

PRESS RELEASE

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Supercomputers: Council agrees to develop high-tech infrastructure

The Council today agreed to give a boost to a high-performance computing ecosystem by establishing a new European joint undertaking.

The joint undertaking will oversee the pooling of resources within Europe to develop supercomputers for processing big data, which is essential for addressing current major scientific and societal challenges.

Powerful supercomputers are necessary if we are to create and develop new markets with significant added value. They are at the core of advanced technologies which are vital to Europe's competitiveness and security, tackling major challenges such as climate change forecasting and advanced medicine modelling. Today's decision supports the EU's ambitious digital and innovation agenda to establish a high-performance and world-beating computing ecosystem across Europe. An essential part of this ambition is to equip researchers and innovators with the right skills and provide them with access to new knowledge and technologies. *Krasimir Valchev, Minister of Education and Science of Bulgaria*

High-performance computing is key to the digitisation of industry and the data economy. Its many practical applications will provide benefits to a wide range of industrial and business sectors, as well as to users from academia, scientific communities and the public sector.

Europe's scientific capabilities, industrial competitiveness and sovereignty depend on access to world-class supercomputers and data infrastructures to keep pace with the increasingly complex challenges and problems of our modern world.

A public-private partnership

The European high-performance computing ("EuroHPC") joint undertaking will take the form of a public-private partnership. It will provide a legal, contractual and organisational framework to its members.

The members of the joint undertaking will be the EU, individual EU countries, third countries associated to the Horizon 2020 programme and private associations.

The joint undertaking will remain open to the participation of new members.

The joint undertaking will run until the end of 2026 and be based in Luxembourg.

Funding of the project

The EuroHPC joint undertaking will be financed from several sources: the EU's general budget, individual contributions from participating EU member states, participating third countries and private investment.

The financial contribution from the EU's general budget will amount to € 486 million: € 386 million from the "Horizon 2020" research programme and € 100 million from the "Connecting Europe Facility" programme.

Next steps

The joint undertaking is expected to start operating at the latest by early 2019 in order to reach the target of equipping the EU with a pre-exascale and petascale infrastructure by 2020, and developing the necessary technologies and applications for reaching exascale (which allows at least 10^{18} calculations per second) capabilities around 2022 to 2023.

The aim is to network existing and new centres of excellence and to set up a long-term ecosystem for supercomputing in Europe.

A development cycle of the next generation of technology typically takes 4-5 years.

Background

High-performance computing refers to the technologies and the use of powerful supercomputers (interconnecting in a single system or in close proximity of hundreds of thousands or millions of computing units working in parallel) to perform massive and fast computations that are so demanding that they cannot be performed by general-purpose computers.

On 11 January 2018, the Commission proposed a regulation for the establishment of the EuroHPC joint undertaking based on articles 187 and 188 of the EU treaty.

On 23 March 2017, several member states signed the EuroHPC declaration, committing to work towards the development of an integrated supercomputing infrastructure of the next generation.

- [Draft regulation establishing the European high-performance computing joint undertaking](#)
- [EuroHPC declaration of 23 March 2017](#)

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