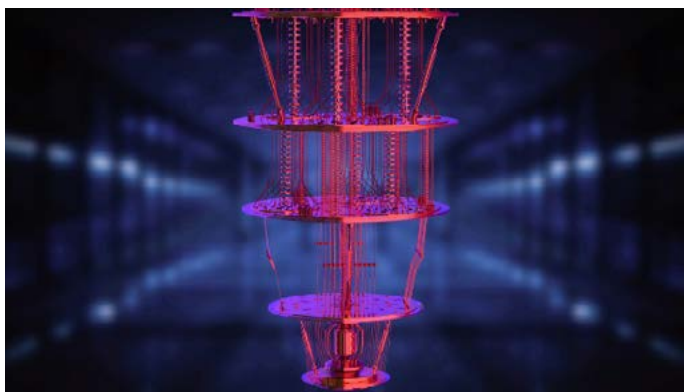




Quantum Sweden Innovation Intelligence Digest (QSII) is a curated monthly newsletter with external quantum innovation business news from around the globe.

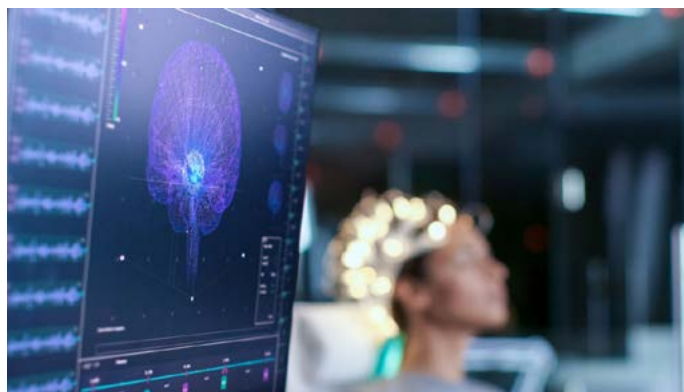


EIFO and the Novo Nordisk Foundation are allocating €80 million to create QuNorth, a pioneering Nordic quantum initiative. QuNorth aims to procure and manage Magne, the most advanced gate-based quantum computer available commercially. Magne will be among the first Level 2 quantum systems worldwide, utilizing logical qubits for computations. This initiative will significantly enhance Denmark and the Nordic region's research and commercial capabilities, strengthening their position in the global landscape.

[Read more here.](#)

Norwegian Prime Minister, Jonas Gahr Støre, announced a NOK 1 billion investment in quantum technology over the next five years. "Today, we are launching a historic initiative for Norway as a technology nation. We know that quantum technology will be of great importance for Norwegian competitiveness and national security. Norway must develop expertise and capacity in critical technologies, which are important for our national sovereignty."

[Read more here.](#)



Moderna and IBM have partnered up to apply quantum technology to mRNA medicine design. "Our goal is to improve human health. We believe it's critical to explore every available tool—including quantum computing—to scale our progress today, rather than wait for the technology to fully mature in the future" Alexey Galda, Associate Scientific Director, Quantum Algorithms and Applications at Moderna.

[Read more here.](#)

IBM and AMD have unveiled plans to craft next-generation computing frameworks by merging quantum computing with high-performance computing, an approach referred to as quantum-centric supercomputing. The two companies are joining forces to create scalable, open-source platforms with the potential to revolutionize the future landscape of computing. This collaboration leverages IBM's prowess in developing the globe's most advanced quantum computers and software, alongside AMD's expertise in high-performance computing and AI.

[Read more here.](#)

IonQ announced new U.S. patents that expand its intellectual property portfolio to more than 1,000 licensed, owned, or controlled patents and applications in trapped-ion quantum computing and networking.

“These patents position IonQ to continue to develop scalable, high-performance, cost-effective systems that accelerate the timeline for unparalleled commercial quantum advantage” say Niccolo de Masi, Chairman and CEO of IonQ.

[Read more here.](#)



IonQ seems to be the “it” quantum computing company of the summer, with both Amazon and Morgan Stanley Investment Management (MSIM) disclosing large stakes in the company, which is forming a growing roster of institutional investors.

