
MultiXscale project will celebrate its General Assembly after EuroHPC Summit in Antwerp, Belgium

Ljubljana, March 13th 2024 - [MultiXscale project](#) will gather next week a European group of experts on High-Performance Computing (HPC) in its General Assembly (GA), to be carried out in Antwerp, Belgium from 21 to 22 March 2024.

The main activities to be developed during the second year of this EuroHPC Joint Undertaking funded project will be discussed in this two-days meeting, to be celebrated after the [EuroHPC Summit](#) event, organized from 18 to 21 March.

The EuroHPC Summit will bring together top experts working in the field of European supercomputing, enabling a perfect place to share the latest technological developments, define synergies, express their current and future needs, and participate in shaping the future of European supercomputing.

More information about MultiXscale participation during the EuroHPC Summit can be found [here](#).

Funded for a period of four years, and coordinated by the [National Institute of Chemistry](#) based in Ljubljana, Slovenia, MultiXscale is a collaborative project between members of the CECAM network and EESSI that will allow domain scientists to take advantage of the computational resources offered by EuroHPC JU. It gathers the following 13 partners joining from the academic and industrial sectors across Europe: National Institute of Chemistry, Forschungszentrum Jülich GmbH, University of Stuttgart, University of Barcelona, SURF BV, University of Groningen, Ghent University, University of Bergen, Barcelona Supercomputing Center, Sorbonne University, HPCNow!, Leonardo and the Italian Institute of Technology.

The MultiXscale Centre of Excellence will increase performance, productivity and portability ("the Three P's") across the entire spectrum of scientists active in the domain of multiscale simulation. It couples the scientific expertise of the CECAM network, represented by leading experts in multiscale simulations from different European institutions, with the technical expertise of the EESSI collaboration, and targets the computational laboratories of EuroHPC and beyond. It will shoulder much of the technical burden of developing and distributing domain-relevant applications for (pre-)exascale through application co-design for exascale technologies, and the provisioning of exascale-oriented libraries and services that nudge the community to

adopt battle-tested, future-oriented, scalable workflows and portable technologies. Together, these will allow application developers to pursue domain-relevant scientific innovation without being over-burdened by technical detail, and empower industrial and academic application users to painlessly adopt bleeding-edge technologies from the domain on whatever computational resource they may have access to.

To drive the development of the libraries and services, and to showcase the scientific and industrial potential of truly multiscale approaches, MultiXscale will pursue three pilot use cases of societal and industrial significance:

- helicopter design and certification for civil transport,
- battery applications to support the sustainable energy transition,
- ultrasound for non-invasive diagnostics and biomedical applications.

MultiXscale will extend the applications, user-base and domains actively engaged in the current CoE and EuroHPC ecosystem by addressing specific and critical needs, and advancing the transition towards use of exascale resources by scientific and industrial users in the community of multiscale modelling.