE

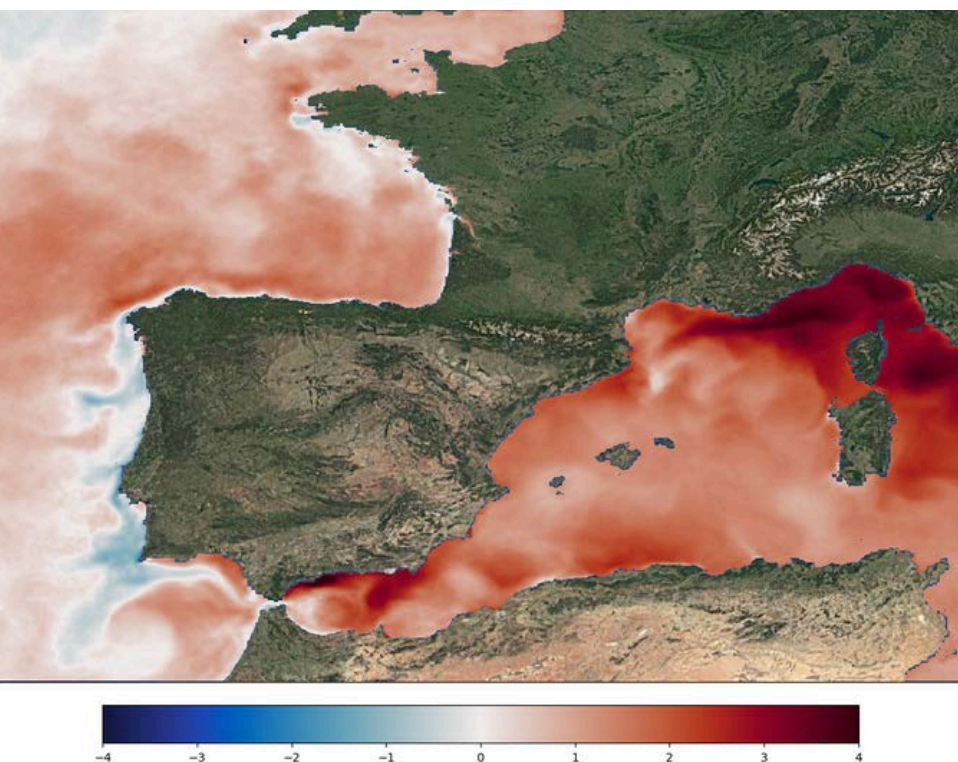
Detailed repeat satellite imagery now allows researchers to monitor and document complex phenomena like droughts.

LAND SURFACES

OCEAN



© DATA TERRA - Caroline Mercier



High-resolution satellite observations and in-situ sensors are able **to track marine heatwaves in the Mediterranean Sea** by measuring temperature from the surface to the seafloor.

Heatwaves can thus be observed in oceans and estuaries, with significant and sudden temperature increases impacting marine ecosystems. The data are freely accessible via the ODATIS catalog.

© Copernicus Marine Service CDS-CERSAT ODATIS – Piollé J.-F., Autret, E. (2021) Sea surface temperature anomaly from satellite data on Aug. 2024

Are data produced by research activities helping to bridge the gap between science and policy, and to address sustainable development challenges such as desertification and land degradation, climate change mitigation and adaptation, and biodiversity loss?

”

40% of the Earth's land area is degraded due to lack of water, affecting 2 billion people.

It is clear that access to environmental data via an open science framework is crucial, but building capacity to better integrate data and, more generally, knowledge is currently a complex issue for analyzing dynamics and providing solutions to global challenges.

Data must be produced, collected, analyzed, and made available for scientific use as well as for decision-making. **Regional organizations can play a strategic role in combating land degradation** and improving the resilience of dryland ecosystems and semi-local networks, particularly in developing countries.

