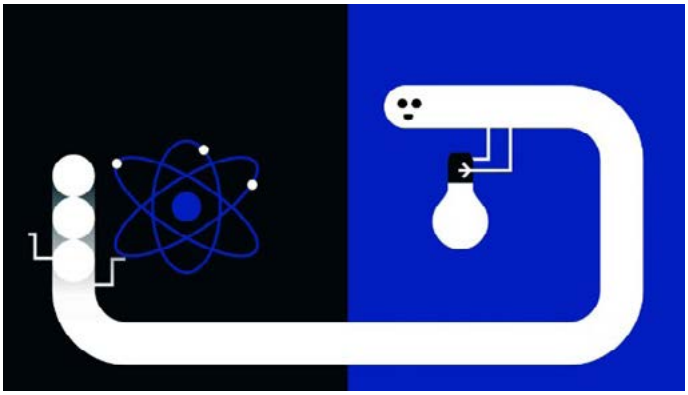
Quantum Sweden Innovation Intelligence Digest (QSIID) is a curated monthly newsletter with external quantum innovation business news from around the globe.

Sweden and Singapore are deepening their partnership in quantum technology through a newly signed Memorandum of Understanding (MoU), which was signed in Singapore by Mr. Ling Keok Tong, NQO, and Dr. Camilla Johansson, QSIP (led by Chalmers Industriteknik). This agreement brings together leading universities, research institutes, and national initiatives from both countries, with the shared goal of fostering long-term collaboration in research, innovation, and industrial applications of quantum technologies - an area of strategic importance for the future of foundational technologies.
Read more here.

QSIP – Empowering Sweden's Quantum Innovation Future

Since its launch in July, EIFO and the Novo Nordisk Foundation have been working diligently to find the right CEO for the new Nordic quantum initiative, QuNorth. The appointment has gone to Swedish national Ebba Carbonnier, who will take up the role on November 1. As CEO, she will lead the development and operation of the world's most powerful quantum computer, Magne, providing Nordic researchers and companies with access to cutting-edge technology.
Read more here.

Ebba Carbonnier previously served as Director of the Swedish Quantum Life Science Centre at Karolinska Institutet, developing Quantum Life Science applications. She co-authored Sweden's official quantum strategy and founded the Nordic Quantum Life Science Roundtable in 2021, an annual conference and a network of researchers, industry leaders, and funding partners aimed at fostering collaboration, innovation and use cases in quantum technology. She also brings 14 years of experience as a management consultant, having worked with companies including Microsoft, AstraZeneca, and Ericsson.
Read more here.



The Royal Swedish Academy of Sciences has awarded the Nobel Prize in Physics 2025 to John Clark of University of California Berkeley, Michel H. Devoret from both Yale University and University of California Santa Barbara, and John M. Martinis of the University of California Santa Barbara. A major question in physics is the maximum size of a system that can demonstrate quantum mechanical effects. The laureates' experiments on a chip demonstrated that quantum mechanical properties can be made concrete on a macroscopic scale, demonstrating both quantum mechanical tunnelling and quantised energy levels in a system big enough to be held in the hand.
Read more here.

Illustration: ©Johan Jarnestad/The Royal Swedish Academy of Sciences

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IonQ and D-Wave, two U.S. quantum computing firms, have joined as founding members of Q-Alliance, a new initiative in Lombardy aiming to become "the world's most powerful quantum hub."

Launched in Como with government backing, the alliance seeks to advance quantum research and industrial use as part of Italy's digital transformation. Supported by the Interministerial Committee for Digital Transition and Undersecretary Alessio Butti, Q-Alliance will connect universities, researchers, and industry. It will also train young scientists, foster cross-disciplinary collaboration, and help establish Italy as a European leader in quantum technology.
Read more here.

EARTO, the organisation of the European Research and Technology Organisations, awarded SemiQon and VTT first prize in the "Impact Expected" category on 14 October 2025 in Brussels for a pioneering cryogenic CMOS (complementary metal-oxide semiconductor) chip innovation. The solution enables the full capacity of advanced CMOS functionalities at cryogenic temperatures, thereby unlocking new possibilities for quantum computing and space applications.
Read more here.

