

EARTH, SPACE AND ENVIRONMENTAL SCIENCES

Data Sharing in the Earth, Space and Environmental Sciences

The Earth, Space, and Environmental Sciences rely heavily on data to support research and decision-making in areas such as environmental policy and management. Open and FAIR data are particularly important in this field because they enable researchers to collaborate and build upon each other's work, leading to more impactful and informed research. Data may pertain to the land, atmosphere, and other natural phenomena, but can also include data about people, making the [CARE Principles for Indigenous Data Governance](#) an equally valuable resource in guiding data collection and reuse in this growing community of research. The resources provided here have been suggested by members of the RDA community and are not exhaustive. Resources appropriate researchers in ESES, from data curation to data preservation, may also be found in adjacent fields such as [eg. Chemistry, Biodiversity...]

Where can I find resources and tools for...

Data and Processing

- [Blue-cloud](#)
- [British Oceanographic Data Centre \(BODC\)](#)

- [CEDA Archive](#)
- [Climate-ADAPT](#)
- [Copernicus](#)
- [Geological Survey Ireland \(GSI\)](#)
- [German Climate Computing Center \(DKRZ\)](#)
- [Global Biodiversity Information Facility \(GBIF\)](#)
- [Global Ocean Observing System](#)
- [Group on Earth Observations \(GEOSS\)](#)
- [IAEA/WHO Network of SSDLs](#)
- [ICOS Carbon Portal](#)
- [IPCC Interactive Atlas](#)
- [IPCC Data Distribution Centre](#)
- [ENVRI](#)
- [EUropean Radiological Data Exchange Platform \(EURDEP\)](#)

[EOSC Portal](#)

The EOSC Portal is a gateway to many of the innovative services, tools, publications and data listed here, and it is constantly growing with additions from the of researchers and research-supporting organisations in Earth, Space and Environmental Sciences. Do you have a resource that you want to share with others? Consider [onboarding](#) into EOSC.



- [FAIR-Ease](#)
- [NASA Transform to Open Science \(TOPS\). Science Data](#)
- [National Oceanic and Atmospheric Administration \(NOAA\)](#)
- [Ocean Biodiversity Information System \(OBIS\)](#)
- [Ocean Gliders](#)
- [PANGAEA](#)
- [Predictia](#)
- [PARSEC: SOCIB](#)
- [The Southern Ocean Observing System \(SOOS\)](#)
- [World Climate Research Program \(WCRP\)](#)

Methods and Documentation

- [Climate-ADAPT](#)
- [Earth System Grid Federation \(ESGF\)](#)
- [European Environment Agency \(EEA\)](#)
- [European Space Agency \(ESA\)](#)
- [Intergovernmental Panel on Climate Change \(IPCC\)](#)

Community and Professional Supports

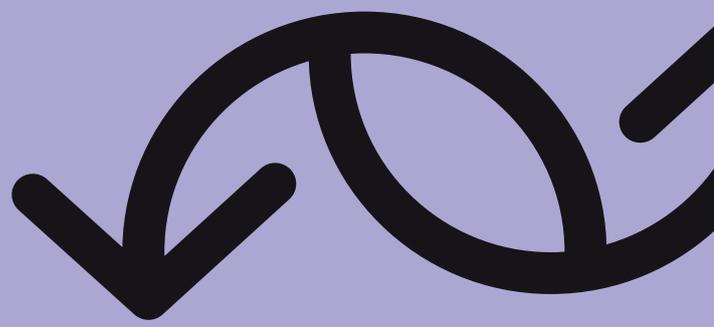
- [American Geophysical Union \(AGU\)](#)
- [Committee on Earth Observation Satellites \(CEOS\)](#)
- [Earth Science Information Partners \(ESIP\)](#)
- [European Geosciences Union \(EGU\)](#)
- [European Marine Observation and Data Network \(EMODnet\)](#)
- [European Radiation Dosimetry Group \(EURADOS\)](#)
- [European Radioecology Alliance](#)
- [EURAMED](#)
- [EURAMET](#)
- [IOCCG](#)
- [Open Geospatial Consortium \(OGC\)](#)

Learn more about the Research Data Alliance (RDA)

- [ESIP/RDA Earth, Space and Environmental Sciences IG](#)
- [Geospatial IG](#)
- [Global Water Information IG](#)
- [International Indigenous Data Sovereignty IG](#)

How to do FAIR and Open Science

- [What is FAIR?](#)
- [FAIR Community Support](#)
- [What is the goal of Open Science?](#)



What are the challenges for earth, space and environmental sciences data in Open Science?

“There is good awareness of Open Science within the research community, but the principles and practices have not been traditionally a part of their work; many weren’t trained for it in their doctoral studies and there’s often no time set aside to actually do the work. They’re using tools that support FAIR data, but without the training and preparation, they may not feel confident that they’ve done enough.”

How can EOSC help researchers working with earth, space and environmental sciences data?

“Data quality and availability is very important in this field, and there are a lot of tools that have been developed to generate, upload and use data that can be found through EOSC. Networks still need to be developed to help scientists connect with those working in related geographic areas to share their data. EOSC is already a connection point, and it has the potential to be the communication bridge needed between researchers.”

— [Lina Sitz](#)

RDA/EOSC Future Ambassador for Earth System Physics/
Data management

