HYPERION RESEARCH

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EuroHPC JU Fortifies Goal of Post-exascale Era Leadership

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RECENT DEVELOPMENT

Building upon the success of the initial phase of its Centres of Excellence (CoE) program, the EuroHPC JU (European HPC Joint Undertaking) recently announced the launch of ten new Centres of Excellence to support research and innovation targeted to develop and adapt HPC applications for the exascale and post-exascale era. The domain-area CoEs will work collaboratively with EU National Competency Centers focused on country-specific resources and research initiatives.

ANALYST COMMENTARY

Recent research has consistently shown that a skills gap exists between leadership HPC infrastructure capabilities and availability of skilled HPC practitioners, researchers, and engineers. To address this gap and accelerate users' abilities and uptake of modern pre-exascale and exascale infrastructure, the ten new centers of excellence were created to broadly address preparing applications for the exascale area and specifically targeting applications for science and innovation. Key scientific focus areas include earth science, biomolecular research, engineering applications, weather and climate, and material design.

Plans call for a two-phase approach: the first provides funding to address the transition of existing codes to exascale-class infrastructure, and the second provides access and funding for CoE-developed new research (referred to as flagship code) to be deployed on all EuroHPC supercomputers and will be made available for European scientists and the broader European HPC community.

Much like the US DoE's Exascale Computing Project, the CoE's aim is to provide a smooth transition towards exascale computing and accelerate key EU environmental, scientific, and societal research efforts. Although the program is defined to support EU scientists and the broader European HPC community, the intensifying EU strategy of technological sovereignty for critical sectors in the EU could hamper established long-term collaboration with leading international centers and subject matter experts. A careful balance of strengthening domestic capability while continuing important international collaboration, albeit a complex process, will be a critical determinant of the success of this and similar efforts.