



Vega online: the EU first EuroHPC supercomputer is operational

21 April 2021

Vega, the first new petascale EuroHPC machine, hosted in the Institute of Information Science in Maribor, in Slovenia, and partly financed by the European High Performance Computing Joint Undertaking, is fully operational.



On 20 April 2021, the EuroHPC world-class supercomputer Vega is officially inaugurated with a high-level ceremony in Maribor, Slovenia. Vega is the first EU supercomputer to be delivered, jointly financed with EU funds.

Janez Janša, Slovenian Prime Minister, said:

"Today we are aware that the Vega supercomputer will have profound indirect effects on our lives. It will enable scientists to invent new materials and components, it will help them model global phenomena, and develop new medicines and medical therapies in the fight against cancer or other persistent diseases. Furthermore, Vega will provide support to companies developing the most advanced products in the automotive, energy and healthcare sectors, etc. With this and similar steps, the EU is resolutely following the path towards strategic autonomy. I wish all of you who will use the Vega supercomputer every success in your work and in your endeavours to always use the exceptional potential of new inventions to the benefit of both individuals and all humanity."

Margrethe Vestager, Executive Vice-President of the European Commission for a Europe Fit for the Digital Age, said:

"The VEGA and the seven other supercomputers in development will have a crucial role in advanced scientific research. By building capacity around high performance centres and digital hubs, they will open new doors for European SMEs to compete in tomorrow's high tech economy. Even more importantly, by supporting artificial intelligence to identify the molecules for breakthrough drug treatments, by tracking infections for COVID and other diseases, European supercomputing can help save lives."

Dr Simona Kustec, Minister for Education, Science and Sport, said:

"State-of-the art science, technology and advanced industry cannot develop without modern tools, and it is the country's responsibility to provide the research community access to such tools. Consequently, the areas of supercomputing, digitalisation and AI development are among the national priority and focus areas, which are demanding both in respect to planning and implementation. That is why I think that initiatives such as EuroHPC are of extreme importance, as they enable and foster joint planning and investments within the European research area, thus strengthening and uniting it even further."

The Vega supercomputer is at this moment the most uniting infrastructure in Slovenia and it is extremely important for the Slovenian research community, the development of science and economy. I believe and I wish that it will unite European researchers in large international research projects, which will contribute towards solving the challenges of our society, such as the COVID-19 pandemic, crisis management, climate change management, and focused sustainability."

Anders Dam Jensen, the European High Performance Computing Joint Undertaking (EuroHPC JU) Executive Director, said:

"Despite the obvious challenges of the COVID-19 pandemic, the Vega supercomputer is the first supercomputer to be fully operational. By being the first supercomputer to be online, Vega is a very important milestone towards meeting our common objective of building a world-class HPC ecosystem in Europe by 2027. Vega will significantly increase the computing power currently available in Europe. EuroHPC JU is paving the way to ensure that Europe is leading both in excellence and autonomy in supercomputing thanks to a 'new way of working' where all participating states and the EU, pool investment and resources together for one common goal. EuroHPC-JU will continue to invest in research and deployment of new HPC technology and applications."

Dr Aleš Bošnjak, Director of the Institute of Information Science in Maribor (IZUM), said:

"As of today, the Institute of Information Science (or IZUM in short) hosts one of the most powerful supercomputers in Europe, ranking among the top 50 worldwide. It is most definitely the first supercomputer of this size in Slovenia. Funds for the supercomputer were mostly acquired from the cohesion project HPC RIVR concluded in March of this year; some of the funds (approx. 35 %) were additionally acquired with a successful application to the EuroHPC JU tender in 2019. Among the eight successful candidates, we are the first applicant from this tender to start-up a

supercomputer. This must be the reason we have such esteemed guest here at IZUM today – for my colleagues and for me personally this is a great honour."

The Vega supercomputer is the largest supercomputer in Slovenia. Based on the BullSequana XH2000 technology infrastructure delivered by Atos, the petascale supercomputer with a sustained performance of 6.9 petaflops, or 6.9 million billion calculations per second will underpin open science, research, and innovations in Slovenia and Europe.

The Vega supercomputer was jointly procured by Slovenia and the EU with an investment of €17.2 million. It is financed at 65.8% by the European Union from the European Regional Development Fund and the Slovenian Ministry of Education, Science and Sport, and at 34.2% by the EuroHPC Joint Undertaking.

Vega will enable Slovene and European scientists to cooperate in large international projects and support the development of applications in science, public sector, and industry, especially in the fields of machine learning, artificial intelligence, and high-performance data analytics.

From April 2021, access time will be allocated to European scientific, industrial and public sector users, matching their demanding application requirements, according to the principles stated in the EuroHPC JU Council Regulation and the JU's [Access Policy](#).

EuroHPC JU is now ready to accept the first applications to access Vega's computing power.

Background

The procurement contract of Vega was signed on 1 October 2020 by the EuroHPC JU, the Slovenian IZUM, the hosting entity. The company Atos was selected as vendor following a call for tender launched in April 2020. On 10 March 2021, the machine was delivered and started the benchmarking phase.

Four other petascale supercomputers have been procured under the EuroHPC Joint Undertaking:

- MeluXina, Luxembourg
- Discoverer, Bulgaria
- Karolina, Czech Republic
- Deucalion, Portugal

Furthermore, two EuroHPC pre-exascale supercomputers have been procured and will complement the petascale machines:

- LUMI, Finland
- LEONARDO, Italy

More information

- Technical specifications of the new system in this dedicated section of our website.
- Details on the Access opportunities available on [dedicated PRACE](#) website.