The European High Performance Computing Joint Undertaking (EuroHPC JU) announced the procurement for JUPITER. Once in place, JUPITER will be the most powerful computer in Europe.

Moreover, as the first system in Europe to achieve exascale performance, i.e. the ability to execute over one billion billion calculations per second, it will place the EU as a world leader in supercomputing. Supported by a total EU contribution of €500 million, the new supercomputer will be located and operated by the Jülich Supercomputing Centre (JSC) in Germany.

Following its installation and set-up in the coming months, the JUPITER system is expected to be accessible to a wide range of European users from the end of 2024. It will help supercomputing researchers make scientific breakthroughs and contribute to finding solutions in climate change monitoring, drug and material discovery, and the need for better emergency response systems. The configuration of an additional mid-range supercomputer, Daedalus, is underway in Greece, while a second EuroHPC exascale supercomputer is expected to be hosted in France in 2025.

As announced by President von der Leyen in her 2023 State of the Union address, these machines will be made available to Artificial Intelligence (AI) start-ups to train their models, substantially shortening development times, and accelerating the deployment of technologies and AI-based algorithms in critical areas, such as extreme weather prediction, infrastructure reconstruction, and eHealth. This will contribute to the EU's aim of leading global efforts in AI and achieving responsible and ethical innovation.

JUPITER will join the existing supercomputers of the EuroHPC JU already in operation: Discoverer in Bulgaria, MeluXina in Luxembourg, Vega in Slovenia, Karolina in Czechia, LEONARDO in Italy, LUMI in Finland and Deucalion in Portugal. The third European pre-exascale MareNostrum5 supercomputer in Spain will be inaugurated in the next few months.

Source: European Commission

Image Credit: iStock

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