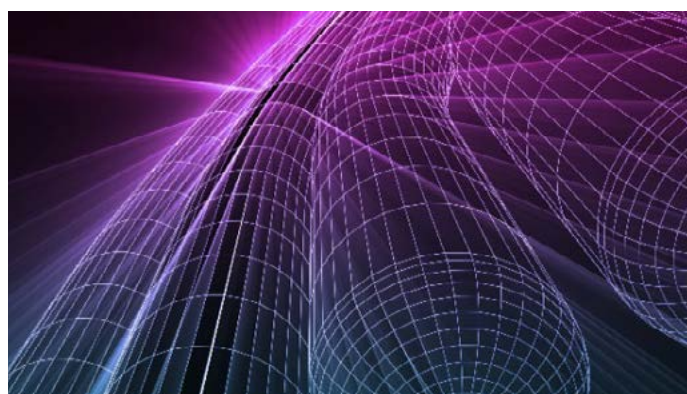
Amazon disclosed a 36.7 million USD stake (the largest publicly known tech company investor in a quantum hardware company) and MSIM has disclosed a 7% stake, leading to rising expectations of institutional interest in next-generation computing.

[Read more here](#) and [here.](#)



At Playground Global’s Next-Gen Compute event during Deep Tech Week San Francisco, three companies: PsiQuantum, Ideon Technologies, and NVision laid out a vision grounded not in academic research but in solving real-world problems. Their work, although vastly different in domains, signals a broader shift underway in quantum technology, as the field pivots from lab to application. This trend was highlighted by the pressing challenges, including detecting disease, that these companies are applying the unique advantage of quantum science to remedy.

[Read more here.](#)



Microsoft CEO Satya Nadella said quantum computing will be the next major accelerator in cloud technology, marking a notable shift in the company’s long-term strategic focus. “The next big accelerator in the cloud will be quantum and I’m excited about our progress,” said Nadella. This statement and the company’s announcement of the world’s first operational deployment of a Level 2 quantum computer, signals Microsoft’s intent to expand beyond traditional cloud and AI infrastructure and invest in technologies with longer time horizons.

[Read more here](#) and [here.](#)

D-Wave has released a new open-source toolkit, a part of their Ocean™ software suite, that allows developers to use quantum computers to help train AI models, which focus on machine learning tasks such as image generation and pattern recognition. Early collaborations have led to promising results, including improved AI training speed and accuracy over classical methods in drug discovery, protein-DNA analysis, and high-energy physics simulation.

[Read more here.](#)

QSIP – Empowering Sweden’s Quantum Innovation Future



Zero Point Cryogenics, a Canadian-based company, has received a US patent for its “Phase Separation Refrigerator” (PSR), which is the first technology of its kind in more than 60 years. This cryogenic system could simplify access to ultra-cold temperatures needed for quantum research and other advanced physics applications, that need continuous cooling below 1 kelvin.

[Read more here.](#)



