



Press release

The University of Reims Champagne-Ardenne (URCA) chooses Eviden for its new ROMEO supercomputer, powered by NVIDIA, and designed for Grand Est scientific research communities

Paris, France - May 30, 2024 - [Eviden](#), the leading [Atos](#) company in the field of advanced computing, today announces that it has been selected by the University of Reims Champagne-Ardenne (URCA) to supply the university with a new supercomputer for its Regional Computing Center ROMEO, located in Reims. This new equipment, which replaces URCA's previous supercomputer of the same name, is based on Eviden's BullSequana XH3000 technology, manufactured in Europe and offering a total capacity of 8 petaflops (i.e. 8 million billion calculations per second). The solution is powered by [NVIDIA GH200 Grace Hopper Superchips](#) and connected by [NVIDIA QUANTUM-2 InfiniBand](#) Networking. As part of this project, Eviden's Expertise Center in Performance Programming (CEPP) will support URCA for 5 years, providing expertise in advanced computing (HPC and AI). In maximizing workload efficiency, CEPP accelerates simulation, optimizes performance, and reduces cost to innovation.

This global solution will enable URCA to establish HPC research in Reims on a long-term basis, particularly in bioeconomics and environment sciences, and to extend its influence at the national and European level as part of the Grand Est Numérique Intensif (GENI) regional coordination program. In addition to its high level of performance and availability, this supercomputer will be one of the most eco-efficient machines in Europe, thanks to the extensive use of NVIDIA accelerated computing and networking technologies and hot-water cooling of the computing servers and rack, based on Eviden's patented DLC (direct liquid cooling) technology.

Bruno Lecointe, Group VP Business HPC AI & Quantum, Eviden, Atos Group, commented: *"We are delighted by the renewed confidence shown by URCA, with whom we have been working for many years. Thanks to this sovereign solution and our CEPP services, which mobilize our best experts in digital simulation, the academic research communities of the Grand Est region will have access to a supercomputer architecture that ranks among the top 500 most powerful in the world, and is one of the most energy efficient."*

Christophe Clément, President of URCA, said: *"We are delighted that the researchers and partners of the University of Reims Champagne-Ardenne will have access to such innovative equipment, which will not only meet their needs in terms of HPC, but also the growing demand for artificial intelligence in the Grand Est region, particularly in the fields of bioeconomics and the environment, simulation of the evolution of the universe, modeling of the fundamental structure of matter, and health. We look forward to continuing our long-standing collaboration with Eviden and NVIDIA for the benefit of our researchers, students, and businesses alike".*

John Josephakis, Global VP of Sales and Business Development for HPC and Supercomputing at NVIDIA, said: *"Accelerated computing is the most energy-efficient method of powering high-performance computing and AI, offering transformative potential for scientific fields. Systems such as ROMEO, based on NVIDIA Grace Hopper and NVIDIA Quantum-2 InfiniBand networking, help propel scientific research by delivering groundbreaking results in less time and using less energy."*

A strategic research center

In just a few years, 250 scientific projects have been carried out with the previous Romeo supercomputer in strategic fields such as chemistry, biochemistry, engineering sciences, mathematics, IT, health, and physics. For example, ROMEO has been involved in activities such as the identification of molecules active against COVID-19, the study of the diffusion of atmospheric pollutants in the region, the design of digital twins for the automotive industry, or the production of champagne in connection with plants.

Financed within the framework of the CPER by the French government, the Grand Est region, Europe (FEDER funds), the Greater Reims Urban Community, URCA, its foundation, and associated partners (Troyes University of Technology, AgroParisTech, and Reims University Hospital), the new ROMEO supercomputer will also be made available to students and will integrate collaborations or industrial services linked to the European projects EUMaster4HPC, Competence-Center-France, and eDIH Grand Est.

Configuration

THE DLC supercomputer is equipped with 232 NVIDIA GH200 Grace Hopper Superchips, 25,000 CPU cores, NVIDIA Quantum-2 InfiniBand networking and [NVIDIA Spectrum](#) 100Gbits Ethernet

- Accelerated partition: 58 quad NVIDIA GH200 Grace Hopper Superchip compute nodes (232 GPUs), Linpack power 8 petaflops
- CPU partition: 44 bi-socket compute nodes (10 BullSequana x440 servers and 4 BullSequana X430 servers) for a total of 8,448 cores
- 2,8 Po of IBM ESS storage, storage scale and archiving
- Datacenter: datacenter work
- Progress contract: CEPP and NVIDIA support

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About Eviden¹

[Eviden](#) is a next-generation technology leader specializing in reliable, sustainable, data-driven digital transformation, with a strong portfolio of patented technologies. Its position as a global leader in advanced computing, security, AI, cloud and digital platforms enables it to provide in-depth expertise for all business sectors, in over 47 countries. Bringing

together 47,000 world-class talents, Eviden expands the possibilities offered by data and technology across the digital continuum, today and for generations to come. Eviden is an Atos Group company with annual sales of around €5 billion.

About Atos

[Atos](#) is a global leader in digital transformation, with around 95,000 employees and annual sales of around €11 billion. The European leader in cybersecurity, cloud and high-performance computing, the Group provides tailored end-to-end solutions for all business sectors in 69 countries. A pioneer in decarbonization services and products, Atos is committed to a secure, decarbonized digital future for its customers. Atos is an SE (Societas Europaea), listed on Euronext Paris.

Atos' objective is to help shape 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. Throughout the world, the Group enables its customers and employees, as well as members of society as a whole, to live, work and develop sustainably, in a safe and secure information space.

Eviden activities include the following brands: AppCentrica, ATHEA, Cloudamize, Cloudbreach, Cryptovision, DataSentics, 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, 2024

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About the University of Reims Champagne-Ardenne

A multidisciplinary university of education and research, the University of Reims Champagne-Ardenne relies on 4 nationally and internationally recognized strategic clusters of excellence:

- A multidisciplinary cluster with an international dimension in agro-sciences, environment, biotechnologies and bioeconomy (AEBB), taking into account, in a region with a strong agricultural and wine-growing economy, the sustainable production of biomass, its transformation by green chemistry and biotechnologies, the ecological transition and climate change, supported by the PIA EXEBIO;
- A health cluster, with a number of excellent scientific niches and a rich and varied range of medical and paramedical training courses;
- A digital and engineering sciences cluster (SNI) focusing on high-performance computing, industry 4.0, artificial intelligence, materials and technological transformations;
- A Human and Social Sciences (SHS) cluster focused on transformation, transition and mutation.

The University of Reims Champagne-Ardenne in figures: 27,500 students, over 120 degrees, 34 research laboratories including 4 CNRS, 1 INSERM, 2 INRAE, 1 INERIS, 1 ANSES, 1 CEA, 15 technical platforms, 2,500 staff including 850 teacher-researchers, 5th largest employer in the Champagne-Ardenne region, over €818 million in economic impact, 20,000 jobs generated including 10,000 in France, €257 million budget.

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