

European High Performance Computing Joint Undertaking

2020/0260(NLE) - 24/06/2021 - Text adopted by Parliament, 1st reading/single reading

The European Parliament approved by 643 votes to 9, with 44 abstentions, following the consultation procedure, a legislative resolution on the proposal for a Council regulation on establishing the European High Performance Computing Joint Undertaking.

As a reminder, the proposed new regulation aims to establish the European High Performance Computing Joint Undertaking (EuroHPC), with a budget of EUR 8 billion for the period 2021-2033.

Parliament approved the proposal subject to the following amendments:

Joint Undertaking's missions

Members considered that the Joint Undertaking should have the following tasks:

- develop, deploy and extend and maintain a federated, secure, hyper-connected, world-class supercomputing and **quantum computing ecosystem of services and data infrastructures** in the EU, thus contributing to the EU's world-leading position in science, digital and industrial areas;
- support the development and operation, preferably within the EU, of innovative and competitive **supercomputing systems** based on a supply chain of critical raw materials and components, state-of-the-art technologies and knowledge limiting the risk of disruption, and to develop a wide range of optimised applications for these systems based on the principles of trust, openness, security, interoperability and portability
- extend the use of this supercomputing **infrastructure** to a large number of public and private users in the EU, with particular attention to SMEs and start-ups, including those in the research and development phase;
- supporting the development of **advanced digital skills, competencies and knowledge** for European society, science and industry.

The Joint Undertaking should also:

- implement its mission and objectives in a **clear, simple and flexible** way in order to increase attractiveness towards industry, SMEs and all relevant stakeholders. To ensure access to key decisions, Members recommended the creation of a user forum to advise the steering committee and advisory groups;
- minimise any risk involved in handling, storing and **processing of personal data** in the supercomputing infrastructures and shall comply with the General Data Protection Regulation and other relevant Union legislation;
- ensure that High Performance Computers are exclusively accessible to entities that comply with the same rules and that its resources are open to scientists from all Participating States;
- contribute to safeguarding the **interests of the EU** when procuring supercomputers and supporting the development of world-class High Performance Computing technologies, systems and applications;

- support **Europe's global leadership** in high value-added products and services, to provide essential components, technologies and skills to close the technology gap with third countries;
- enable a co-design approach for the acquisition of world-class supercomputers, while safeguarding the security of the supply chain of procured technologies and systems and ensure the highest standards of cybersecurity applicable to supercomputers.

EU financial contribution

The Joint Undertaking should be organised around **seven pillars**, of which one is administrative and six are technical.

The infrastructure pillar, part of the federation of supercomputing services pillar and the widening usage and skills pillar should be funded by the Digital Europe Programme. The remaining activities of the federation of supercomputing services pillar, including the interconnection with the Union's common European data spaces and secure cloud infrastructures, should be funded by Connecting Europe Facility.

The technology, the application and the international cooperation pillars should be funded by the Horizon Europe Framework Programme.

Members proposed that the Union financial contribution should cover up to 50% (compared to 35% proposed by the Commission) of the acquisition costs plus up to 50% of the operating costs of the mid-range supercomputers.

Synergies and complementarities with other EU funds

Financial contributions under programmes co-financed by the Recovery and Resilience Facility, ERDF, the ESF+, the EMFAF and the EAFRD should also be considered as a contribution of the participating State to EuroHPC, provided that the relevant provisions of the Common Provisions Regulation for 2021-2027 and the fund-specific regulations are complied with.

Access time

User allocation of access time to the supercomputers of the Joint Undertaking should be free of charge for private users, including NGOs and individuals, related to research and innovation activities, as well as for private innovation activities carried out by **start-ups**, based on fair and transparent criteria and procedures. This allocation of access time should be based on **open, transparent, periodic and peer-reviewed calls for expressions of interest** to ensure a balanced and appropriate allocation of HPC resources.

Environmentally responsible practices

Members insisted that all initiatives and activities should be in line with the European Green Deal. The Joint Undertaking should take into account the energy efficiency principle with a view to improving energy efficiency in the design of new and existing systems and testing new energy efficiency approaches based on renewable energies that improve greenhouse gas emissions and the environmental footprint of supercomputers.

Parliament also suggested the establishment of an **energy management plan** with a strategy to increase the energy efficiency of facilities and access to renewable energy through renewable energy purchase agreements.