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Happy Friday!

A look at this week's BIG stories.

This week saw The University of Calgary, Quantum City, and PASQAL join forces to bolster the quantum ecosystem in Alberta, while the quantum simulation industry saw a breakthrough in Fujitsu's optimized quantum simulations.

On the commercial front, Diraq has inaugurated a new commercial laboratory in Sydney intending to drive the era of fault-tolerant quantum computing, while IonQ managed to achieve ion-photon entanglement.

Finally, a new post-quantum cryptographic protocol was also launched that has been selected by NIST as a standard for post-quantum encryption.

The quantum realm witnessed key collaborations such as Q-CTRL merging with players like Wolfram and Keysight while enhancing quantum research across algorithms, hardware, and education.

Companies also released new quantum processors, products, and tools for simulations, optimization of lead times, designs, and circuitry.

Notable advancements include the QCCD architecture with 32 qubits, LINQER600 for controlling hundreds of qubits, and a collaboration for quantum-resistant encryption in home routers.

TQI Weekly Newsletter -- 💰 Maybell and Multiverse Make Money 🔥 Next Quantum Hotbeds ... Plus More Quantum News & Industry Updates
And in a significant move, a quantum hardware manufacturer secured \$5 million in seed funding, led by 'Corporate Fuel' and 'Caruso Ventures' to accelerate new product introductions and expand market reach.

Plus more news from around the quantum community -- let's dig in.

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This week's Qbite:

- Maybell Quantum \$25 Million Round
 - Multiverse Computing Adds €25 Million
 - Chevron Joins OQC Series B
 - SEEQ-GPT
 - Tomorrow's Quantum Hotbeds
 - Nokia Leads The Charge
 - Open Quantum Institute Opens
 - A Quantum System In A Weekend?
 - Canadian Quantum Sensing
 - Trapped Ions Will Scale
 - Qopyright
 - China's Quantum Independence
 - Finally, Vescent gets the spotlight
-

Notes for this week

Matt Swayne, Editor of The Quantum Insider

Our congratulations to the teams of Maybell Quantum and Multiverse Computing.

Maybell -- a Colorado-based quantum pioneer -- announced a \$25 million funding round, led by Cerberus. Multiverse Computing revealed its €25 million Series A this week.

(We should also mention that Chevron joined OQC's Series B and Vescent received \$5 million in seed funding. So, a pretty robust week of funding activity in quantum.)

You can read more about these rounds in our spotlight story, but it's interesting to note some similarities between the companies, even though they are operating in different segments of the quantum value chain. Both are pioneering quantum companies. Both have highly regarded leadership teams and deep science roots. And both are ecosystem advocates -- they appreciate their communities and serve as exemplars of those ecosystems.

Working in Quantum Video Series

The Working in Quantum series, a partnership between Oxford Instruments and TQI, offers a glimpse into the working world of quantum technology and explores the skills, experience and support needed in order to build a workforce that will drive the future of quantum forward.

This week, **Simon Phillips, CTO at Oxford Quantum Circuits** discusses the forefront of quantum technology.

Quantum Events

I wanted to give a shout out to upcoming partner events for the quantum community. Mark these on your calendar:

Q2B Paris - The Roadmap to Quantum Value, presented by **QC Ware Corp.** and **Bpifrance**, will be held March 7-8 2024.

The Global Quantum Symposium will be held March 18-20 at uptownBasel.

The third annual **Commercialising Quantum Global 2024** will be held June 5-6 2024 in London.

Quantum.Tech Europe will return to Twickenham Stadium on 23 – 25, 2024.

Anindya Jain, Analyst of The Quantum Insider

Quantinuum advances QCCD architecture, achieving scalability with 32 qubits while maintaining gate fidelities.

SCALINQ launches LINQER600, the largest qubit device packaging solution, enabling control of hundreds of qubits.

CyberProtonics and Simplifi collaborated to integrate quantum-resistant encryption into home routers for enhanced data protection.

Have a great weekend!

