

## Atos multiplies supercomputing capacity by 12 at CESGA in Spain with new "Finisterrae III"

**Santiago de Compostela (Galicia, Spain), Paris (France) July 29, 2021-** Atos has been selected by the [Galician Supercomputing Center \(CESGA\)](#), to design, deliver and install a new supercomputing system, named **Finisterrae III**, based on Atos' BullSequana X supercomputing architecture, that will multiply the current capacities of the center by twelve, while providing huge storage capacity. The contract also includes a **30-qubit [Atos Quantum Learning Machine \(Atos QLM30\)](#)**, which places CESGA as a pioneer in Spain in quantum simulation.

CESGA will use the supercomputer for research projects in collaboration with university and industry researchers in Galicia for various strategic areas of science and technology such as nanotechnology, new materials and industrial processes, health and life sciences and ocean sciences. It will also promote the use of HPC and Big Data in SMEs.

It will enable users to adopt new Artificial Intelligence, Machine Learning and Deep Learning techniques and use these in supercomputing. It will also promote Industry 4.0 and the **Industrial Digital Innovation Hub of Galicia**, bringing supercomputing techniques to public administrations and extending the use of supercomputing to other areas of knowledge, such as Social Sciences and Humanities.

The basic design principle of the **Finisterrae III** project is to provide a convenient, open, efficient, flexible, and adaptable infrastructure for different computational paradigms. In this sense, the project will provide access to emerging technologies, especially **Quantum Computing**, thanks to the **Atos QLM**, which will enable technicians, developers, and users to train on the machine.

*"We are proud to provide CESGA with this new supercomputing system designed with the latest technologies which is also a reliable and high-performance tool that contributes to the advancement of science and technology", said **Agnès Boudot, Senior Vice President, Head of HPC & Quantum at Atos.** "With this new contract Atos confirms its expertise in delivering high-performance computing solutions, opening computing new horizons to the constantly demanding needs of our customers."*

The objectives of CESGA are the universalization of Research, Development and Innovation (R&D&I), facilitating access to these resources to a greater number of entities and companies, as well as creating a link between areas of knowledge (mainstreaming); and supporting the increasing complexity of investigations.

## Quantum simulation

The **Atos QLM** is a simulator that enables users to develop, optimize and test quantum applications. Combining an ultra-compact, high-powered machine with a universal programming language. It enables researchers and engineers to develop and experiment with quantum software and is the world's only quantum software development and simulation apparatus. The system simulates the laws of physics, which are at the heart of quantum computing, to calculate the exact execution of a quantum program with double-digit precision.

For more information on the **Finisterrae III** project, visit the **CESGA** website: <https://www.cesga.es/en/what-we-do/supercomputing/>

###

### Technical specifications:

Finisterrae III will multiply the computing capacity of the previous CESGA supercomputer by twelve, providing a computing power of 4 PetaFLOPS through 354 computing nodes equipped with latest generation Intel Xeon Ice Lake 8352Y processors of 32 cores at 2.2GHz.

It also incorporates a total of 144 GPU accelerators: Nvidia A100 and Nvidia T4 GPU.

Together, the supercomputer nodes have 118 TB aggregate memory and 5 PB disk storage capacity based on NetApp technology.

**Storage** - For local storage, nodes include NVMe SSD solid state drives, with an aggregate capacity of 355TB and blazing-fast data input/ output speed. The new system also has a 20 PB capacity permanent data storage subsystem.

**Interconnect** - The nodes are connected by a high capacity, very low latency Infiniband HDR100 interconnect network.

### About Atos

Atos is a global leader in digital transformation with 105,000 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 operates under the brands Atos and Atos|Syntel. Atos is a SE (Societas Europaea), listed on the CAC40 Paris stock index.

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.

### Press Contacts:

**Global:** Laura Fau | [laura.fau@atos.net](mailto:laura.fau@atos.net) | +33 6 73 64 04 18 |  [@laurajanefau](https://twitter.com/laurajanefau)  
**Spain:** Christian Suell | [Christian.suell@atos.net](mailto:Christian.suell@atos.net) | +34 91 038 98 27