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Press release

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Slovenian Supercomputing Centres Open their Doors to the Public

On the 18th of October, we celebrate Exascale Day – a day dedicated to the new generation of the world's fastest high-performance computers. Upon the initiative of the National Competence Centre HPC SLING, we took the opportunity to prepare some activities and opened the doors of five national supercomputing centres to the public.

Slovenian National Competence Centre for High-Performance Computing

Slovenia plays an important role in the development of supercomputing with its knowledge, investment in infrastructure and use of high-performance systems. The European undertaking EuroHPC JU was founded in 2018 for Europe to become competitive on the global supercomputing market. EuroHPC JU supports the development of supercomputing, infrastructure, and knowledge. One of the projects under the auspices of EuroHPC JU is **EuroCC**, national competence centres in the framework of EuroHPC with 33 participating European countries, among them Slovenia. Within the project, Slovenia is a member of a consortium of ten partners that develops the national competence centre HPC SLING in the field of supercomputing. The competence centre fosters education, training, and connections in high-performance computing for the purposes of research in science and industry, in the academic area and when providing public funding, mostly through raising the users' education level but also public awareness about the advantage of using such technology.
"*Within SLING, we provide free training for anyone to acquire the necessary skills for using supercomputers – from the basics to expert knowledge, where it is required to know how to use the technology itself in addition to having good knowledge about each scientific area. Many of these skills can be acquired through workshops and seminars, organised within the HPC national competence centre*," says **Damjan Harisch**, EuroCC project coordinator.

Training and expert support is also available to students, researchers, Slovenian entrepreneurs, and the industry. "*We also provide support for small and medium-sized enterprises, as we can not only help them use the Slovenian supercomputing capacities, but also with the applications for European projects, and consequently, acquiring additional funding, required for research and development,"* adds Harisch.

Supercomputing Centres Open Day

The consortium partners took Exascale Day as an opportunity to show supercomputing, its use and its extreme potential for the economy, science and community to the general public. Five supercomputing centres opened their doors, among them also the Institute of Information Science in Maribor, which hosts **EuroHPC Vega**, one of the most powerful supercomputers

Projekt EuroCC je financiran s sredstvi Skupnega podjetja za visoko zmogljivo računalništvo (EuroHPC JU) v skladu s sporazumom o dodelitvi sredstev št. 951732. EuroHPC JU je prejelo finančno podporo iz EU programa Obzorje 2020 ter Nemčije, Bolgarije, Avstrije, Hrvaške, Cipra, Češke , Danske, Estonije, Finske, Grčije, Madžarske, Irske, Italije, Litve, Latvije, Poljske, Portugalske, Romunije, Slovenije, Španije, Švedske, Združenega kraljestva, Francije, Nizozemske, Belgije,

in Slovenia and worldwide. Visitors were also able to see one of the few privately owned supercomputers in Europe, **Arctur-2** at the company Arctur in Nova Gorica, the **Maister supercomputer** at the University of Maribor, the **supercomputer clusters** of the Slovenian Academic and Research Network (ARNES) and the Jožef Stefan Institute in Ljubljana, as well as **HPC Trdina** at the Faculty of Information Studies in Novo mesto. At 17:00 CET, an online event took place for all those who could not participate in the open doors day at the respective supercomputing locations. At the virtual event, the supercomputing system of the National Institute of Chemistry was also be presented.

"*We want people to find out and understand what supercomputers are and, primarily, what they are used for. If you wish, you can see the high-performance technology up close*," explains Harisch. The event focused mainly on high-schoolers and university students who would like to get to know the latest technologies. **Tomi Ilijaš**, director of Arctur: "*We would like to show young people that engineering work is also interesting and very satisfying when you can create systems that contribute to the well-being of many people. We would like to encourage the students to not settle with being mere users of these technologies, but instead travel to the centre of knowledge and dive into the secrets of bits and chips that only few can understand.*"

Technologies of the future

The selected date, the 18th of October (18/10), was not selected randomly. Exascale computers are supercomputers of the future and will be able to compute at least 10 to the 18th power of floating point operations per second (1 exaFLOPS). This immense computing capacity can be illustrated as follows: each person on Earth would have to perform calculations 24 hours per day for over four years to be able to calculate what an exascale computer can in one second.

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