Call announcement for an XIOS Dedicated User Support

ESiWACE2 2nd call for applicants – 2021

Within the ESiWACE2 H2020 European infrastructure project, WP 3 « HPC services to prepare the weather and climate community for the pre-Exascale » provides services to improve performance and portability of climate codes with respect to existing and upcoming tier1 and tier0 computers. In this context,

we provide dedicated TECHNICAL help to design, upgrade or enhance the implementation of XIOS I/O server in your model(s) to set up tailored and computationally efficient I/Os.

XIOS (XML-IO-Server) is a library developed at IPSL dedicated to parallel I/O management in climate codes. XIOS manages output of diagnostics and other data produced by climate component codes into files and offers temporal and spatial on-the-fly processing operations on this data. XIOS Fortran user-interface consists of a defined set of subroutines that facilitates its interfacing in model codes. I/O configuration is done though a set of XML files, using a specific syntax.

This year, one 2-person-month Dedicated User Support will be offered. Provided by CERFACS and IPSL, this service is open to any weather/climate research laboratory in Europe. The service will consist in remote dedicated support on the user code and if required (and depending on the sanitary conditions), an on-site visit by the XIOS support can be organized. The granted applicant will only have to give the XIOS support team an access to its codes and computing platform. All other costs are covered by the project.

This service excludes the *scientific* analysis and evaluation of the model outputs.

To apply:

Briefly describe your project and your needs filling the questionnaire "Description of your XIOS project" (5 pages maximum)
Send your questionnaire to to Sophie Valcke (**sophie.valcke[a]cerfacs.fr**).

The deadline for this 2nd call for applicants is May 31st, 2021.

Evaluation criteria:

- Potential of the resulting model interfaced with XIOS to be used on pre-Exascale machines, e.g. compatibility with emerging architectures, increased task/model parallelism, reduced precision computations, etc.
- Quality of the methodology proposed
- Expected scientific impact of the resulting model and its long-term support by the applicant group
- Potential of the project to result in XIOS developments benefiting the whole community

A technical review of the application will be performed by the service providers and the final selection will be made by a board formed by 2 ESiWACE2 partners and 1 external member. The institutions selected will be notified by the end of June 2021.