



Slovenian HPC Vega System, the first operational EuroHPC system, on Top 500

Slovenian national supercomputer HPC Vega has placed Slovenia at the 21st place among countries featuring their systems on the Top 500 supercomputer lists this June. HPC Vega, hosted at Institute of Information Science in Maribor, has been a collaboration of Slovenian partners and the EuroHPC Joint Undertaking and has scored a major success by being the first EuroHPC system to start production and accept international European users. It is also the largest system in Slovenia, where it has been established within the national project HPC RIVR tasked to upgrade national infrastructure in HPC and science data systems as well as support regional development. HPC Vega is serving a number of users from very different disciplines, and is managed by IZUM and a team of national experts from the national consortium SLING who are also involved in the future EuroHPC project Leonardo, thereby fostering national and international collaboration.

The system has been co-funded by the EuroHPC Joint Undertaking through the European Union's Connecting Europe Facility and the Horizon 2020 research and innovation program, the European Regional Development Fund and the Ministry for Education, Science and Sport of the Republic of Slovenia. With its Top 500 posting, it takes positions 107 with its' CPU partition and 134 with its accelerator partition with the HPL benchmark, and positions 56 and 71 with the HPCG benchmark score. The combined power of the two partitions (Rmax (TFLOPS) 6,918.0 TFLOPS, Rpeak 10,047.0 TFLOPS, HPCG 126,15 TFLOPS) would put the system around the 57th and 42nd places, respectively and it puts Slovenia at the 21st place among countries featuring their systems on the Top 500 list – the same positioning achieved in June 1993 Top 500 with Slovenia's first listing at Top 500.

HPC Vega is joined by 4 more EuroHPC systems all delivered by Atos: MeluXina accelerator partition (#37, 10.5 PFLOPS, Luxembourg), MeluXina CPU partition (#232, 2.3 PFLOPS, Luxembourg), Karolina accelerator partition (#70, 6.0 PFLOPS, Czechia), Karolina CPU partition (#149, 2.8 PFLOPS, Czechia) and Discoverer (#92, 4.5 PFLOPS, Bulgaria) with four more systems supported by the new European supercomputing initiative on the way.

Related news:

- Vega online: the EU first EuroHPC supercomputer is operational (EuroHPC JU, April 20, 2021) <https://eurohpc-ju.europa.eu/news/vega-online-eu-first-eurohpc-supercomputer-operational>
- Vega Online: The EU First EuroHPC Supercomputer Is Operational (HPC Wire, April 20, 2021) <https://eurohpc-ju.europa.eu/news/vega-online-eu-first-eurohpc-supercomputer-operational>
- Meet Vega: EuroHPC's first supercomputer set up in Slovenia to power EU's high-performance computing goals (SiliconCanals, May 22, 2021) <https://siliconcanals.com/news/meet-vega-eurohpcs-first-supercomputer/>
- EuroHPC JU Benchmark and Development Access Calls for Vega (PRACE RI, May 1, 2021) <https://prace-ri.eu/hpc-access/eurohpc-access/eurohpc-ju-benchmark-and-development-access-calls/>
- EuroHPC Opens Access to Atos 'Vega' Supercomputer, More HPC on Way (Inside HPC, May 4, 2021) <https://insidehpc.com/2021/05/eurohpc-opens-access-to-atos-vega-supercomputer-more-hpc-on-way/>
- HPC Wire: Fugaku still on top of Top 500 (<https://www.hpcwire.com/2021/06/28/top500-fugaku-still-on-top-perlmutter-debuts-at-5/>)

