

The Exascale Era : an opportunity for Earth and Universe Science applications

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¹ GENCI – Grand Equipement National de Calcul Intensif

Created in 2007 by the French Ministry of research, CEA, CNRS, French Universities and Inria, GENCI has the mission to provide French and European researchers from (academia and industry) with leading-edge HPC and storage facilities for their workloads in numerical simulation, data analytics and artificial intelligence (AI). In 2022 GENCI is offering more than 2 billion core hours on 3 systems for a cumulated peak performance of more than 130 PFlops. The next step is now to apply to EuroHPC' second call for hosting an Exascale system, 20x more powerful than current national facilities, to be installed if successful at TGCC (CEA) in 2025. Beyond its computing power and the use of European technologies, such system will allow major scientific advances by offering new services toward the link with scientific instruments, the development of urgent computing, the convergence of HPC and AI or the rise of first quantum based accelerated workloads.