China has tightened its restrictions on rare earth mineral exports, requiring export licenses for technologies and products related to rare earths, which are essential for many advanced technologies including quantum computers. Rare elements such as ytterbium, erbium, europium, neodymium and yttrium form the hidden foundation of quantum technologies, enabling qubits, quantum memories, and photonic connections. Controlling about 70% of global rare-earth mining and 90% of refining capacity China dominates the global supply chain, making Western economies far too dependent and behind in diversifying their processing streams.
Read more here & here.

IBM has launched **Guardium Cryptography Manager**, an AI-powered system designed to help enterprises secure data and manage encryption as the era of quantum computing draws closer. The new solution addresses a growing concern in cybersecurity that future quantum machines could break the cryptographic protections that secure most of today's digital information. According to Vishal Kamat, vice president of IBM data security, organizations face a dual challenge. Sensitive data now sprawls across hybrid and multi-cloud environments, expanding the attack surface, while the eventual arrival of quantum computers threatens to render much of current encryption obsolete.
Read more here.

Atlantic Quantum, a team of quantum experts from MIT and Chalmers University, has announced that they have officially joined Google Quantum AI to “build quantum computing for otherwise unsolvable problems”.

Atlantic Quantum emerged from cutting-edge research conducted at the Department of Microtechnology and Nanoscience and the Wallenberg Centre for Quantum Technology (WACQT) at Chalmers University of Technology, in collaboration with the Massachusetts Institute of Technology (MIT). The company was officially spun out from Will Oliver’s Engineering Quantum Systems Group at MIT in 2022, with the mission to build a scalable quantum computer capable of solving real-world problems.
Read more here.

ConScience has been recognized as a DI Gasell 2025, an honor for Sweden’s swiftest-growing enterprises, designated by Dagens Industri’s esteemed Gasell survey. Achieving this status is a privilege bestowed upon less than 1% of Swedish limited firms. The award is based on robust, sustainable, and organic growth with healthy profits over the last four years. To be a Gasell, a company must surpass SEK 10 million in sales, employ at least 10 people, double its revenue in four years, and maintain organic growth with positive financials.
Read more here.

Wave Function Ventures is excited to announce the f inal close of its $15M Fund I. Wave Function was created to partner with deep tech founders building hardware solutions to the world’s most important problems. energy, robotics, and infrastructure and partners with founders at the earliest stages. In some cases, Wave Function will invest pre-incorporation, where Jamie can help founders shape rough ideas into compelling product plans and visions. Fund I has already made nine investments spanning those sectors, and the portfolio has shown strong traction, including multiple follow-on investments from top-tier firms.
Read more here.

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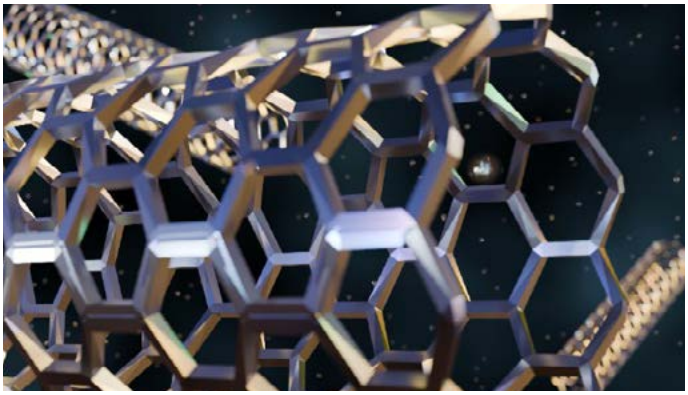
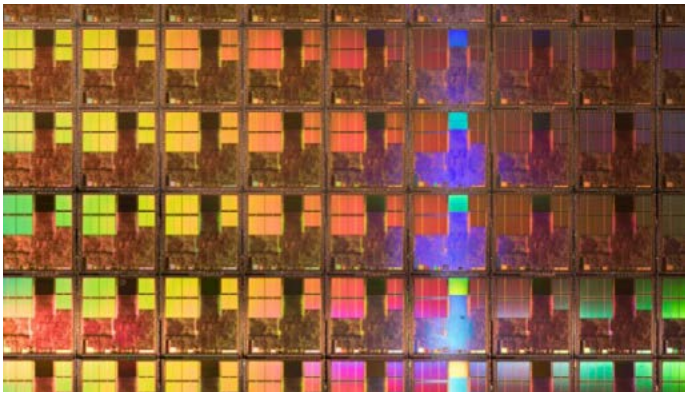
55 North, the world’s largest dedicated quantum technology venture capital fund, today announced the first close of its €300m inaugural Fund I at €134 million, establishing its position as the sector’s largest pure-play quantum VC. Headquartered in Denmark, 55 North will be investing stage-agnostically across the globe, and has already executed two investments, backing European quantum leader IQM in the company’s latest €275m Series B, and co-leading the investment in Kiutra’s €13m Series A-2.
Read more here.

