

Atos delivers its first GPU-accelerated Quantum Learning Machine to the Irish Centre for High-End Computing (ICHEC)

Dublin, Ireland and Paris, France - 17 December 2020 – Atos today announces it will deliver its first GPU-accelerated [Atos Quantum Learning Machine Enhanced](#) (Atos QLM E), the world's highest-performing commercially available quantum simulator, to the Irish Centre for High-End Computing (ICHEC).

The Atos QLM E will be integrated with the Irish national supercomputer 'Kay' and equipped with a variety of quantum software programming tools. As a hybrid HPC-Quantum Computing environment, the integrated Kay-Atos QLM E platform will serve the [Quantum Programming Ireland \(QPI\) Initiative](#) for conducting R&D and national-level skills development activities in quantum technologies by ICHEC as well as other Irish organizations in academic, enterprise and public sector.

Offering up to 12 times more computation speed than the original Atos QLM, the Atos QLM E is also an integral component of the 'NEASQC' project, in the €1 bn European flagship quantum initiative, of which Ireland is a partner along with 11 other European companies and research labs, and [coordinated by Atos](#).

Once the Atos QLM E is delivered on-premise, Atos will provide a fast-track training program and continue to enhance the system throughout its lifetime to ensure that it delivers the functionality required in this fast-moving discipline of quantum computing.

Prof. Jean-Christophe ("JC") Desplat, Director at ICHEC, said: *"As Ireland's high performance computing authority, we're committed to using the power of technology to solve some of the toughest challenges across public, academic and enterprise sectors. Working with a number of partners across Europe, we look forward to utilizing the Atos QLM E related for R&D on a number of scientific and industry-relevant quantum computing use-cases and supporting scientific breakthroughs in high-performance computing."*

Agnès Boudot, Senior Vice President, Head of HPC & Quantum at Atos, said: *"As the first Atos QLM E deployed globally, this partnership marks an important milestone in our Quantum Program. We look forward to supporting ICHEC on their quantum journey, helping them explore with their users the huge potential that quantum computing offers. The solution will provide a scalable, future-proof, national framework for the porting of hybrid applications, and for the training and skills development of Irish researchers, and ICHEC's partners across Europe."*

Atos QLM E has been optimized to drastically reduce the simulation time of hybrid classical-quantum algorithms simulations, leading to quicker progress in application research.

Atos, a pioneer in quantum

In 2016, Atos launched '[Atos Quantum](#)' an ambitious program to anticipate the future of quantum computing. As a result of this initiative, Atos was the first organization to offer a [quantum noise simulation module](#) within its Atos QLM offer. Atos QLM is being used in numerous countries worldwide including [Austria](#), [Finland](#), [France](#), [Germany](#), [India](#), Italy, [Japan](#), the Netherlands, Senegal, [UK](#) and the [United States](#), empowering major research programs in various sectors like industry or [energy](#). Recently, Atos introduced "[Q-score](#)",

the first universal quantum metrics reference, applicable to all programmable quantum processors.

About Atos

Atos is a global leader in digital transformation with 110,000 employees and annual revenue of € 12 billion. European number one in cybersecurity, cloud and high performance computing, the group provides tailored end-to-end solutions for all industries in 73 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.

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