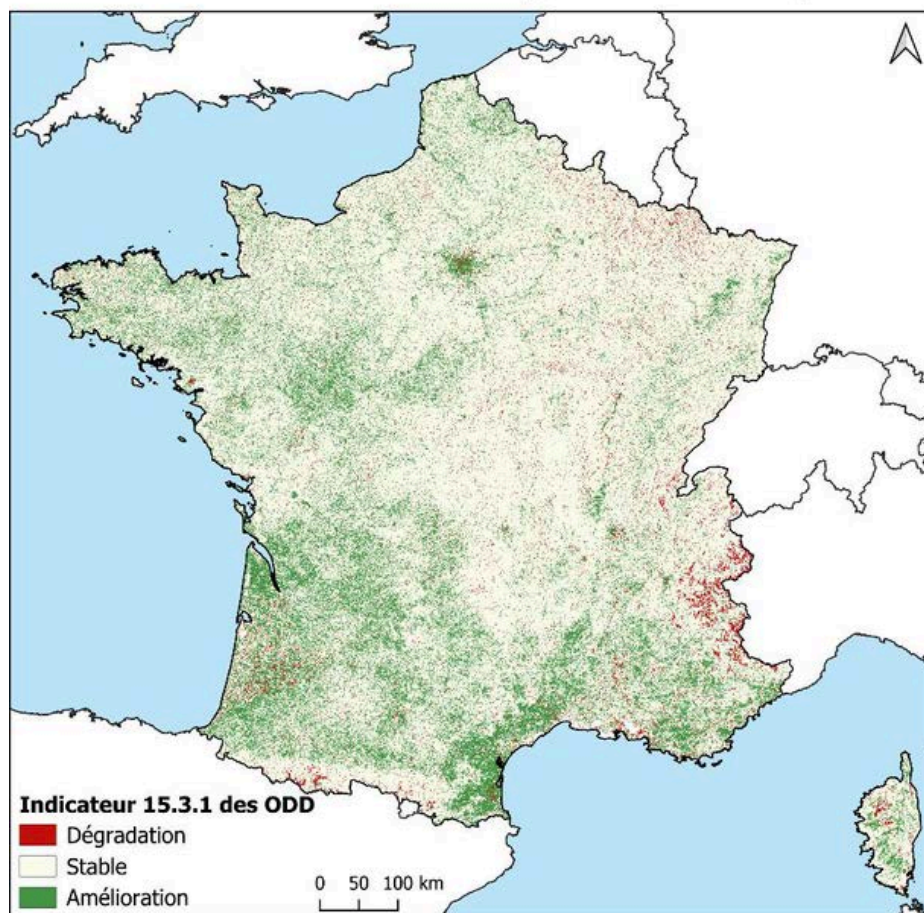
Interoperability, data coverage and accessibility, as well as knowledge integration are key issues for monitoring and reporting on desertification and land degradation. In preparation for the upcoming COP30 on climate change, the Brazilian delegation is promoting the ICID3 conference, to be held in September 2025 in Fortaleza, Brazil. The conference's objective will be to contribute multidisciplinary and collaborative scientific insights to the UNFCCC (COP30) policy framework.

Data-based research cooperation requires co-construction, particularly to improve practices and skills and to transfer knowledge between different countries and regions of the world.

DESERTIFICATION

LAND SURFACES

BIODIVERSITY



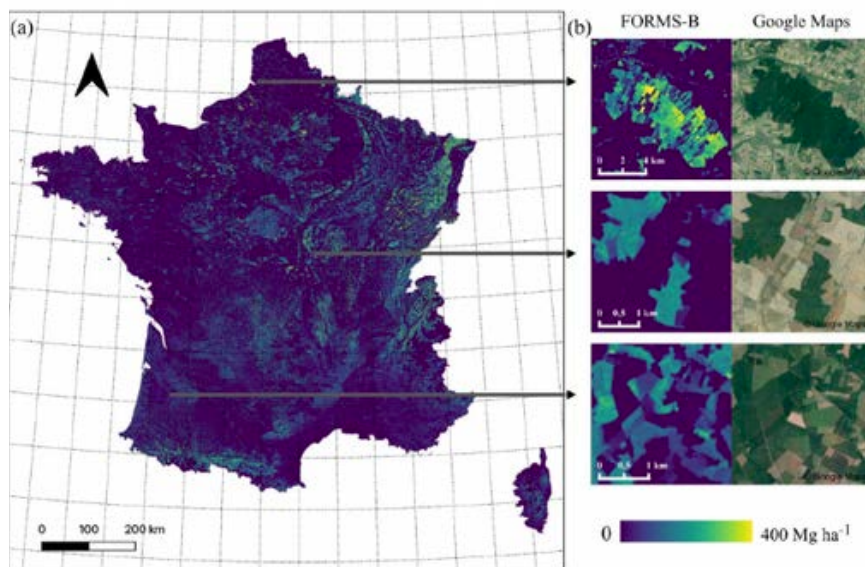
© DATA TERRA / THEIA, NITIDAE, CFSD. France Soil Degradation and desertification, 2008-2022, according to SDG 15.3.1 resolution 250 m

Mapping Desertification Indicators. The French government and Desertification Experts Council (CSFD) ordered, with oversight from Data Terra and THEIA, a survey of desertification indicators and monitoring by remote sensing for mainland France.

NITIDAE produced a state-of-the-art survey, discussing methods and data available, concluding that 3.2% of mainland territory is now affected compared to 2008. This survey was presented at Desertification COP 16.

