

Atos unveils next-generation hybrid exascale-class supercomputer, a key driver for digital and economic sovereignty

Paris France, February 16, 2021 – Atos today unveils its new exascale-class supercomputer, the BullSequana XH3000, a hybrid computing platform with unparalleled flexibility and performance to enable top scientists and researchers to advance research in sectors such as weather forecasting and climate change, new drug discovery, genomics. Designed and manufactured in Europe at its factory in Angers, France, this is Atos' most efficient and powerful supercomputer and an important element in securing today's digital and economic sovereignty. As the undisputed European leader in supercomputing, Atos plays a key role in addressing sovereignty issues, ensuring that key HPC knowledge and skills are fostered and remain in Europe.

Empowering digital and economic sovereignty

In order to take full advantage of their data while maintaining their ability to protect it under any circumstance, governments, public bodies and private companies are now making sovereignty a major issue. With its BullSequana XH3000 and its expertise in [sovereign cloud](#) and [cybersecurity](#), Atos is committed to providing its customers with the means to exercise greater control over the data they produce and exchange.

Pushing the boundaries of technical excellence

- **Exascale¹ performance with Accelerated Hybrid Computing** - today's increase in the quantity and complexity of data means that there is an exponential need in terms of computing power, in order to tackle the new challenges that humanity is facing today such as global warming and the Covid-19 pandemic. The BullSequana XH3000 will be able to deliver unprecedented computing power – up to 6x increase in computing power than previous versions - at any scale, up to an exascale-class system by using Hybrid Computing advanced techniques, combining CPUs, GPUs with AI or even in quantum computing hardware in traditional scientific simulation workflows.
- **Greener HPC – harmonizing performance & energy consumption** - the BullSequana XH3000 is the one of most energy-efficient supercomputers on the market thanks to its eco-design and architecture, patented Direct Liquid Cooling (DLC) solution – which will provide over 50% more cooling power than previous generations - and fully eco-compliant product lifecycle, from raw material sourcing and manufacturing, to testing and transportation, and disposal/recycling.

¹ An exascale supercomputer can perform up to one billion of billion operations by second (1 exaflop)

*"High-performance computing has made enormous contributions to science, engineering and the quality of human life and is a cornerstone of innovation and scientific progress." said **Earl Joseph, CEO at [Hyperion Research](#), HPC industry analyst group** "As the leading European HPC vendor, Atos is well positioned to continue advancing research and innovation with its new supercomputer, and to bring exascale class systems to its customers. With its new BullSequana XH3000 supercomputer, hybrid computing ecosystem integrating AI and quantum, and its strong roadmap for exascale, Atos demonstrates a clear, comprehensive vision of the future of scientific simulation, while taking into account the importance of decarbonization."*

*"Supercomputing plays a pivotal role in driving innovations for business, society, and the global economy as a whole and is also key to scientific and economic sovereignty in the 21st century." said **Rodolphe Belmer, CEO of Atos**. "We are extremely proud of our role as a leader in HPC and of our new BullSequana supercomputer, revealed today, which results from 15 years of R&D efforts and brings together Atos' proven expertise and experience in high-performance computing, AI, quantum, security and digital decarbonization. It will no doubt enable, through the gateway of exascale, some of the key scientific and industrial innovation breakthroughs of the future."*

The BullSequana XH3000 integrates the latest and most-demanding technologies, networks and interconnect and is powered by the latest CPU and GPU processor and accelerator architectures from [AMD](#), [Intel](#), [NVIDIA](#) and ultimately the European microprocessor from [SiPearl](#), for improved power capacity and enhanced performance, to provide larger scale, faster and more efficient scientific simulations. Its OpenSequana architecture makes it fully compatible with any future computing blade and interconnect technologies, so users can easily scale up as and when needed. With a security-by-design approach, integrating vulnerability monitoring and threat anticipation, the BullSequana XH3000 ensures that data is powerfully protected.

The BullSequana XH3000 is planned to be available from Q4 2022.

Additional Information for journalists

Technical details

- **Increased performance** - up to 6x increase in computing power per m² and best computing power per m² on the market
- **Fully scalable** with a configuration from 1PFlops to 1 ExaFlops for digital simulation and to 10 ExaFlops for AI applications (when next-gen processing units will be on the market)
- **Flexibility** – can integrate the latest processing units, from providers such as AMD, Intel, NVIDIA and the future European processor EPI, which will go up to 1000W+ vs 350W today bringing improved power capacity/performance
- **Ready for now + future:** Supports current most-demanding tech + future tech (including future processing units which will come in next 6 years)
- **Energy-efficient:** Improved 4th Gen Direct Liquid Cooling (DLC): over 50% more cooling power than previous generations, in order to fit with latest generation CPU and GPUs consumption.
- Designed for both 'traditional' digital simulation and accelerated hybrid computing with HPC, AI and Quantum convergence.

- First generation of Atos supercomputer able to support a wide range of interconnect networks such as BXI, High Speed Ethernet and HDR & NDR InfiniBand.

About Atos

Atos is a global leader in digital transformation with 107,000 employees and annual revenue of over € 11 billion. European number one in cybersecurity, cloud and high performance computing, the Group provides tailored end-to-end solutions for all industries in 71 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), listed on Euronext Paris and included in the CAC 40 ESG and Next 20 Paris Stock indexes.

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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