



Press Release

CEA and Eviden Launch Phase 2 of the EXA1 Supercomputer Program

Paris, France – April 17, 2024 – CEA and [Eviden](#), the [Atos](#) business leading in advanced computing, today announce the delivery of the EXA1 HE (High Efficiency) supercomputer, based on Eviden's BullSequana XH3000 technology.

Designed to meet the needs of the Simulation program run by CEA's Military Applications Division, the EXA1-HE represents the second and most innovative stage in the EXA1 program, and complements the [EXA1 HF \(High-Frequency\) supercomputer, delivered by Eviden in 2021](#).

With a peak performance of 104 Petaflops, the system can achieve a Linpack performance of about 60 Petaflops, which is the equivalent of the 15th most powerful supercomputer in the most recent TOP500 ranking from November 2023. Based on Eviden's BullSequana XH3000 architecture, with a patented warm-water cooling system, the EXA1 HE is equipped with 477 compute nodes based on NVIDIA's Grace Hopper Superchips.

The system's interconnect is based on the latest version of Eviden's BullSequana eXascale Interconnect (BXI) system, which is the only European interconnect technology. The network relies on a DragonFly topology and is composed of 156 switches. This first BXI accelerated computer paves the way for future BXI technologies for exaflop-class and AI systems and will meet the future needs of research and industrial centers worldwide.

EXA1 fulfills the requirements of the defense programs that are implemented at CEA's Military Applications Division. To be increasingly representative of complex phenomena, the simulation requires a consistent increase in the performance of supercomputers, ensuring that reasonable computing times can be maintained to fulfill the milestones of the government programs and to keep the energy consumption of computing centers under control.

Emmanuel Le Roux, SVP, Global Head of HPC, AI and Quantum at Eviden, Atos Group, said, "We are deeply honored by this contract with the CEA, which is once again showing its confidence in Eviden, by continuing the EXA1 program with the Group's teams and thus extending a relationship that has lasted for more than 20 years. With its 'Made in Europe' high-performance computing systems, such as the BullSequana XH3000 and the BXI interconnect, co-designed with the CEA and produced in its Angers factory, Eviden supports private and public sector

organizations, such as CEA's Military Applications Division, in their European sovereignty challenges, by enabling them to take full advantage of their data while maintaining the highest level of security in all circumstances."

Jacques-Charles Lafoucriere, Program Director at CEA's Military Applications Directorate, said, *"We are pleased to see the full deployment of this new system. With the first applications having already been run on it through best-in-class accelerated technologies that have also been chosen for Exascale systems, CEA's Military Applications Division will be able to meet its HPC and AI needs for the future challenges of its Simulation program."*

About Eviden¹

Eviden is a next-gen technology leader in data-driven, trusted and sustainable digital transformation with a strong portfolio of patented technologies. With worldwide leading positions in advanced computing, security, AI, cloud and digital platforms, it provides deep expertise for all industries in more than 47 countries. Bringing together 47,000 world-class talents, Eviden expands the possibilities of data and technology across the digital continuum, now and for generations to come. Eviden is an Atos Group company with an annual revenue of c. € 5 billion.

About Atos

Atos is a global leader in digital transformation with c. 95,000 employees and annual revenue of c. € 11 billion. European number one in cybersecurity, cloud and high-performance computing, the Group provides tailored end-to-end solutions for all industries in 69 countries. A pioneer in decarbonization services and products, Atos is committed to a secure and decarbonized digital for its clients. Atos is a SE (Societas Europaea), and listed on Euronext Paris.

The purpose of Atos is to help design the future of the information space. Its expertise and services support the development of knowledge, education and research in a multicultural approach and contribute to the development of scientific and technological excellence. Across the world, the Group enables its customers and employees, and members of societies at large to live, work and develop sustainably, in a safe and secure information space.

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About the CEA

The CEA is tasked with guiding public decisions and providing the scientific and technical means that civil society (businesses and local authorities) needs to better manage major societal changes, such as the energy transition, digital transformation, future healthcare, defence and global security. Its mission is supported by 20,000 employees and 9 research centres equipped with major research facilities that provide an innovative environment conducive to academic and industrial partnerships in France, Europe and abroad. For more information www.cea.fr.

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¹ Eviden business is operated through the following brands: AppCentrica, ATHEA, Cloudamize, Cloudreach, Cryptovision, DataSantics, Edifixio, Energy4U, Engage ESM, Evidian, Forensik, IDEAL GRP, In Fidem, Ipsotek, Maven Wave, Profit4SF, SEC Consult, Visual BI, Worldgrid, X-Perion. Eviden is a registered trademark. © Eviden SAS, 2023.