Mapping forest height and biomass. Assessing the contribution of forests to carbon storage and biodiversity conservation requires precise mapping and monitoring of forest height and biomass in France.

With this in mind, INRAE is working with the THEIA hub on FORMS, a new mapping product available this year to access data on canopy height and above-ground biomass density.



© (a) Map of above-ground biomass density in France (2020) (b) Examples of above-ground biomass prediction at three different locations (left) with corresponding Google Maps images (right). Credits: Schwartz, M. et al., 2023)

TRACKING CARBON SINKS

LAND SURFACES

BIODIVERSITY



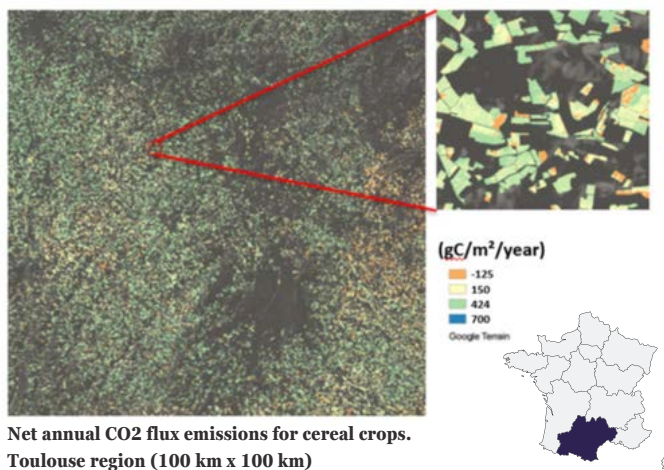
Natural carbon sinks are ecosystems that store atmospheric carbon, the main ones being oceans, soils, and forests. Reducing their biomass reduces carbon stocks and releases previously trapped CO₂ back into the atmosphere. Conversely, increasing biomass reduces CO₂. The work of scientists to understand these dynamic processes is of paramount importance in the years ahead. Below are some examples of research to which Data Terra is contributing.

Carbon storage in agricultural soils is a lever for achieving the goal of reducing net greenhouse gas emissions. Indeed, variations in plant cover directly affect the carbon fixed by vegetation and therefore by the soil.

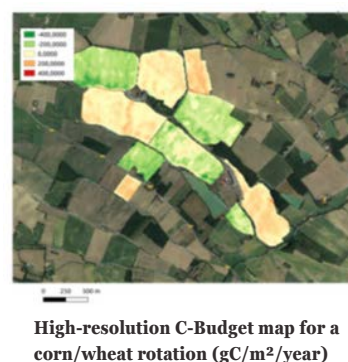
To measure the amount of carbon present in agricultural soils, a CESBIO team is working on **the development of a new tool: AgriCarbon-EO, the carbon balance of field crops.**

This project is involved in the Space for Climate Observatory (SCO) initiated by the French space agency CNES. It aims to develop a tool combining plant-soil models and remote sensing to quantify, at the field level, the additional carbon storage induced by cover crops, with a view to ensuring fairer compensation for farmers applying these practices.

The tool is being co-developed with stakeholders in the agricultural value chain and tested in the Occitanie region of Southwest France to prototype future services. Ultimately, the community will get free access, via a dedicated THEIA portal, to the prototype tool for quantifying carbon storage induced by intermediate plant cover and to the dataset to enable anyone to carry out their own assessments.



© CESBIO, CALMIP of the University, HAL of CNES. Example of high-resolution spatialized simulations obtained with the AgriCarbon-EO chain on the Sentinel 2 Tile in the Toulouse region (up) and on a farm in the Gers (right).



Focus

10 OPERATIONAL SERVICES TO DISCOVER

Strategic tools designed to provide a global and exhaustive overview of earth system data



© DATA TERRA / DINAMIS. The dinamis antenna in Montpellier, France



TerEcoData Terrestrial Ecology Data

On-demand service. Advanced indicators of ecosystem properties from high-resolution Sentinel-2 time series.



TRY IT NOW

Hydroweb NEXT

Portal service. A web platform to access for space-based hydrological data.



TRY IT NOW



Fr-OOS

A dynamic dashboard designed to provide a global and exhaustive overview of Ocean long-term *in situ* observation data.



TRY IT NOW

Geobrowser

Dataview of medium resolution satellite water color and other variables products, download, compare with *in situ* data (SNO-ILICO)



TRY IT NOW



VOLCPLUME

A web platform for monitoring volcanic plume with satellite and ground data



TRY IT NOW

GEOVIEW

Data visualization of the 5 geostationary satellites



TRY IT NOW



FormaTerre
DATA TERRA

THE GEODESY PLOTTER

Geodetic Products Visualization Service
Accessible without authentication



TRY IT NOW

DSM OPT Digital Surface Models from OPTical stereoscopic very-high resolution imagery. Cross-domain on-demand processing service operated by the FormaTerre hub, in collaboration with THEIA and DINAMIS.



