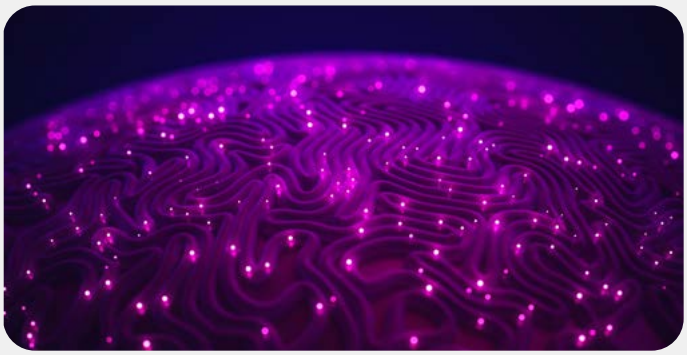
QSIP Innovation Intelligence Digest – February 2025

Quantum Sweden Innovation Intelligence Digest (QSIID) is a curated monthly newsletter with external quantum innovation business news from around the globe.

Quantum mechanics was discovered 100 years ago, but 100 years of quantum is just the beginning. UNESCO welcomed delegates in Paris (3-5 February 2025) to celebrate the International Year of Quantum Science and Technology. The mission of this occasion and initiative is to "help raise public awareness of the importance and impact of quantum science and applications on all aspects of life." Read more here.

A recent study by researchers from Peking University highlights the potential of nuclear electric resonance to control the nuclear spins of nitrogen atoms in DNA using electric field gradients. This breakthrough suggests that DNA could one day be manipulated for computational purposes. Read more here.



The European Commission invests €3 million to develop first-ever quantum chip that combines electronics and light using advanced Germanium-Silicon technology. Supported by the Quantum Flagship, ONCHIPS consortium is developing a new type of quantum hardware with advanced materials that have never been combined before. The consortium's goal is to make quantum computers faster, more efficient, and scalable and includes leading institutions from across Europe. Read more here.

The European High Performance Computing Joint Undertaking (EuroHPC JU) has signed a procurement contract with Qilimanjaro Quantum Tech to develop MareNostrum-Ona, Europe's first quantum annealer, which will integrate into Spain's MareNostrum 5 supercomputer and launch with at least 10 qubits by 2025. Read more here.

Tata Consultancy Services (TCS) is opening its fourth IT delivery center in France, where its target is the aerospace and defense sectors, and its focus is on AI and quantum computing technologies. One area that TCS sees great potential is the use of quantum computing to help reduce the carbon emissions from the aerospace industry. By making planes lighter and optimizing flight routes emissions can be reduced, both achieved through the help of quantum solutions. Read more here.

The Leap Quantum LaunchPad is D-Wave's new program used for annealing quantum computing technology and includes hands-on, expert support. A free trail 3-month trial is offered to participants, which aims to help speed up the development and deployment of the software. Read more here.

An ideal application for quantum computers lies in the complex planning processes of air trafficranging from flight scheduling and crew deployment to flight route planning. Over the next two years, Lufthansa Industry Solutions (LHIND), in collaboration with various institutes of the German Aerospace Center (DLR), will research how quantum computers can elevate airlines' strategic and tactical planning to a new level. Read more here.

As the number and percentage of EV cars sold grows so do does the need for advanced energy supply and optimization tools. Fortunately, collaborating companies Pasqal, GENCI, and EDF, have successfully demonstrated energy demand forecasting on more than 100 qubits. This illustrates quantum computing's potential to resolve challenges posed by the increase in EV adoption and their integration into a renewable energy system. Read more here.

Funded by the Spanish government, the world's first quantum key distribution system from a geostationary orbit (QKD-GEO) aims to establish secure communications to safeguard critical infrastructure, government, and corporate data. Thales Alenia Space and Hispasat are partners on the project and hope to pave the way for a future quantum internet. Read more here.

In one of his last actions as President of the U.S., Joe Biden issued a sweeping executive order to strengthen the nation's cybersecurity, the dual powers of artificial intelligence and quantum computing technologies as both tools of transformation and emerging threats. The directive includes measures to secure critical software, protect digital infrastructure and prepare for quantum-resistant encryption. Read more here.

Multiverse Computing and Kinesis Network Inc. have formed a partnership that offers customers an integrated solution to improve AI efficiency and sustainability. By joining forces that optimize AI performance, the collaboration also addresses mounting energy challenges of AI workloads, setting a benchmark for environmentally conscious innovation. Read more here.

QSIP – Empowering Sweden's Quantum Innovation Future