**PUSH THE LIMITS
OF QUANTUM
SIMULATION TO
NEW FRONTIERS**

with Perceval on Nvidia H100 GPUs

Learn How to Compute in the
Quantum World

QUANDELA X Scaleway



Scaleway introduced its on-demand Quantum as a Service (QaaS) in collaboration with Quandela. This QaaS is powered by an exclusive circuit simulator from Quandela and accelerated by NVIDIA H100 Tensor Core GPUs, providing unprecedented access to the transformative capabilities of quantum computing. [Explore Now](#)

Insider Spotlights

Quantum Companies Notch Big Funding Wins



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Key Takeaways:

- Maybell Quantum closed a \$25 million funding round.
- Multiverse Computing secured a €25 million investment round.
- OQC reported that Chevron joined the quantum pioneer's \$100 million Series B.
- Because these investments come at a time of diminishing investor interest, not just in quantum, but in nearly every technology outside of AI, thought leaders are wondering whether this may be a turn-around signal.

Our Thoughts: It's been awhile since we've reported on a trifecta of big funding announcements in a single week. This week featured major funding news from Maybell Quantum, Multiverse Computing and OQC. How do we read this? It's too early to see these announcements as a trend and could very well be random data points. If not, the flurry of funding news could suggest a thaw in what has been called VC Winter. While financiers tend to hang the "winter" label on specific technologies struggling to gain traction among investors, this era has been different. Almost every technology has seen a diminishing amount of interest from investors, particularly venture capitalists, who most likely have had their risk models upended by inflation and high interest rates. High finance aside, there is a much simpler message: Maybell, Multiverse and OQC are well-run and innovative companies. Focusing on products that suit the market and proactively building the future will eventually win out, no matter what season it is in VC world.

Industry Updates



Quantinuum has made significant developments to the **scalability** of its QCCD architecture, by minimizing the number of control signals needed to manage qubits. This architecture features 32 fully connected qubits, proving its ability to scale up in qubit numbers without compromising gate fidelities or making trade-offs. This achievement directly addresses concerns about scalability in quantum computing, marking a significant step forward in the field. The QCCD architecture was initially proposed in 2002, involving short linear ion chains, and has now been demonstrated to effectively scale up a trapped-ion quantum computer.

SCALINQ has launched **LINQER600**, the biggest commercially available qubit device packaging solution. This solution, developed in collaboration with **IQM**, can control quantum devices with hundreds of qubits, marking a significant advancement in the field. **SCALINQ**'s **LINQER600** is fully non-magnetic and has undergone extensive testing with a 150-qubit chip named Radiance. This innovation opens opportunities for universities and companies to advance in building large-scale quantum computing systems.

Simplifi have signed an OEM agreement to integrate CyberProtonics' **cryptosystem** into Simplifi's newest router, aiming to bring quantum-resistant encryption and breach immunity to millions of hybrid workforce employees using home routers for sensitive information handling. The cryptosystem is a

TQI Product Updates

This month, we are excited to announce several additions to our Insight Section in our data intelligence platform designed to deliver the best value to our customers.

New Features in the TQI Insights Section:

- 1. Contact Details for Enterprise Users in EU and Asia:** We have added a comprehensive document listing contact details of quantum computing, sensing, and security enterprise users in the EU and Asia region.
- 2. Quantum Grants in Canada, the US, and the EU:** Added to the platform is also a document providing comprehensive details about various quantum-specific grants available in these regions.
- 3. Monthly Research Roundup:** A report detailing the main research news of the month, including information such as research topics, institutions, and descriptions.

Quote of the week

"Chevron's investment marks a significant milestone in harnessing quantum computing for the energy sector. We're excited to drive innovation and efficiency in exploration and renewables and pioneer enterprise-ready quantum in the energy sector."

ILANA WISBY, Chief Executive Officer at OQC

News of the week

SemiQon And CMC Microsystems Collaboration Aims to Accelerate Development of And Access to Silicon-based

Quantum Computers

Insider Brief SemiQon and CMC Microsystems announce a collaboration agreement to advance silicon-based quantum processor technology. SemiQon will supply CMC with prototypes of its semiconductor-based quantum processor chips for research purposes. CMC scientists will collaborate with SemiQon to accelerate the development of processors for more powerful quantum computers. PRESS RELEASE — SemiQon from Finland, and Canada's [...]