TRY IT NOW



Ecology Galaxy

A web platform to get, process, analyze and visualize ecological data.



TRY IT NOW



DINAMIS APPLICATION

A web portal to download very high resolution imagery. Account required



TRY IT NOW

OPEN SPOT DINAMIS

Access to Open Data Coverage Spot 6-7 France



TRY IT NOW

The DATA TERRA Research Infrastructure becomes an EOSC node

*Observing, understanding and modeling in an integrated manner the history of the Earth system,
how it works and evolves.*

Global changes, a fundamental research challenge



01 One-stop access

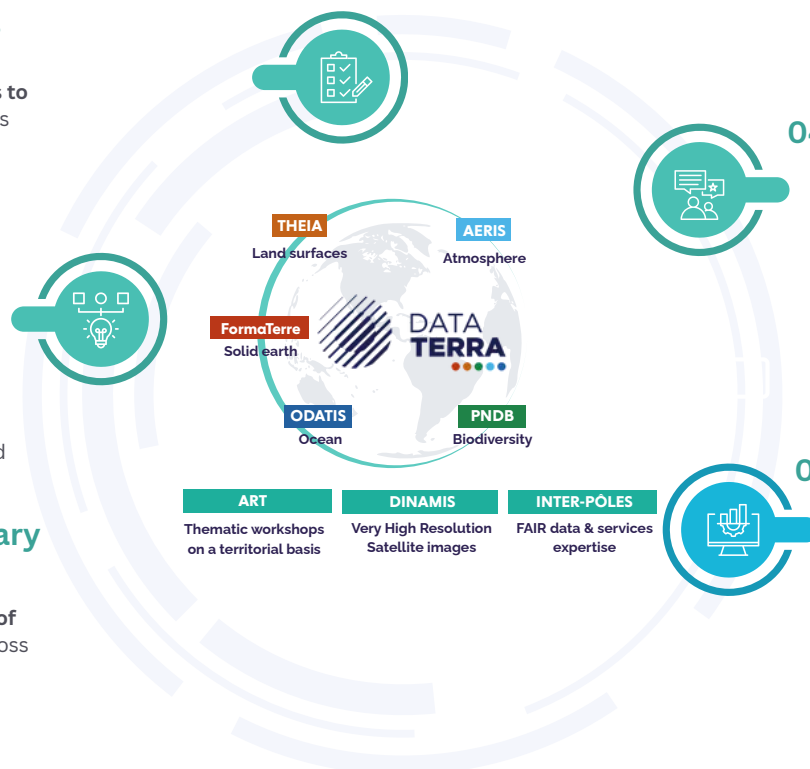
Provide researchers with **one-stop access to science data**, services and infrastructure needed for analysis

02 Federation of resources

Federate existing **science data infrastructures**, currently dispersed across disciplines and member states

03 Interdisciplinary collaboration

Promote the sharing of data and services across disciplinary and geographical boundaries



04 Sharing community

Create a **sharing space for researchers and engineers** from all scientific fields, allowing the exchange of skills and best practices

05 Integration of services

Enable service providers to integrate their offerings into the EOSC ecosystem, thereby **enriching the resources available to the scientific community**

The EOSC DATA TERRA node is the French contribution to Earth and environmental sciences. The DATA TERRA Research Infrastructure will allow users to access data and software in the cloud, share tools and files, and use collaborative resources with simple authentication methods. It will play a key role in achieving the European Commission's ambition to enable the free flow of data and create a digital single market. In support of the EU's Open Science policy, the EOSC DATA TERRA node will connect existing scientific services, opening new opportunities for Earth system and environment researchers at the European level. This approach helps stimulate innovation through cross-border scientific exchanges.

The interoperability of the EOSC DATA TERRA node with other

national and European EOSC nodes and data spaces is a crucial aspect of its future operation, enabling integration into a network much larger than the Earth system alone. The EOSC European node is designed to federate existing data, research, and electronic infrastructure nodes operating at institutional, national, regional, pan-European, and thematic levels. This approach fosters an interoperable digital ecosystem, where data and services can be shared and used seamlessly across different disciplines and research areas.

