

European High Performance Computing Joint Undertaking

2018/0003(NLE) - 03/07/2018 - Text adopted by Parliament, 1st reading/single reading

The European Parliament adopted, by 599 votes to 37, with 39 abstentions, a legislative resolution on the proposal for a Council regulation on establishing the European High Performance Computing Joint Undertaking.

Parliament approved the Commission proposal subject to amendments.

Mission: Members stressed the importance of the EU being among the **world's leading supercomputing powers by 2022**. The mission of the Joint Undertaking is to establish and maintain in the Union an integrated world-class High Performance Computing and Big Data ecosystem based on Union leadership in HPC, cloud and Big Data technologies.

Definitions: the amended text stipulates that ‘hosting entity’ shall mean a legal entity established in a Member State participating in the Joint Undertaking which includes facilities to host and operate a **petascale** (10^{15} calculations per second) or **pre-exascale** (10^{17} calculations per second) supercomputer.

Objectives: the Joint Undertaking shall have, *inter alia*, the following overall objectives:

- to provide scientists and researchers, industry, including **start-ups, micro-enterprises, SMEs** and the public sector from the Union or an Associated Country to Horizon 2020 with latest High Performance Computing and Data Infrastructure and support the development of its technologies and its applications across a wide range of fields **primarily for civilian use such as healthcare, energy, smart cities, autonomous transport and space**;
- to provide a framework for acquisition of an integrated world-class pre-exascale supercomputing and data infrastructure in the Union, including through supporting the **acquisition of petascale supercomputers**;
- to support the development of an integrated High Performance Computing ecosystem in the Union covering all scientific and industrial value chain segments notably hardware, software, applications, services, engineering, interconnections, know-how and skills, in order to **strengthen the Union as a global centre for innovation**, contributing to competitiveness and enhanced research and development capacity;
- to enable **synergies** and provide added value of cooperation between participating Member States and other actors;
- to liaise with existing contractual public-private partnerships with regard to High Performance Computing and big data in order to create synergies and integration;
- to increase the innovation potential of industry, and in particular of **microenterprises and SMEs, as well as of research and scientific communities** using advanced High Performance Computing infrastructures and services, including national High Performance Computing and Supercomputing centres;
- to encourage qualification and a balanced representation of men and women in the High Performance Computing career paths;

Hosting entity: the Joint Undertaking shall entrust the operation of each individual petascale or pre-exascale supercomputer it owns to a hosting entity, representing **one or several Participating Countries**. The hosting entity shall be selected by the Governing Board, based on, *inter alia*, a high level of data protection, privacy and cybersecurity, including a state-of-the-art management of risks and threats and

resilience against cyberattacks. Once the hosting entities are selected, the Joint Undertaking shall ensure **synergies** with the European structural and investment funds.

Access time to the supercomputers: access to the share of the Union's time shall have an exclusive focus on **civil applications**. The contribution from each Participating State to the cost of the access time shall be made publicly available.

Research and Innovation Advisory Group: this group shall consist of no more than **20 members** (as opposed to 12 as proposed by the Commission), whereof no more than eight shall be appointed by the Private Members and no more than twelve shall be appointed by the Governing Board.

Data protection: the Union law on data protection, privacy and security shall apply to any supercomputer owned fully or in part by the Joint Undertaking, or for any supercomputer making available access time to the Joint Undertaking. The JU shall guarantee that the High Performance Computing supercomputers in the Union are accessible exclusively to entities which comply with Union law on data protection, privacy and security.

Evaluation: Members stressed that the evaluation, to be carried out by 30 June 2022, shall also identify possible other policy needs, including assessment of the situation for specific sectors on their possibility to fully access and use the possibilities enabled by High Performance Computing.