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Infleqtion Unveils 5-year Quantum Computing Roadmap, Advancing Plans to Commercialize Quantum at Scale

Insider Brief Infleqtion unveiled its 5-year quantum computing roadmap, looking at commercial quantum solutions by the end of the decade. The company also announced a program of substantial investments in both hardware and software dedicated to creating error-corrected logical qubits tailored for commercial applications. Critical Quote: "2024 is an inflection point for quantum technologies, with [...]

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Researchers: Deep-Tech Needs Old School Venture Capital

Insider Brief Venture capital is currently focused on turning a quick buck, not long-term investments, according to MIT Sloan Management Review columnists. In the past VCs funded cutting-edge, but risky companies and technologies. The piece was written by Thomas Ramge, associate researcher at the Einstein Center Digital Future and Rafael Laguna de la Vera, founding [...]

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Quantum Spotlight

The screenshot shows the Vescent company profile on The Quantum Insider platform. The top navigation bar includes links for Dashboard, Companies, Investors, Universities, Groups and Centers, Government Entities, Partnerships, Funding rounds, Government Funding, QCaaS / GPUs, Enterprise Users, Use Cases, Consortia, Reports, Taxonomy, News Engine, Media Monitoring, Market Map, Graph Explorer, and Visualisation.

Basic Information

- Description:** Vescent develops and manufactures novel electro-optic and laser technologies, some of which used in Quantum Technologies.
- Primary Classification:** Hardware Components
- Secondary Classification:** Lights and Lasers
- Tags:** Photonics, Lasers
- Business Type:** Private Company
- FTEs:** 11-50
- Founded:** 2002
- Updated:** 2024-03-08 4:54:42

Contact Information

- Website:** www.vescent.com
- Social networks:** LinkedIn

Detailed Information

Technology Detail: Vescent Photonics was founded in 2002 to develop and manufacture technologies in waveguides, electro-optics, lasers, and electronics for precision laser control. Vescent develops and manufacture CW and mode-locked lasers, frequency combs, low-noise electronic control systems, and micro-optic assemblies for precision spectroscopy, atomic clocks, quantum sensing and computing, and other emerging cold-atom applications.

Vescent has participated in the Quantum Marketplace, which is an initiative by the Quantum Economic Development Consortium (QED-C) to accelerate the development of the quantum industry. Here, they showcased their solutions for deployed quantum 2.0, as well as their lasers and components for quantum.

Investors

Total Disclosed Funding (USD)	Latest Funding Date
5,000,000	2024-03-07
Names of investors	Caruso Ventures, Corporate Fuel Advisors

Location Information

City	Golden
Country	United States
Region	Americas
State	Colorado

Map of Location

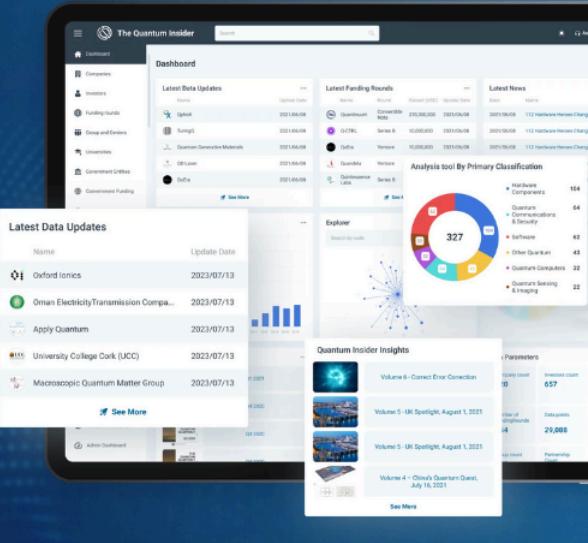
Vescent, a company specializing in Quantum 2.0 Technologies Enabling Commercialization, recently announced the closure of a \$5 million **seed funding round**. This funding was led by Corporate Fuel, with additional participation from Caruso Ventures, and aims to accelerate new product introductions, scale manufacturing to meet customer demand and expand market reach.

Vescent's focus on providing solutions for quantum applications like Frequency Combs, Lasers, and Controls for quantum timing, computing, networking, and sensing will be further enhanced through this capital infusion.

Learn More About **Vescent**

The Quantum Intelligence Platform

Our intelligence platform is the leading provider of Quantum Computing market data, reports, analytics, and insights on QC companies, investors, funding, and more.



The Quantum Insider

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