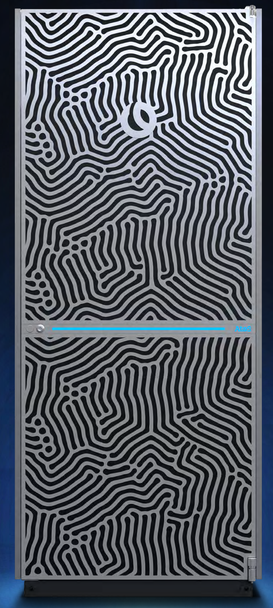
BullSequana XH3000

Forging your insight

The next-generation
Atos supercomputer



BullSequana XH3000

Forging your insight

Atos

Exascale

The gateway to scientific and industrial breakthroughs

- **Tackle the uncharted**
  Humanity is facing new challenges like global warning and the COVID-19 pandemic, which creates new business, economic and societal imperatives.

- **The incessant data deluge**
  New applications, new algorithms and new technologies such as ML and AI require enormous quantities of data that must be stored, transported, and processed during the training phase with an exponential need in terms of computing power.

- **Increased data complexity**
  Data is coming from diverse sources, like edge, cloud, hyperscalers and SMEs. Data quality, data structure and their origins add additional challenges in the way we analyze and simulate data.

Our Exascale strategy

The future of supercomputing is hybrid

Higher Performance

Lower Carbon footprint

Sovereignty

TOP 500 The List.

&

Global efficiency at scale

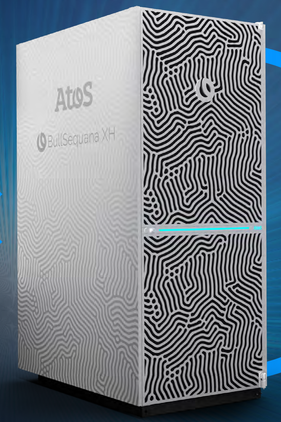
Accelerated Hybrid Computing

- Any hardware accelerator (GPU, IPU, QPU...).
- AI and/or Quantum based parameter reduction software to optimize simulation run time.

AI Optimized System efficiency & availability

- ML based predictive maintenance for maximum uptime.
- ML based hardware and software resource usage optimization.

BullSequana XH3000 + **Atos HPC Ecosystem**

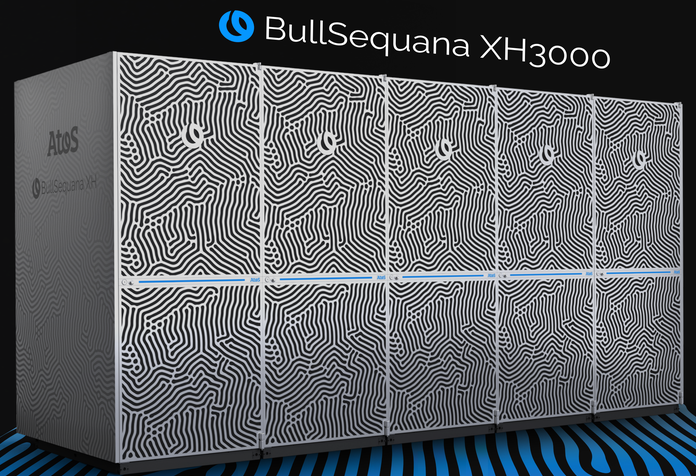


- Strong network of technology partners
- Open Sequana program
- Atos HPC Software Suites
- Atos HPC, AI & Quantum Centers of Excellence
- Atos Professional Services

Atos

The next-generation HPC supercomputer

Harness the power of greener hybrid supercomputing at any scale



Watch the vidéo

Ready for Accelerated Hybrid computing

- Most powerful computing technologies embedded.
- Ready for GPU and QPU acceleration next.

Unrivaled efficiency

- 4th generation DLC technology: 97% heat dispersion at 40°C inlet water temperature.
- Smart energy management, monitoring, profiling and capping.
- Lowest TCO.

Flexible and dense by design

- Standardized slots to mix and interchange compute and switch blades.
- Large choice of computing and interconnect technologies.
- Industry-leading density.

Any scale

- "All-In-One" rack design.
- Seamless scalability to ExaScale.

Open & future proof

- Standardized and modular design for easy future evolutions.
- Open Sequana Program to seamlessly integrate third-party party innovations.

Secure by design

- Embedded security with hardware-anchored secure boot.
- Vulnerability monitoring and threat anticipation.

Atos

Atos HPC Ecosystem

The cornerstone of unlimited innovation

Strong network of technology partners

AMD
intel.
NVIDIA
SIPEARL
The Silicon Pearl

Open Sequana program

Enables third-party companies to embed their innovations into compute blades that will integrate seamlessly into BullSequana XH3000 platform.

Atos HPC Software Suites

Robust, scalable and flexible software suites for your supercomputer and your applications:

- Smart Management Center: to operate HPC cluster at scale.
- Smart Software Suites: To understand, control and optimize energy, data and performance.
- Add-on AI capabilities: AI augmented simulation framework.
- Jarvice™: Seamless integration of HPC workloads in hybrid clouds.

Learn more

Atos HPC, AI and Quantum Centers of Excellence

- Tailored training to acquire new skills.
- Advice from experts to get started with porting, optimization and acceleration of simulations.
- Application and solution benchmarks.

Atos Professional Services

Broad range of onsite and remote services to support & optimize the installation, operation, maintenance, and decomissioning of your HPC System.

Atos

Greener HPC

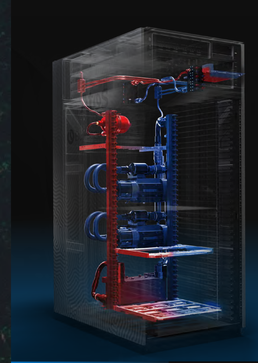
Part of our DNA

The GREEN 500

Leader in Green 500 with **42** Atos HPC systems listed*.

Learn more

* Nov 2021 listing



1 Pioneer in Direct Liquing Cooling (DLC)

Over a decade of innovation and 72 patents.

4th generation DLC technology: 97% heat dispersion at 40°C inlet water temperature.

3 Carbon-neutral manufacturing

2 Manage and optimize energy efficiency with Atos HPC Software suites

Smart Energy Management Suite — Learn more

to monitor, control and optimize energy consumption.

Jarvice™ — Learn more

to seamlessly run HPC workloads anywhere in the cloud .

4 Complete end-to-end green hydrogen solution to power data centers developed in collaboration with HDF energy

Learn more

Atos

Empower your digital and economic sovereignty

The European HPC leader

#1 in Europe
#2 Worldwide

for HPC, AI and Quantum as well as Cybersecurity.

Made in Europe

HPC, AI & Quantum solutions designed and manufactured in France.

Atos is powering

5 out of 7 supercomputers for EuroHPC JU program.

Atos contributes

to Europe's HPC projects and initiatives (EPI, EuroHPCJU, GAIA-X , etc . . .) to ensure long-term sovereignty.

with a global footprint

METEO FRANCE
SENAI CIMATEC
SISTEMA FIEB
Federação das Indústrias do Estado da Bahia
EuroHPC Joint Undertaking
GENCI
HPC at the service of knowledge
cea
CDAC
EDF
ECMWF
Hartree Centre
Science & Technology Facilities Council
DKRZ
DEUTSCHES KLIMARECHENZENTRUM
CINECA
JÜLICH
Forschungszentrum
PETROBRAS
OAK RIDGE
National Laboratory

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.

Visit us at BullSequana XH3000