is-enes

INFRASTRUCTURE FOR THE EUROPEAN NETWORK FOR EARTH SYSTEM MODELLING

Newsletter 2
October 2019

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Project News and Upcoming Events

IS-ENES3 has its community on ZENODO!

IS-ENES3 has its community on ZENODO since September 2019!
The project material, such as deliverables, milestones, presentations, newsletter, will be regularly uploaded on the IS-ENES3 community.

ESGF Future Architecture Workshop

From the 5ᵗʰ to 7ᵗʰ of November, 2019 - Abingdon, UK.
ESGF Future Architecture Workshop is a project meeting to review the existing system architecture, examine requirements for a future system and propose new solutions. Nearly ten years ago, when the original ESGF system was designed, the development was being driven by the need to create a globally distributed archive for downloading CMIP data. ESGF has grown and diversified in the number of projects and disciplines it supports; the operational requirements are clearer for the ESGF to support an international federated archive of this size; many of the ESGF nodes now have other functions beyond CMIP and there has been changing landscape of data repository and science needs. The Future Architecture Workshop has been convened by the ESGF Executive Committee (ESGF-XC) with the purpose of re-assessing the requirements and developing a future architecture for the system. Attendance is by invitation only and concentrates on ESGF key developers. See more.

IS-ENES3 week

An **IS-ENES3 week** is planned from the **23rd of March to the 27th of March 2020** at the **Centre International de Conférence, Toulouse** (France).
It includes:

➢ The **Coupling Technology workshop,** organized by CERFACS, from the **23rd to the 25th of March**
➢ The **ESGF Face2Face Conference**, co-organized by IS-ENES3, Météo-France and LLNL, from the **23rd to the 25th of March**
➢ **The IS-ENES3 First General Assembly**, co-organized with Météo-France, from the **25th of March to the 27th of March**

Ongoing

EXTENDED DEADLINE: The first IS-ENES3 call for Transnational Access to Analysis Platforms for CMIP6 and CORDEX is extended to the 11th of November

With the new large data volume increase trend, researchers and end users of scientific data now require server-side processing systems to reduce transfer, memory, and file format/standard issues. This is especially beneficial for data users with limited access to high performance facilities or with limited network bandwidth. Via the new IS-ENES3 Transnational Access (TNA) service, **new data near processing capabilities at the centers DKRZ, CNRS-IPSL, STFC-JASMIN (at CEDA), and CMCC will be made accessible to a broader user community**. These processing capabilities (compute and storage) support multi-model server-side data analyses through direct access to large data pools including replicated data from the European as well as non-European ESGF data nodes for CMIP6 and CORDEX. See more**.**

The IS-ENES3 2nd call for an OASIS Dedicated User Support is opened since the 6th of September

Within the IS-ENES3 H2020 European infrastructure project, WP6 "Services on European ESMs and Software Tool", a Trans-National Access action proposes **to provide TECHNICAL help at user site to design, upgrade or enhance the implementation of the OASIS3-MCT interface in your model(s) and/or set up a tailored and computationally efficient coupled system.** This year, a total of **3 person-months of Dedicated User Support** will be offered to **3 different groups**. Provided by **CERFACS**, this service is open to **any climate research laboratory in Europe**. The granted applicants will only have to provide the OASIS developer an access of their office, codes and computing platform. All other costs are covered by the project. The application deadline is **October 31, 2019.** See more.

Climate4Impact demonstration @ the EMS2019

A second demonstration of the [Climate4Impact](#) data portal **on how to visualize, analyse and process climate data** took place at the [European Meteorological Society meeting 2019](#) in Copenhagen (Lyngby Campus), on September 12th, 2019. The short training, meant especially for **impact researchers** and other people with limited knowledge of climate data, involved six participants. After a short presentation, participants have explored the portal and got some support. A step-by-step guide for using the portal has been made available to the participants. A Climate4Impact **webinar** also took place on the 16th of September 2019. Other demonstrations and webinars will be organized during the IS-ENES3 project lifetime. The material will soon be made accessible on the Climate4Impact portal.

'Defining a cutting-edge future for sea ice modelling' workshop

The IS-ENES3 workshop "**Defining a cutting-edge future for sea ice modelling**", organized by **Met Office**, **CNRS**, and **DOE**, in conjunction with the **NEMO Sea Ice Working Group** and the **CICE Consortium**, was held from the **24th to 26th of September 2019** in **Laugarvatn, Iceland**. The workshop brought together representation from across the international sea ice modeling community to explore how our models can match the various needs of the research, climate modelling and operational communities. The workshop discussions focused on the future evolution and development of sea ice models, around two themes: the scientific and technical validity, as well as the limitations, of current sea ice models; and the physical processes and complexity of sea ice models, that is to say how to bridge the gap between weather and climate requirements. A short report (Milestone M4.1) of the workshop will be made available by January 2020.

5th ESMValTool Technical Coding workshop

The 5th Technical ESMValTool Coding Workshop was held from the **14th to 17th of October 2019 at the German Aerospace Center (DLR Oberpfaffenhofen)**, near Munich. The focus of this workshop was core development team support for diagnostic developers. A summary will be available soon on the IS-ENES3 website.

Workshop goals
- Get diagnostic branches ready for merging
- Handling of open pull requests
- Handling of different vertical coordinates in CMIP6
- CMORization of observational data (e.g. time bounds ERA5 data, unify ERA5 cmorizers)
- Processing of CMIP3 data
- Complete documentation
  - ➢ Identify and fill existing gaps
  - ➢ Sort (by title) and group (by theme) scientific documentation of diagnostics
- Merging of EMAC quicklook branch (import capability of native EMAC output)
- Complete set of fix files for CMIP6 models

Other News

67 climate modelling groups use OASIS3-MCT to assemble more than 80 coupled applications

OASIS3-MCT is a coupler of codes developed at Cerfacs and used around the world, mainly for climate modelling applications. It is always evolving to answer users' needs and current developments are largely supported by IS-ENES3 (WP4 and WP8) and, to a lesser extent by ESiWACE2 CoE. A recent survey confirms that **OASIS3-MCT is used by 67 modelling groups to assemble more than 80 different coupled applications over the 5 continents**. These applications include global or regional configurations of ocean and atmosphere models but also sea ice, sea level, wave, ocean biogeochemistry, land, vegetation, river routing, hydrological and atmospheric chemistry models. OASIS3-MCT is used in 5 of the 7 European Earth System Models participating to the 6th Coupled Model Intercomparison Project (**CMIP6**) that produces the climate simulations forming the basis of the next report of the Intergovernmental Panel on Climate Change (IPCC). See more.