



EuroHPC
Joint Undertaking

The European High Performance Computing Joint Undertaking (EuroHPC JU)

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A new EuroHPC world-class supercomputer in the Czech Republic



The procurement contract of a new petascale EuroHPC supercomputer has been signed by the European High Performance Computing Joint Undertaking (EuroHPC JU), the IT4Innovations National Supercomputing Centre at VSB – the Technical University of Ostrava, the hosting entity, and the selected vendor, Hewlett Packard Enterprise.

This new HPC system, located in the Czech Republic, will be a petascale supercomputer, capable of executing more than 15,2 Petaflops or 15,2 million billion calculations per second. With such performance, the system will be amongst the world's top 50 supercomputers.

Anders Dam Jensen, the Executive Director of the EuroHPC JU stated:

"This new world-class supercomputer, located in the Czech Republic will benefit Europe as a whole and will bring us one step closer to our ambition of making Europe a global leader in high performance computing. Its computing power will be accessible to European public, scientific and industrial users wherever they are in Europe, for instance to improve weather predictions, develop greener energy infrastructures or adapt therapies to the specific needs of a patient."


Václav Snášel, the Rector of VSB –Technical University of Ostrava said:

"IT4Innovations has long established itself as a leading research, development, and innovation centre in the field of high-performance computing, data analysis, and artificial intelligence with excellent reputation across Europe. I believe that by procuring this system, the position of IT4Innovations as a major European supercomputing centre will be further consolidated, while at the same time bringing our university interesting projects from both its in-house and external users from academia and industry"

Vít Vondrák, the Managing Director of IT4Innovations National Supercomputing Center added:

"Our users' demands for computational resources are growing every year, and we have not been able to fully meet them anymore. This brand-new supercomputer is designed to fully cover user requirements in solving complex scientific and industrial problems involving, for example, classical numerical simulations, large-scale data analysis, and the use of artificial intelligence."

The name of the new supercomputer will be selected as part of a [public competition](#) that everyone with permanent residency in the Czech Republic can participate in, and it will last until 15 December 2020.

The new supercomputer is co-funded by [IT4Innovations](#)  and the EuroHPC JU with a joint investment of EUR 15 million. The access to the computing resources of the new machine will be jointly managed by the two entities in proportion to their investments. This new supercomputing system is expected to be operational in May 2021.

Its objective is to foster better science and enhance innovation in Europe by providing access to leading edge HPC infrastructures and services to a wide range of users from the research and scientific community as well as the industry and the public sector. This new supercomputer will support the development of leading scientific, public sector and industrial applications in many domains, including artificial intelligence, personalised medicine, bio-engineering, weather forecasting, fight against climate change, drug and material design.

Background

Hewlett Packard Enterprise has been selected following a [call for tender](#) launched in April 2020.

The computing power of this new computing system will soon be complemented by four additional EuroHPC petascale supercomputers to be built in the following supercomputing centres:

- [LuxProvide](https://eurohpc-ju.europa.eu/meluxina-new-eurohpc-world-class-supercomputer-luxembourg-2020-09-29_en) (https://eurohpc-ju.europa.eu/meluxina-new-eurohpc-world-class-supercomputer-luxembourg-2020-09-29_en), Luxembourg

- [IZUM](https://eurohpc-ju.europa.eu/vega-new-eurohpc-world-class-supercomputer-slovenia-2020-10-01_en) (https://eurohpc-ju.europa.eu/vega-new-eurohpc-world-class-supercomputer-slovenia-2020-10-01_en), Slovenia
- [Sofiatech](#) [↗](#), Bulgaria
- [Minho Advanced Computing Centre](#) [↗](#) (MACC), Portugal,

and, once all the procurement processes are completed, three EuroHPC pre-exascale supercomputers located at the following supercomputing centres:

- [Barcelona Supercomputing Centre](#) [↗](#), Spain
- [CSC](#) [↗](#) – IT Center for Science, Finland
- [CINECA](#) [↗](#), Italy.

More information

- [IT4Innovations one step closer to launching the most powerful supercomputer in the Czech Republic](#), Press release from IT4Innovations National Supercomputing Centre
- [Hewlett Packard Enterprise selected to build Czech Republic's most powerful supercomputer to advance R&D in science and engineering](#) [↗](#), Press release from Hewlett Packard Enterprise
- Technical specifications of the new system in this [dedicated section](#) (https://eurohpc-ju.europa.eu/about/our-supercomputers_en#ecl-inpage-227) of our website.

Details

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