Press release

Atos coordinates NEASQC, an ambitious European project to lead the future quantum computing revolution

Paris, 5 October 2020 - Atos, a global leader in digital transformation, announces its participation in the European project NEASQC[1], whose ambition is to prepare European businesses for the age of quantum computing by exploring a wide selection of industrial and financial use cases, and associated algorithms, compatible with NISQ[2] computers, the first quantum systems to be available in the near future. Atos will coordinate and work hand-in-hand with the 11 other partners, leading industrial end-users and academic experts from 8 European countries, to initiate an active European community around NISQ Quantum Computing.

While quantum computers may not yet be ready, organizations looking to tap into the power of quantum computing can already experiment by using dedicated programming and simulation platforms, such as Atos' Quantum Learning Machine (Atos QLM). However, the lack of application libraries makes its very difficult for non-expert users to imagine and anticipate the value that such an influx of computing power will bring.

NEASQC addresses this gap by investigating 9 industrial use cases that are likely to benefit significantly from NISQ quantum computing. These use cases include practical problems that will directly benefit European businesses and citizens: drug discovery, breast cancer detection, CO2 capture, smart energy management and natural language processing for example. The project will then develop open source libraries needed for those use cases, to encourage industrial end-users to start the move to quantum computing.

Atos will coordinate and manage the roll-out of the NEASQC project, leading the user group that will be made up of the partners involved in quantum software developments, as well as external end-users of the NEASQC programming environment. Atos is also responsible for the 'Programming Framework & Hardware' aspects, within the 'technology enablement' part of the project.

In addition, Atos will provide the quantum programming environment, Atos myQLM, whose vendor lock-in free approach guarantees a full compatibility with the quantum processors developed within the European Flagship on Quantum Technologies. Atos will develop and integrate open source NISQ application libraries in conjunction with the various use cases covered by the NEASQC project.

> *"As an international company with European roots, we are proud to support the NEASQC project with our advanced technologies and expertise in quantum computing. Quantum computing has the potential to change the game in such fields as logistics, manufacturing, finance or energy but it needs to gain the trust of users*

[1] NExt ApplicationS of Quantum Computing
[2] Noisy Intermediate-Scale Quantum

to realize that potential. The next few years will be very exciting but also critical for those looking to achieve success in this field and we hope that our contribution will help position European organizations at the forefront of quantum computing experimentation," explained **Cyril Allouche, Fellow VP, Head of the Atos Quantum R&D Program at Atos, and coordinator of the NEASQC project**.

The 4-year project has a budget of 4.67 million Euros, funded by under the European Horizon2020 program.

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About Atos
Atos is a global leader in digital transformation with 110,000 employees in 73 countries and annual revenue of € 12 billion. European number one in Cloud, Cybersecurity and High-Performance Computing, the Group provides end-to-end Orchestrated Hybrid Cloud, Big Data, Business Applications and Digital Workplace solutions. The Group is the Worldwide Information Technology Partner for the Olympic & Paralympic Games and operates under the brands Atos, Atos|Syntel, and Unify. 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.

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