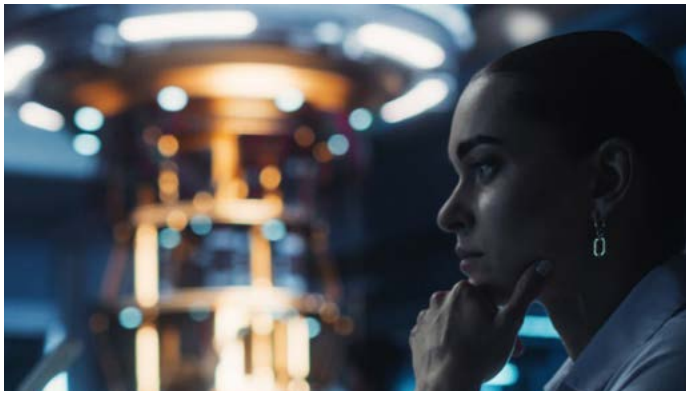
The European Space agency’s (ESA) Security And cryptoGrAphic (SAGA) mission has entered the system definition and preliminary design phase (Phase B2), marking the beginning of the development of the first quantum key sharing mission designed for European governments. A world leading aerospace consortium led by Thales Alenia Spacehas won a €50 million contract to design the mission. The aim of the mission is to design, develop and demonstrate how space-based quantum key distribution (QKD) services can bring a new level of security for Europe.
Read more here.



IonQ announced that it has achieved a record algorithmic qubit score of #AQ 64. This milestone was achieved on an IonQ Tempo system, three months ahead of schedule, establishing IonQ as the only company to reach #AQ 64 setting a new standard for quantum systems. #AQ benchmarks measure a quantum system's ability to run quantum algorithms of increasing complexity and size while maintaining high fidelity.
Read more here.



Imec, a world-leading research and innovation hub in nanoelectronics and digital technologies, and Diraq, a pioneer of silicon-based quantum computing, have demonstrated that industrially made silicon quantum dot qubits consistently show error rates that surpass the values needed for quantum error correction. The results, reported in **Nature**, show that Diraq's qubits can be manufactured reliably with the tools of the silicon microchip trade, confirming the potential of imec's industrial manufacturing techniques for developing large-scale silicon-based quantum computers.
Read more here.



Quantum for Everyone

Following the **successful launch of the National Quantum Course** in The Hague on World Quantum Day last year, the next major step in bringing quantum technology closer to the public is already underway in this UN International Year of Quantum Science and Technology. On July 11, the International Quantum Course - an initiative designed to make quantum knowledge accessible to anyone, anywhere in the world - was launched at the closing ceremony of ITU's AI for Good Summit in Geneva. Funded by Quantum Delta NL and developed by a team of experts led by Jim Stolze and launched together with UNICC and ITU, the International Quantum Course is a free online program, that unveils the complexities of quantum mechanics, highlights current developments in quantum technology, and explores its future implications. The course is currently available in Dutch, English and German, with more languages expected in the future.
Read more here.