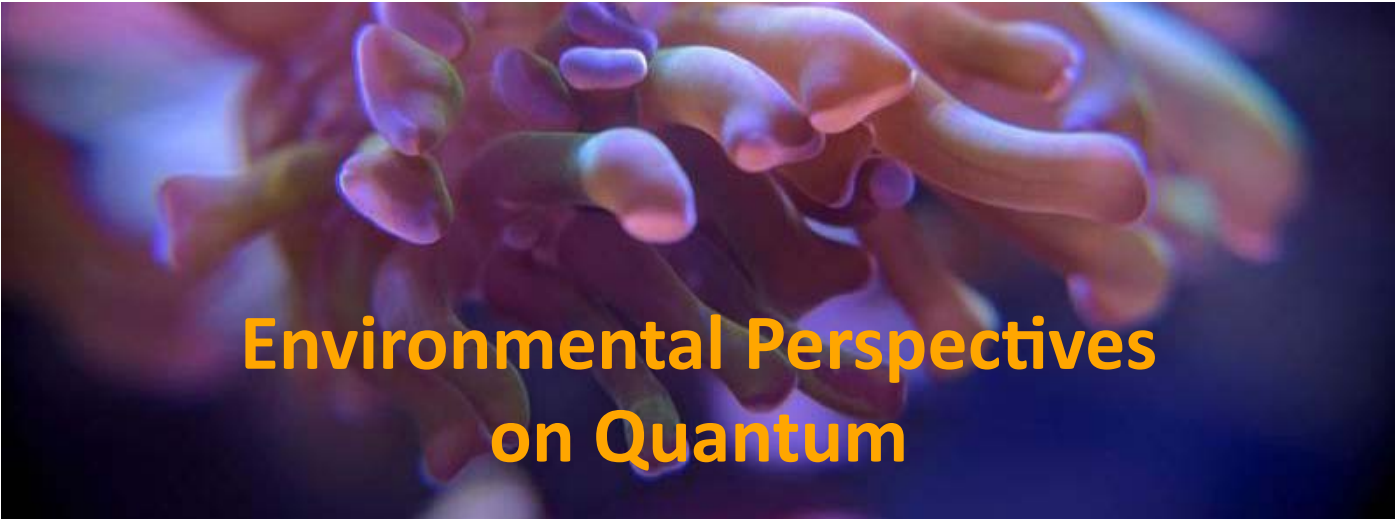
The Ministry of Economy, Trade and Industry (METI) in Japan, will support major corporations such as Fujitsu and KDDI, along with emerging startups, with roughly 50 billion yen (approximately \$335 million USD or 3,187,669,985SEK), to build out a comprehensive national quantum ecosystem. This investment comes amid increasing competition over quantum computing and demonstrates the Japanese government’s commitment to compete with the US and China.

- Fujitsu has announced plans to build a superconducting quantum computer with over 10,000 physical qubits and 250 logical qubits by fiscal 2030.
- KDDI will lead a NEDO-funded project to develop an AI-quantum common platform aimed at accelerating industrial use of quantum computers by fiscal 2027.

Japan has also launched a domestically built superconducting quantum computer at Osaka University’s QIQB, marking full national self-reliance in quantum hardware and software. It will be a part of Expo 2025 in Osaka as a part of the public exhibit combining remote access, interactive education, and quantum-generated art.

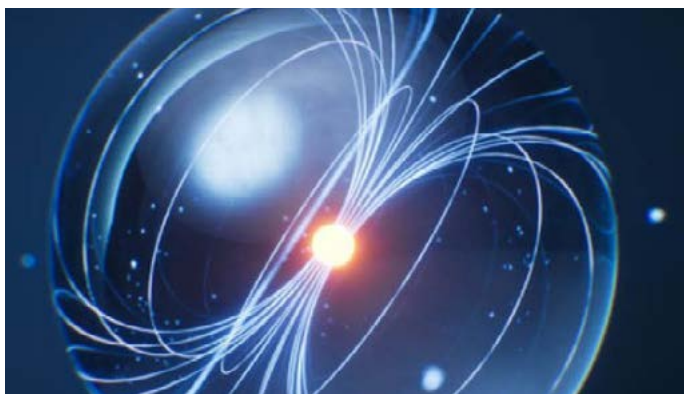
[Read more here](#) and [here.](#)

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Environmental Perspectives on Quantum

Quantum news with a focus on the technology's effect on the environment and efforts towards sustainability.



In a blog post by Theodore Sizer, Head of Optical Systems and Device Research at Nokia Bell Labs he addresses, in stark terms, that our hunger from data capacity comes at a cost to the environment and poses an “existential problem for the communications industry”. As the world’s data consumption increases the power required by our networks increases as well, and we are reaching a point that is “simply unsustainable”. Sizer states, that “on our current trajectory, data demand in 2045 will be 100 times greater than it is today... Planet Earth simply doesn’t have the natural resources to support that kind of growth using current networking capabilities.”

[Read more here.](#)



This opinion piece, by Anthony Hié, Chief Digital Officer at Excelia Group, covers the important issue of data centers, sustainability, and water.

[Read more here.](#)



Check out this EU funded initiative, [Quantum for Good](#) which is a collaborative movement that leverages quantum technology to address sustainability challenges like microplastics, a clean energy transition and water use, thus empowering solutions for a sustainable future.
