DATA TERRA

A RESEARCH E-INFRASTRUCTURE TO ACCESS, PROCESS AND COMBINE MULTI-SOURCE DATA

INTEGRATED OBSERVATION OF THE EARTH SYSTEM

www.data-terra.org

1 ABOUT US

WHO WE ARE

The Data Terra research infrastructure (RI)* is dedicated to Earth observation data. Created in 2016, it is based on four data and service hubs corresponding to each of the major compartments of the Earth system. Coordinating, federating and optimizing all existing institutions, systems and resources is one of the major ambitions of the Data Terra RI, at the national, European and international levels.

34 Partner universities and organizations
27 Data and Service Centers
32 Scientific Expertise Advice
450 Scientists, engineers and technicians

42 M € (2020 budget)
+1000 Products and services
+15000 Users
100 000 Terabyte (2022/2023)

OUR MISSIONS

The main mission of IR DATA TERRA is to develop a global system for accessing and processing data, products and services dedicated to Earth observation.

- Easy access to multi-source data
- Development of services over the complete data cycle
- FAIR criteria and interoperability
- Sharing and interoperability of services
- A single infrastructure based on existing capacities, institutions, structures and resources
- Integrated multidisciplinary approaches for the use of Earth observation research data
- Contribution to international and European initiatives in support of public policies for sustainable development

OUR SERVICES

Data Terra offers services around Earth system observation data. The objective is to provide interoperable and interdisciplinary services at all levels.

Access to data

Earth system domain data services and its extended fields of application (catalog, warehouses, statistics, etc.)

Regular data production

Convert observations and measurements into data and derived products for a range of scientific applications

Analysis and processing on demand

Remotely analyze and process large volumes of data - Earth System Analytics Labs (ESALs), Virtual Research Environments (VREs)

User Support Services

Facilitate the use of algorithms, self-learning methods, data visualization and environmental genetics processing.

***RESEARCH INFRASTRUCTURE (RI)**

Research Infrastructures (RIs) are facilities, resources and services used by researchers to conduct their work and promote scientific advances and innovation in their fields.

RIs are essential devices for scientific communities. Thanks to their performance and accessibility, they contribute to federating and advancing science.

MINISTÈRE DE L'ENSEIGNEMENT SUPÉRIEUR ET DE LA RECHERCHE
Liberté Égalité Fraternité

2 DATA AND SERVICES

5 DATA AND SERVICE HUBS

Atmosphere

Created in 2014, the AERIS hub is based on more than 20 years of experience. It is structured around four data and service centers, integrated and increasingly shared. It generates products from observations, but also numerous services to help with data use, help with carrying out collection campaigns, or interfaces with models. Research in the atmospheric field addresses dynamics, physics and atmospheric chemistry.

Solid Earth

Created at the end of 2014, the FormaTerre hub aims to facilitate access to data acquired and managed by research laboratories and observation devices in the solid Earth domain. It is part of the massive influx of data from new space missions, new types of ground sensors, airborne sensors, antenna acquisition devices and citizen instrumentation. It also participates in the implementation of the digitization of Earth archives.

Ocean

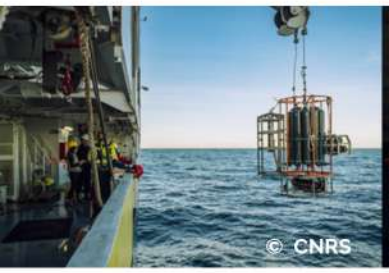
Created in 2016, the ODATIS hub brings together data management and scientific expertise activities in oceanography at the national level. Its objectives are to guarantee the sustainability of heritage data and facilitate the use of observation data carried out in the ocean or at its interface with other 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 National Biodiversity Data Center (PNDB), the 5th center of the Data Terra IR since 2024, aims to provide a coherent set of tools and services for the description, access, validation, analysis and reuse of biodiversity data, for research communities, with the aim of taking biodiversity into account over the long term, at all biological scales, and in all its interactions.

Land Surfaces

Created in 2012, the THEIA hub is based on several data and service centers (CDS), 27 Scientific Expertise Centers (CES) and THEIA Regional Animation Networks (ART). It provides the national and international scientific community, public policies for monitoring and managing environmental resources, with a vast portfolio of value-added satellite products, software, algorithms and image processing related to the observation of continental surfaces (forest, agriculture, biodiversity, etc.).


© CNRS


© iStock


© iStock


© CNES

TRANSVERSE DEVICES

The French National Institutional Device for the Mutualized Supply of Satellite Imagery ensures the supply of high-resolution satellite images to the five data and service centers and contributes to the development of new thematic products/services resulting from Earth observation for the benefit of national and territorial public policies.

INTER-POLES aims to promote exchanges between project owners and experts, to share tools and to work towards standardization and interoperability. Created in 2015, the INTER-POLES system leads and coordinates groups of scientific and technical experts from organizations and universities involved in our Research Infrastructure.

Territories are on the front line in responding to current environmental challenges. Earth observation data and associated services have a role to play in helping them anticipate risks and manage and monitor their resources. The Thematic Regional Animation (ART) system aims to contribute to the dialogue between producers and users of environmental data in in French territories.

DATA TERRA

UAR 2013 DATA TERRA
500 RUE JEAN-FRANÇOIS BRETON
34090 MONTPELLIER
FRANCE

CONTACT@DATA-TERRA.ORG

linkedin.com/dataterra

www.data-terra.org