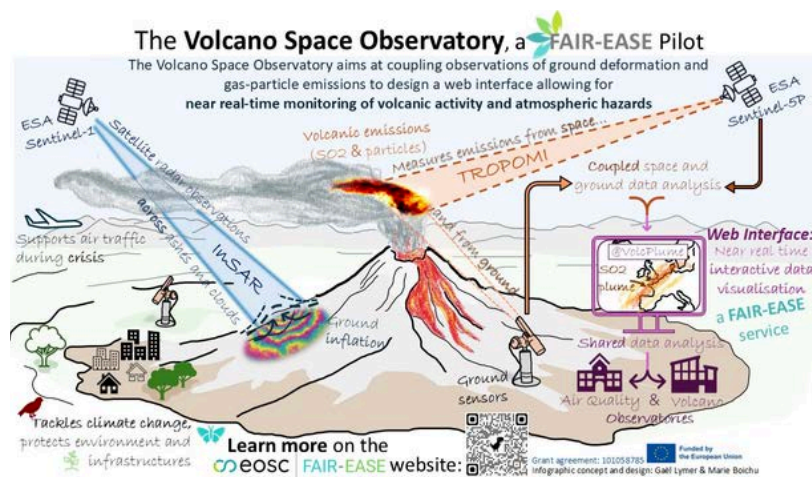
This comprehensive approach not only enables the integration of data and services within the Earth system network, but also their connection with other scientific fields, thus creating a true "FAIR Web of Data and Services" for science in Europe.



VOLCANO SPACE OBSERVATORY, A MULTIDISCIPLINARY PILOT PROJECT TO COLLECT SOLID EARTH AND ATMOSPHERE DATA

The Horizon Europe FAIR-EASE project fosters interdisciplinary collaboration in Earth sciences by connecting datasets from diverse sources following FAIR (Findable, Accessible, Interoperable, Reproducible) principles. The Volcano Space Observatory, a FAIR-EASE pilot, exemplifies this approach by aggregating atmospheric and solid Earth geophysical data. The aim is to support monitoring of volcanic activity in near-real time, and a closer understanding of its impact on the atmosphere, from air pollution and aviation safety to global climate. What sets this project apart is its open-access, interactive, high-performance web platform VolcPlume, developed to enhance multi-scale observation of volcanic plumes and emission parameters.

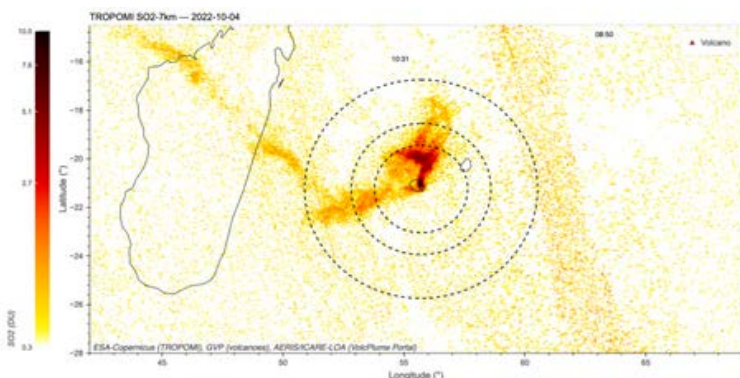
The platform allows users to jointly analyze a broad set of satellite and ground-based active/passive remote-sensing observations of both volcanic gas and particles, including low Earth and geostationary orbit imagery, spaceborne and ground-based lidar, as well as photometric measurements. VolcPlume also provides access to in-situ ground-level data from air quality monitoring networks. This synergy enables users to detect and isolate a volcanic plume signature down to the ground, from source to regional or global scales. The web portal provides access to a broad set of data from the French National Centre for Atmospheric Data and Services (AERIS), which gathers satellite observations from various international satellite missions, such as CNES or Copernicus Sentinel sensors, and ground data from different networks of the ACTRIS ERIC infrastructure, as well as services from the French National Centre for Solid Earth Data and Services (FormaTerre).



Additional interactive web-based tools are also available to facilitate data analysis for specific tasks, such as the SO₂ Flux Calculator and Emission Height Estimator applications, developed to enhance multi-scale observation of volcanic plumes and emission parameters.

By combining satellite and ground-based data, these services provide near real-time insights into volcanic emissions of gas and particles. Planned improvements include tools for monitoring volcano ground deformation and topographic changes to track changes in the state of activity of any active volcano worldwide.

