



Press Release

CEA uses Atos simulator at the CCRT to explore the potential of quantum computing in industry

Paris, June 27, 2018 – The Centre of Computation Research and Technology (CCRT), located at the CEA (French Alternative Energies and Atomic Energy Commission) center in Bruyères-le-Châtel, and Atos, global leader in digital transformation, are collaborating to provide CCRT's industrial users with one of the most powerful quantum simulators in the world. Built by Atos, the machine will allow partners such as EDF, Safran, IFPEN, and the CEA itself to evaluate the potential of quantum technologies with regard to their specific needs.



The Atos Quantum Learning Machine (QLM) is a simulator that will allow CCRT (Centre de calcul recherche et technologie) partners to experiment with disruptive technologies to better manage the evolution of their applications and to meet the challenges associated with digital simulation, Big Data, and even Artificial Intelligence and Machine Learning.

Several industrial partners of the CCRT and the CEA have already identified and started to work on use cases to which quantum computing will make a decisive contribution.

To achieve this, the Atos Quantum Learning Machine offers a fast and efficient way to test and validate algorithms by simulating physical or logical quantum bits (qubits).

This initiative complements the one announced by Teratec¹ to set up a competence center in quantum computing to create a dynamic ecosystem on the same site in Bruyères-le-Châtel, bringing together, industry users, and research centers in a bid to acquire skills quickly and develop further expertise in the field of quantum computing.

In future, the simulator will also be supplemented and opened to other research communities via GENCI².

¹ www.teratec.eu

² Created in 2007 by the public authorities, GENCI (Grand équipement national de calcul intensif) is a civil society whose objective is to democratize the use of digital simulation and supercomputing to support French competitiveness in all the areas of science and industry. (www.genci.fr)



On May 22, 2018, Atos and the CEA launched an industrial chair with the aim of developing research and innovation in quantum computing.

About Atos

Atos is a global leader in digital transformation with approximately 100,000 employees in 73 countries and annual revenue of around € 12 billion. European number one in Big Data, Cybersecurity, High Performance Computing and Digital Workplace, the Group provides Cloud services, Infrastructure & Data Management, Business & Platform solutions, as well as transactional services through Worldline, the European leader in the payment industry. With its cutting-edge technologies, digital expertise and industry knowledge, Atos supports the digital transformation of its clients across various business sectors: Defense, Financial Services, Health, Manufacturing, Media, Energy & Utilities, Public sector, Retail, Telecommunications and Transportation. The Group is the Worldwide Information Technology Partner for the Olympic & Paralympic Games and operates under the brands Atos, Atos Consulting, Atos Worldgrid, Bull, Canopy, Unify and Worldline. Atos SE (Societas Europaea) is listed on the CAC40 Paris stock index.

Press contact:

Sylvie Raybaud – sylvie.raybaud@atos.net - +33 6 95 91 96 71 - [@Sylvie_Raybaud](https://twitter.com/Sylvie_Raybaud)

About CEA

CEA - French Alternative Energies and Atomic Energy Commission - is a public research organisation active in four main areas: defence and security, nuclear and renewable energies, technological research for industry, and fundamental research. Drawing on its widely acknowledged expertise, CEA actively participates in collaborative projects with a large number of academic and industrial partners. Backed by its 20,000 researchers and employees, it is a leading player in the European Research Area and is constantly expanding its international outreach. In 2017, Thomson-Reuters / Clarivate identified the CEA as the most innovative public research organization in Europe.

To learn more about CEA and quantic research ; <http://www.cea.fr/english>

Press contact: Nicolas Tilly – nicolas.tilly@cea.fr - +33 1 64 50 17 16 - [@CEA_Recherche](https://twitter.com/CEA_Recherche)