DATA TERRA

ODATIS

The data and services strategy of ODATIS, the marine cluster of the French Research Infrastructure Data Terra

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Main mission of Data Terra Research Infrastructure

Develop a global system for accessing and processing observation data (satellite, *in situ*), value-added products and services to observe, understand and predict in an integrated manner the functioning and evolution of the Earth system.

5 Thematic Hubs

- Atmosphere
- Biodiversity
- Ocean
- Land Surfaces
- Solid Earth

3 transversal services

ART
Regional animation networks

DINAMIS
Satellite images very high resolution

INTER-PÔLES
Expertise DATA and AI

eosc DATA TERRA node

The Data Terra Research Infrastructure is an European Open Science Cloud) node.

€42m (2020)

+1000 products & services

+15,000 users

100,000 TB (2022/2023)

- **34** organizations, partners and universities
- **27** locations (*incl.* data and services centers)
- **32** scientific expertise consortium
- **450** scientists, engineer and technicians

ODATIS is the ocean component of Data Terra

ODATIS is the "**Ocean" Hub of Data Terra** and the national gateway to access all French ocean data.
Its aim is to **promote** and **facilitate** the use of **all marine observation data** collected by in situ and remote sensing measurements in open and coastal waters.
The objective of ODATIS is to describe, quantify, and understand the entire ocean, including offshore and coastal environments, from the perspective of processes such as thermohaline circulation, distribution of chemical species including carbon, biogeochemical cycles, ecosystem functioning, ocean evolution, ocean–climate relationships, and interactions with other components of the Earth system.

All marine disciplines
- Biogeochemistry
- Marine Biology
- Ocean Physics
- Geology
- Meteorology

ODATIS Data and Service Centers

Findable **A**ccessible **I**nteroperable **R**eusable

CORE TRUST SEAL

To achieve its objectives, ODATIS relies on a distributed network of 8 Data and Service Centres (DSC). They manage and supply multi-sensor datasets over long homogeneous time series, applying FAIR principles and offering guaranteed data management services : data recording, processing, data quality control, long-term archiving and routine access to marine data.
DSC are involved with the coordination of several initiatives for marine data management from regional to international scales, including **regional and national programs, marine European data infrastructures, international programs.**

Service offer

These services are openly available to the entire scientific community, with the aim of supporting research, fostering the development of innovative tools and scripts, and promoting the sharing of oceanographic data — including contributions to regional and national programs, European marine data infrastructures, and international initiatives.

Storage & compute

Two HPC-type data and computing centres combining computing resources and storage dedicated to hosting and processing massive amounts of data.
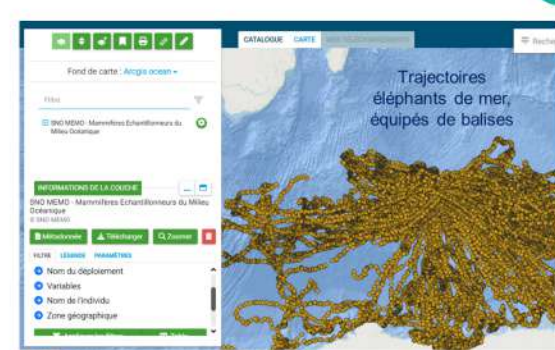
Trex (CNES)
DatArmor (Ifremer)

Data repository

SEANOE
EaSy Data
Earth System Data Repository

Need a dataset to be published ?
Marine data warehouses enable :
publication, description, preservation and diffusion.

Data catalogue

The ODATIS catalog offers a single point of access to a wide range of marine data, ensuring compliance with FAIR principles through high-quality and traceable metadata.

Visualization

Several functionalities: interactive maps, online processing, ODATIS Erddap, STAC services, WMS, SensorThings, OGC...

Virtual Research Environnement

Access to virtual research environments with toolboxes for manipulating and exploring multidisciplinary data.

Support for Data Producer

Organisational and technical support: DMP, vocabulary, interoperable format, storage facilities...

CESSDA Data Archiving Guide

Workshops Webinars

Technical and thematic workshops for training in good data management practice, practical use of tools, user feedback, ...

Webinars are organized to promote DCS activities, share user feedback on data usage, and present useful tools and services to the scientific community.

15 juin 2023 - Brest
Atelier Technique #15
Données de la Flotte Océanographique Française

ODATIS Data Catalog

- ODATIS Data & Service Centers
- Observation RI
- National Observation Services
- Observatories sciences of the Universe
- Research projects
- Scientific community
- Marine Data Repository

The ODATIS catalog, based on the Sextant API, provides access to descriptions of datasets from a variety of sources (DSC, OSU, research projects, laboratories, SEANOE, etc.), offering a single point of access to a wide range of oceanographic data. It provides access to data visualization and download services.
This Sextant API can be offered to any research project or laboratory wishing to develop and get access to a data catalog. The catalog ensures that the data is FAIR by guaranteeing the quality and traceability of the metadata.

https://www.odatis-ocean.fr/en/data

Fr-OOS (French Ocean Observing System) is the national contribution to GOOS. The **Fr-OOS-ODATIS dashboard,** developed by the ODATIS Team is a strategic tool designed to provide a global and exhaustive overview of long-term *in situ* observation data.
A dynamic map displays the measurement points and zones, including samples taken from the water column, the seabed and the surface. The data selection is based on bigdata and offers interactive data discovery and download.

https://data-selection.odatis-ocean.fr/froos

Fr-OOS ODATIS dashboard

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