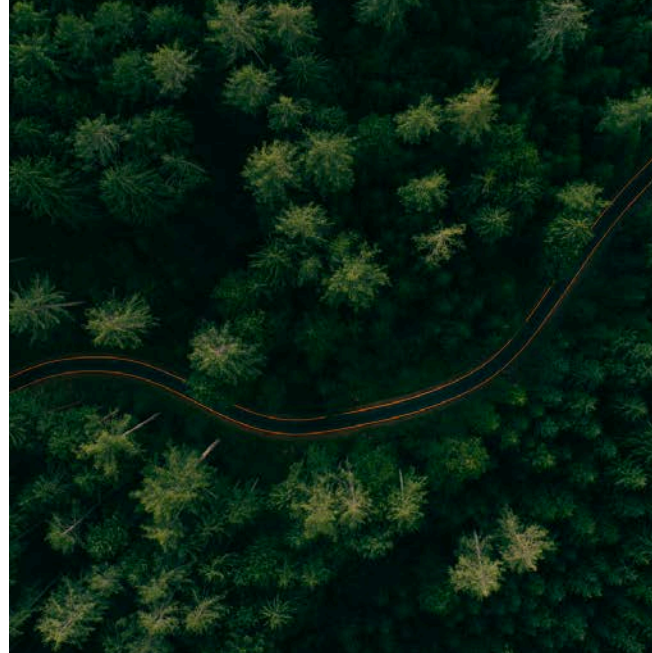
By combining these tools, the Volcano Space Observatory supports remote-sensing monitoring of volcanic activity, filling the gaps left by ground-based systems when explosive eruptions make them inoperative or when an eruption takes place at a remote non-instrumented volcano. This pioneering project positions the Volcano Space Observatory as a key tool for volcanic observation, paving the way for improved interdisciplinary scientific collaboration and benefits to society in the understanding and assessment of volcano and atmospheric hazards.



Dispersion of the SO₂-rich plume from Piton de la Fournaise, an active volcano on Reunion Island, on October 4, 2022, recorded from Sentinel-5P/TROPOMI observations using the AERIS-ICARE/LOA VolcPlume platform

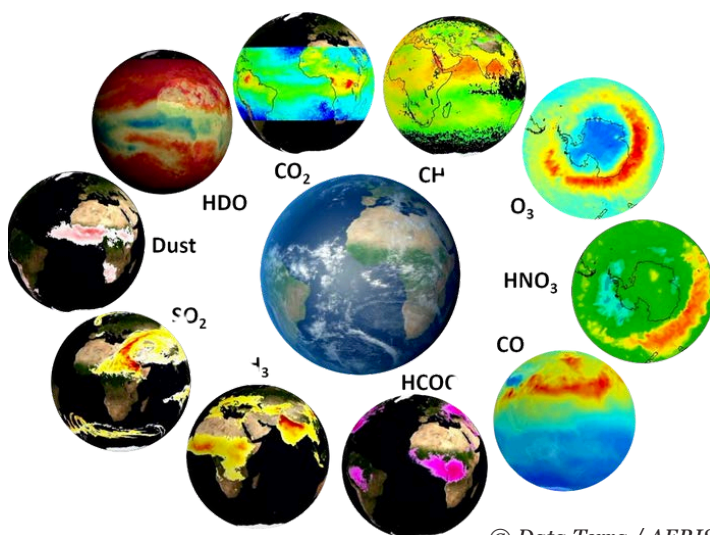
Science and society

ADAPTING AND PRESERVING FORESTS IN THE FACE OF CLIMATE CHANGE



OBSERVING AND MEASURING FOREST FIRES AROUND THE WORLD: IASI

ATMOSPHERE



© Data Terra / AERIS

Developed by CNES in partnership with EUMETSAT, the IASI instrument (Infrared Atmospheric Sounding Interferometer) is flying aboard the European MetOp weather satellites. Its strength: in addition to atmospheric temperature and humidity, IASI measures more than 30 atmospheric components with very high precision and contributes to climate monitoring.

IASI Level 2 satellite data are available on the IASI portal, managed and hosted by the AERIS hub. Thanks to IASI, scientists are able to detect carbon monoxide and track smoke plumes caused by fires, as in the animation below showing smoke plumes in the United States and Siberia.

