

Austria joins European declaration on high performance computing

Austria has just signed the EuroHPC declaration.



European Union

European declaration on high performance computing

The Austrian Minister of Education, Science and Research Heinz Faßmann signed the EuroHPC Declaration in Vienna today in the presence of Mariya Gabriel, Commissioner for Digital Economy and Society.

With this signature, Austria becomes the eighteenth European country to join this national and European effort to build the next generation of high performance computing and data infrastructure.

Commissioner Gabriel welcomed Austria's signature:

We are very pleased to welcome Austria into this bold European project. Pooling our resources to develop supercomputers in Europe will boost our capacity to offer the right tools to our industry and researchers for the benefit of our citizens. This will benefit applications in many areas such as parallel processing, physics, medicine and medical engineering or climate research. We count on the support of the Council for a swift adoption of the EuroHPC Regulation.

The Austrian Minister of Education, Science and Research Heinz Faßmann stressed the importance of this joint European endeavour both for Austria and the European Union:

High-performance computing is a key resource for Austria. We are fully aware that in many areas of research, progress depends on the availability of high performance computing and data infrastructure. For Austria it is thus important to have access to these cutting-edge research resources in addition to our continuing national efforts.

By joining EuroHPC, we are not only demonstrating European solidarity but we are also strengthening the European Research Area and securing international competitiveness for our researchers.

Supercomputers are an excellent example of the necessity to cooperate transnationally. In this way we create a clear European added value and will be able to compete with Asia and North America.

I am confident that with Austria participating in the EuroHPC opportunities will open up that we are not even aware of today. So I am delighted to be able to provide Austrian researchers in science, business and industry with access to this European high performance computing infrastructure as soon as it will be available.

By signing the EuroHPC declaration, Austria has announced its intention of joining the EuroHPC Joint Undertaking (JU) proposed by the European Commission on 11 January 2018, once it is formally adopted by the Council of the European Union.

The aim of EuroHPC JU is to foster high-performance computing infrastructure for the EU that will cover the full value chain from technology components to systems and machines, and further to applications and skills. Access to the EuroHPC infrastructure will be granted to all participating countries under fair and transparent principles.

This legal and funding entity aims to pool EU and national resources with the goal of:

- acquiring and providing across Europe by 2020 a world-class pre-exascale supercomputing infrastructure, capable of a hundred million billion or 10^{17} calculations per second, in order to match the demanding application requirements of Europe's scientific and industrial users;
- supporting the development of European supercomputing technology, including the first generation of European low-power microprocessor technology and the co-design of European exascale machines (capable of at least a billion billion or 10^{18} calculations per second);
- fostering applications and skills development and the wider use of high performance computing.

With a total budget of approximately EUR 1 billion, the JU is expected to start operating in 2019 and remain operational until the end of 2026. It will provide financial support, in the form of procurement and R&I grants, to participants, following open and competitive calls. The new infrastructure will be jointly owned and operated by the JU's members: countries that have signed the EuroHPC declaration, and private members from academia and industry. Other members can join at any moment, provided that they pledge a financial contribution.

Background

The EuroHPC declaration was originally launched in March 2017 during the Digital Day and signed by France, Germany, Italy, Luxembourg, the Netherlands, Portugal and Spain. Since then, Belgium, Slovenia, Bulgaria, Switzerland, Greece, Croatia, the Czech Republic, Cyprus, Poland, and Lithuania.

HPC machines, also known as supercomputers, consist of thousands of processors working in parallel

to analyse billions of pieces of data in real time. They can help industrial users and SMEs to devise innovative solutions, reduce costs and decrease the time to market for products and services, and scientists to process vast amounts of data, for example for use in climate modelling or genome sequencing. HPC's potential range of practical applications is vast: it includes better treatments and personalised healthcare, the prevention and management of large-scale natural disasters, the development of complex encryption technologies, and the production of more innovative goods and services.

HPC is the backbone of a vibrant data economy. A EuroHPC infrastructure will allow the EU to make the most of it while ensuring a high level of data protection, privacy and security.

HPC is also changing the way research is performed and knowledge is shared, as part of a transition towards 'open science', which makes research more open, global, collaborative, creative and closer to society.

More information on the EuroHPC Joint Undertaking:

- [Press release](#)
- [Questions & Answers](#)
- [Communication and annex](#)
- [Staff working document](#)
- [Factsheet](#)
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