

EuroHPC initiative for start-ups to boost European leadership in trustworthy Artificial Intelligence

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PURPOSE: to amend Regulation (EU) 2021/1173 as regards a European High Performance Computing (EuroHPC) initiative for start-ups to boost European leadership in trustworthy Artificial Intelligence.

PROPOSED ACT: Council Regulation.

ROLE OF THE EUROPEAN PARLIAMENT: the Council adopts the act after consulting the European Parliament but without being obliged to follow its opinion.

BACKGROUND: a Regulation of the European Parliament and of the Council laying down harmonised rules on artificial intelligence (Artificial Intelligence Act) aims to improve the functioning of the internal market by laying down a uniform legal framework in particular for the development, marketing and use of artificial intelligence in conformity with Union values.

Since 2021, when Council Regulation (EU) 2021/1173 was adopted, the field of artificial intelligence (AI) has seen enormous technical progress and become a highly strategic and contested domain globally. The Union is at the forefront of efforts to support responsible innovation in trustworthy AI, while setting guardrails and developing effective governance.

On 13 September 2023, as part of a comprehensive approach to support responsible innovation in AI, the Commission announced a new strategic initiative to make the Union's high-performance computing capacity available to innovative European startups in trustworthy AI to train their models.

Given that the Union's most powerful world-class supercomputing capacity is found in the European High Performance Computing Joint Undertaking's facilities, it is those facilities that should be made available in order for the Commission's initiative to become a reality. It is accordingly necessary to introduce a further objective to the existing six objectives of the Joint Undertaking that would cover the contribution made by its supercomputers to the new AI initiative of the Union.

CONTENT: the proposed amendment will enable the Joint Undertaking to perform activities in the domains of acquiring and operating AI-dedicated supercomputers or partitions of supercomputers to enable fast machine learning and training of large AI foundation models. Those changes would enable the Joint Undertaking to offer tailored computing power and services to nurture large-scale AI training and development and uptake in the Union, which is **not feasible under the current Regulation**. Only common action of this kind at Union level can enhance the technological sovereignty and Union's economic security and leverage its tools and regulatory powers to shape global rules and standards in AI, at the same time significantly contributing to AI uptake in European industry, research and public services.

More specifically, the proposed amendment of the EuroHPC Regulation aims to **set up AI Factories**, a new pillar for the EU's supercomputers Joint Undertaking activities. It will consist of:

- acquiring, upgrading and operating AI-dedicated supercomputers to enable fast machine learning and training of large General Purpose AI (GPAI) models;

- facilitating access to the AI dedicated supercomputers, contributing to the widening of the use of AI to a large number of public and private users, including startups and SMEs;
- offering a **one-stop shop** for startups and innovators, supporting the AI startup and research ecosystem in algorithmic development, testing evaluation and validation of large-scale AI models, providing supercomputer-friendly programming facilities and other AI enabling services;
- providing dedicated AI oriented supercomputing services in support of the AI startup, science and innovation ecosystem for the large-scale training and development of general purpose, trustworthy and ethical AI models and systems, and of AI user communities for the development, validation and running of emerging AI applications, in particular in the areas of health and care, climate change, robotics, and connected and automated driving;
- fostering a **talent development pool** to provide advanced education, training, skilling and reskilling activities to relevant AI stakeholders.