MAPPING DEFORESTATION IN TROPICAL AREAS: TROPISCO

LAND SURFACES

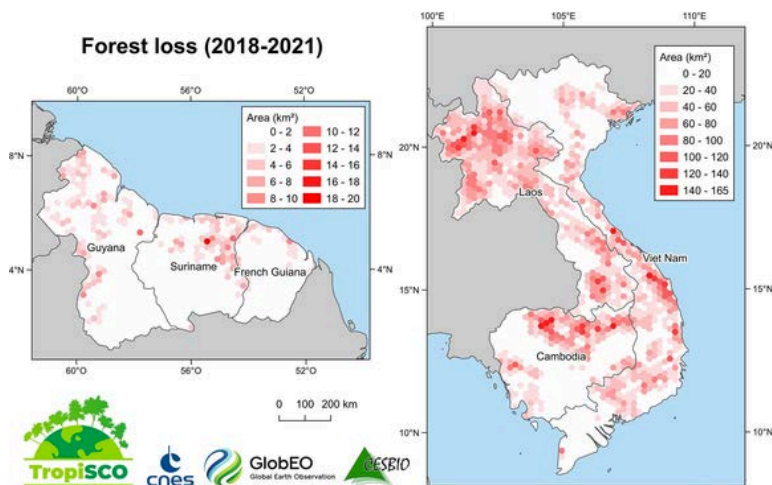


This project, certified by the Space for Climate Observatory (SCO) in 2021, tracks global tropical deforestation in near-real time. The proposed tools were developed based on work conducted at the THEIA hub.

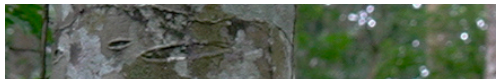


tropisco.org

Forest loss (2018-2021)



© Synoptic maps of forest loss from January 2018 to December 2021, with weekly temporal resolution and ten-meter pixel size, obtained using Sentinel-1 satellite images. The figure was created with the help of Simon Gascoin and Maylis Duffau.



DATA SOVEREIGNTY TO LEVERAGE DEVELOPMENT

Data Terra is a partner of The One Forest Vision initiative (OFVi), an international scientific program launched at the One Forest Summit in Libreville in 2023, dedicated to the long-term conservation of tropical forests and wetlands—vital reserves of carbon and biodiversity—particularly in Central Africa, but also in the Amazon and Southeast Asia.

This collaborative initiative combines cutting-edge science and international cooperation to understand the world's most important tropical forests and wetlands. Its main goals are to precisely monitor and map forest degradation, carbon stocks, and biodiversity using advanced technologies, and to collect and share high-quality data to inform forest management and policy decisions.

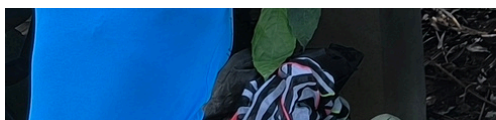
In addition to the services developed for scientists within the hubs, workshops and hackathons are held to raise citizens' awareness. These are new approaches through which DATA TERRA is committed to building bridges between the world of research and civil society. We are actively preparing for COP30 in Brazil alongside all our partners to advance global forest knowledge, by promoting the three-basin vision carried by OFVi, supported and embodied by the representation of Congo Basin countries.



© OFVI. Cerise communication



© Pl@ntnet. three days of practical training in the field



Science and Society

COOPERATION AND DISSEMINATION



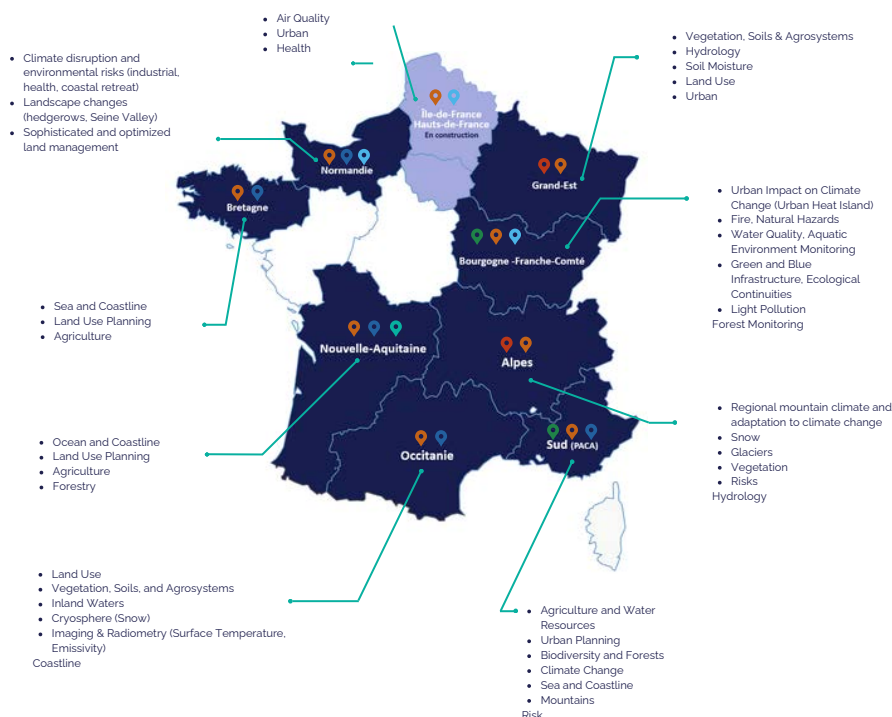
© DATA TERRA / Isabelle Biagiotti

More than a hundred participants for a three-day thematic workshop on data, products and services for monitoring mountain areas, mobilizing the expertise from three DATA TERRA hubs. Jardin du Lautaret, French Alps 2025

