

## EOSC in practice – ENES

### *Sandro Fiore introduces the ENES Climate Analytics Service*

**What are the main research goals of your community?**

The European Network for Earth System modelling, or ENES, brings together the scientific community working on these themes. ENES aims to: help in the development and evaluation of state-of-the-art climate and Earth system models, encourage exchanges of software and results, help in the development of high-performance computing facilities dedicated to long high-resolution, multi-model ensemble integrations.

**Who is involved in ENES?**

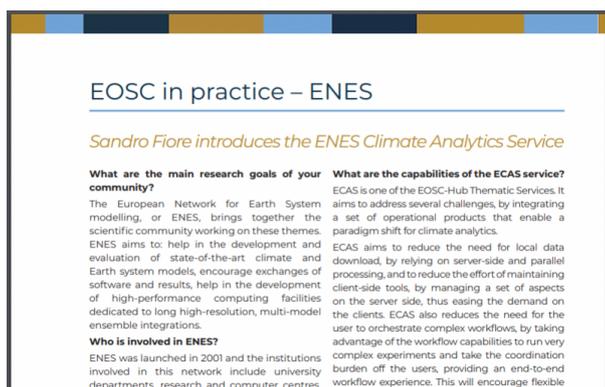
ENES was launched in 2001 and the institutions involved in this network include university departments, research and computer centres,

**What are the capabilities of the ECAS service?**

ECAS is one of the EOSC-Hub Thematic Services. It aims to address several challenges, by integrating a set of operational products that enable a paradigm shift for climate analytics.

ECAS aims to reduce the need for local data download, by relying on server-side and parallel processing, and to reduce the effort of maintaining client-side tools, by managing a set of aspects on the server side, thus easing the demand on the clients. ECAS also reduces the need for the user to orchestrate complex workflows, by taking advantage of the workflow capabilities to run very complex experiments and take the coordination burden off the users, providing an end-to-end workflow experience. This will encourage flexible and open data sharing according to the FAIR

## EUDAT's B2HANDLE at the core of the EOSC in Practice case of the European Network for Earth System modelling



EUDAT's **B2HANDLE** service was featured in the EOSC-hub Magazine's inaugural issue in the EOSC in Practice case of the European Network for Earth System modelling.

The article, featuring an interview with CMCC's Sandro di Fiore, cites that the ENES Climate Analytics Service (ECAS) reduces the need for the user to orchestrate complex workflows, by taking advantage of the workflow capabilities to run very complex experiments and take the coordination burden off the users, providing an end-to-end workflow experience. This will encourage flexible and open data sharing according to the FAIR principles and will enable PID-based provenance support through the integration with specific services like B2HANDLE. ([See the article](#) in the EOSC-hub Magazine)

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B2HANDLE is a distributed service for storing, managing and accessing persistent identifiers (PIDs) and essential metadata (PID records) as well as managing PID namespaces. The implementation of the service relies on the DONA/Handle persistent identifier solution.

ENES-EUDAT collaboration

ENES has had a fruitful collaboration with EUDAT, having their community federation of data servers integrated into EUDAT. Moreover, ENES is using [B2FIND](#) to integrate metadata from the World Data Center Climate (WDCC), which includes some Earth System Grid Federation (ESGF) data. ENES is also integrating more of the ENES metadata providers so their data can be found via B2FIND.

Within ENES, several partners have already established infrastructures for the long-term preservation of data, especially well structured large data collections. They also need to preserve long tail data (that is, large numbers of small data collections) within ENES. DKRZ is exploring running an instance of B2SHARE for ENES users and is evaluating the situation regarding the potential uptake of this service.

To learn more about the collaboration between EUDAT and ENES, [check out the ENES case study](#).  
[More on B2HANDLE](#).

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