Communication and dissemination is clearly a strong lever for innovation. Open innovation is not only important for businesses and their networks, but it is also valuable for the public sector, and cities in particular. Long-term observations show that there has been an increase in interaction and dialogue between the public sector and other stakeholders—including citizens, businesses, and knowledge institutions. Open innovation continues this trend, creating an opportunity for a region to innovate and design services, as well as to conduct its economic development policy in a new way.



© DATA TERRA / Jean Massenet



Discover the Regional thematic facilities

DINAMIS: Affordable High Resolution Imagery for Earth Observation

Created in 2018, DINAMIS is a cross-domain facility of the DATA TERRA National Research Infrastructure. It supplies very-high-spatial-resolution Earth observation data to its thematic hubs AERIS, FormaTerre, Odatis, PNDB and THEIA to support the development of downstream products and services with added scientific and thematic value. It is dedicated to **institutional academics, private-sector R&D and services, and international scientific cooperation partners.**



Very High Resolution images access

In France, **regional thematic facilities bring together public and private structures on a territorial basis**, with an interest in the collection, processing and interpretation of data for public action.

Data Terra is a partner of the Geospatial Conference worldwide and has a dedicated group for sharing of scientific expertise in southern regions. The aim of these events is to:

- sustain the “geospatial dynamic” and facilitate links between ecosystem stakeholders by guaranteeing real inclusion,
- promote sharing of knowledge and experience between users of all levels,
- contribute as much as possible to a roadmap for territorial development in this area of primary interest...



Pleiades - Pont de Millau 2019 - © CNES-ADS - Distribution DINAMIS

CONTACT LPS25



**DATA
TERRA**

Frédéric HUYNH

Director RI DATA TERRA
frederic.huynh@data-terra.org

Laurent DURIEUX

International Relations and
OFVi Project Coordinator
laurent.durieux@data-terra.org

Alessandro RIZZO

EUROPE working group
coordinator
alessandro.rizzo@data-terra.org

Jean-Philippe MALET

Working Group Coordinator
Innovation
jeanphilippe.malet@data-terra.org

Olivier NORVEZ

Ecology & Biodiversity project
Coordinator
olivier.norvez@data-terra.org

François DAHNIEZ

DATA TERRA Transfer Engineer
francois.dahnies@data-terra.org

Jean-François FAURE

Executive secretary DINAMIS device
jean-francois.faure@data-terra.org

Amanda ESPARON

Computer & Geomatics Engineer
DINAMIS
amanda.esparon@data-terra.org

Ghislaine ABBASSI

Communication working
group coordinator
ghislaine.abbassi@data-terra.org

Emmanuel CHALJUB

Director of the FormaTerre hub
emmanuel.chaljub@data-terra.org

Emilie DESCHAMPS

OSTANCIAUX
Deputy Director of the FormaTerre hub
ostanciaux@ipgp.fr

Anne PUISSANT

Director of the THEIA hub
anne.puissant@data-terra.org

Isabelle BIAGIOTTI

THEIA communications manager and
coordinator of the ART device
isabelle.biagiotti@data-terra.org

Erwann QUIMBERT

Directeur of the ODATIS hub
erwann.quimbert@data-terra.org

Caroline MERCIER

ODATIS communication and
dissemination manager
caroline.mercier@data-terra.org

Jian-Sheng SUN

Director of the PNDB hub
jian-sheng.sun@data-terra.org

Yvan LE BRAS

Scientific and technical Coordinator
of the PNDB hub
yvan.le-bras@data-terra.org

Sébastien PAYAN

Director of the AERIS hub
sebastien.payan@data-terra.org

Marina RIPON

AERIS communication manager
marina.ripon@data-terra.org

Review conducted by the DATA
TERRA Communications
Working Group with
contributions from Ghislaine
ABBASSI, Isabelle BIAGIOTTI,
Caroline MERCIER, Marina
RIPON, Emilie DESCHAMPS
OSTANCIAUX, Olivier
NORVEZ and Jean-François
FAURE

For any information requests:
Communication@data-terra.org

To stay up to date with the
latest news from DATA TERRA
and its partners



WWW.DATA-TERRA.ORG

[linkedin.com/dataterra](https://www.linkedin.com/dataterra)

contact@data-terra.org

34 FRENCH ORGANIZATIONS AND UNIVERSITIES PARTNERS

